

African American Women's Involvement in Promoting Informed Decision-Making for Prostate Cancer Screening Among Their Partners/Spouses

American Journal of Men's Health
2018, Vol. 12(4) 884–893
© The Author(s) 2018
Reprints and permissions:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/1557988317742257
journals.sagepub.com/home/jmh


Jennifer D. Allen, ScD, MPH^{1,2}, Ifedayo C. Akinyemi, MPH³,
Amanda Reich, PhD³, Sasha Fleary, PhD⁴, Shalini Tendulkar, ScD²,
and Nadeerah Lamour²

Abstract

Routine prostate cancer screening is not recommended but African American men who are at higher risk for the disease should be offered the opportunity for shared decision-making with their health-care providers. This qualitative study sought to better understand the potential role of women in educating their male spouses/partners about prostate cancer screening. Nine focus groups were conducted ($n = 52$). Women were recruited from a variety of community venues. Those eligible were African American and married to or in a partnership with an African American male age ≥ 45 . Women provide numerous types of support to their male partners in an effort to facilitate participation in preventive health care. While women agreed that they would like to educate their partners about prostate cancer screening, they had little information about screening guidelines or the potential harms and limitations. The current findings suggest that women are eager information-seekers and can disseminate information to men and facilitate their efforts to make more informed decisions about prostate cancer screening. Women should be included in educational interventions for to promote informed decision-making for prostate cancer screening.

Keywords

prostate cancer screening, shared decision-making, African American men and women, patient education

Received February 6, 2017; revised September 21, 2017; accepted September 25, 2017

Prostate cancer is the most common noncutaneous cancer among men in the United States. The American Cancer Society (ACS) estimates nearly one in six men will develop prostate cancer in his lifetime (ACS, 2016). African American (AA) men have an elevated risk of developing prostate cancer and dying from the disease, compared to the general population (NCI, 2014). African American men are 60% more likely to be diagnosed with the disease and 2.5 times more likely to die from it compared to Caucasian men (ACS, 2016).

Prostate cancer screening with the prostate specific antigen (PSA) test is the primary early detection method for the disease. However, the test has serious limitations. The PSA test has a high rate of false-positive findings, which can lead to unnecessary biopsies and significant anxiety (Etzioni et al., 2002; Helfand et al., 2013; Welch & Albertsen, 2009). Many prostate cancers are slow growing and do not require active treatment (Hao et al.,

2011). Over-diagnosis and over-treatment of the disease are associated with issues that significantly impact a man's quality of life (e.g., incontinence, improper bowel function, and erectile dysfunction) (Barry, & Mulley, 2009; Potts, Lutz, Walker, Modlin, & Klein, 2010; Smith

¹Department of Community Health Tufts University, Medford, MA, USA

²Department of Community Health Tufts University, Medford, MA, USA

³Department of Public Health and Community Medicine, Tufts University School of Medicine, Boston, MA, USA

⁴Eliot-Pearson Department of Child Study and Human Development, Tufts University, Medford, MA, USA

Corresponding Author:

Jennifer Allen, ScD, MPH, Professor & Chair, Department of Community Health Tufts University, 574 Boston Avenue, Medford, MA 02155, USA.

Email: jennifer.allen@tufts.edu



et al., 2011). Consequently, the U.S. Preventive Services Task Force (USPSTF) recommends *against* routine screening of all men at average risk for prostate cancer (Chou et al., 2011). Recommendations emphasize that providers should discuss the advantages and limitations of screening with the PSA test, especially among those at elevated risk of the disease, which includes African American men. For example, the American Cancer Society recommends that African American men should discuss prostate cancer and screening methods with a physician beginning at age 45 years (ACS, 2013). Most other medical organizations, such as the American College of Physicians and the American Urological Society, make similar recommendations, emphasizing that men be educated about the risks, benefits, and potential limitations of prostate cancer screening to ensure they make informed decisions regarding screening choices in partnership with their providers (Mulhem, Fulbright, & Duncan, 2015; NCI, 2012; Smith et al., 2011; Wolf et al., 2010). While the digital rectal exam (DRE) can also be used for screening, the USPSTF does not address its utility as a screening tool. Other organizations, such as the American Academy of Family Physicians, specifically recommend against it, due to its low sensitivity and specificity (Mulhem et al., 2015). For this reason, we focused on the PSA screening test in this study.

In order for men to actively participate in decision-making with their providers (a process called “shared decision-making”), they must first understand their risk for prostate cancer, the severity of the disease, the characteristics of currently available prostate cancer screening methods (e.g., PSA), and clarify their values as they relate to screening, a process called “informed decision-making” (Elwyn et al., 2012). This is particularly important for African American men, given their elevated risk for developing and dying from this disease (Powell, Bock, Ruterbusch, & Sakr, 2010).

A growing body of literature documents factors associated with African American men’s decisions to undergo prostate cancer screening (Pedersen, Arnes, & Ream, 2012). In general, men with higher levels of income, education, insurance coverage, and those with a family member who has been diagnosed with the disease are more likely to be screened than their counterparts (Halbert et al., 2015; Harmon, 2014; Pedersen et al., 2012; Sanchez, Bowen, & Hart, 2007). Other factors that may impact African American men’s screening decisions include lack of awareness of heightened risk of the disease (Shavers, Underwood, & Moser, 2009; Shaw, Scott, & Ferrante, 2013), diminished access to health care (Forrester-Anderson, 2005), mistrust of health-care providers, (Allen, Stoddard, & Sorenson, 2007; Spain, Carpenter, Talcott, 2008), and poor communication with health-care providers (Allen et al., 2007; Halbert et al.,

2015; Hughes, Sellers, Fraser, Teague, & Knight, 2007; Shaw et al., 2013).

In our prior studies (Allen et al., 2007; Allen, Kennedy, Wilson-Glover, & Gilligan, 2007; Allen, Mohllajee, Shelton, Drake, & Mars, 2008; Allen et al., 2010a), as well as those of others (Friedman, Thomas, Owens, & Hebert, 2015; Hunter, Vines, & Calisle, 2015; Jackson, Owens, Friedman, & Dubose-Morris, 2015; Miller, 2014b; Owens, Jackson, Thomas, Friedman, & Hébert, 2015; Shaw et al., 2013), it has been documented that a female spouse or partner may play an important role in providing health information, helping to clarify values as they relate to health decisions, and assisting with arrangements to access medical care. Indeed, family members are often considered the most trusted source of health-related information (Griffith, 2012; Holt, 2015). Given the important role that spouses or partners can play in men’s health-care decisions, it has been suggested that educating women about prostate cancer screening and equipping them with strategies to prompt their partners to discuss this topic with their healthcare providers could be an effective tool in promoting informed, shared decision-making (Miller, 2014a).

While there is a sizeable literature on the importance of women’s role in decision-making for prostate cancer treatment (Chambers, Pinnock, Lepore, Hughes, & O’Connell, 2011; Le et al., 2016; Manne et al., 2011; Rivers et al., 2011; Owens, Friedman, & Hebert, 2017; Van Bogaert, Hawkins, Pingree, & Jarrard, 2012), we found only four studies that explored the potential role for women spouses/partners of African American men in the process of decision-making for prostate cancer screening (Friedman et al., 2015; Hunter et al., 2015; Jackson et al., 2015; Miller, 2014a).

We elected to focus on African Americans in this study given the disproportionate risk of developing and dying from prostate cancer. In this study, we chose to focus data collection efforts among African American women, because a small proportion of marriages among AA men are inter-racial (12%) (Qian & Lichter, 2011; Wang, 2015). Nonetheless, it is important to note that AA men may have partners that do not share their race/ethnicity and that they may have male partners.

Data for this study were collected as part of a larger study that sought to develop, implement, and evaluate an intervention to promote informed decision-making specifically among African American men. The overarching aim of this study is to explore the feasibility and acceptability of including African American women in outreach and education efforts to reach African American men.

Methods

Qualitative research methods provide rich, contextualized data about complex social and organizational

Table 1. Phase One: Focus Group Constructs and Sample Questions.

Construct	Sample questions
Discussions regarding health issues and medical decision-making	<ul style="list-style-type: none"> • Describe how you talk to your husband or loved one about serious health issues? (How do you bring it up? What words do you use?) • What's a typical scenario where health might come up? • Would you say it is easy or difficult to talk to your loved one about health? Why? <ul style="list-style-type: none"> ○ What makes it difficult to talk to your husband/loved one about health issues? ○ IF DIFFICULT: How do you move past these difficulties? What are some of the ways you persuade your husband/loved one to take better care of his health? • Can you describe a time where he initiated a conversation with you about his health? What was that like?
Involvement in partner's health care	<ul style="list-style-type: none"> • How involved are you in your partner's health care? • Oftentimes, it is said that women should support their partner through different health issues. What does being supportive mean to you?
Beliefs about prostate cancer, risk factors and screening	<ul style="list-style-type: none"> • What words or images come to mind when you hear about getting screened for diseases? Prostate cancer? • Do you think prostate cancer is an important health issue for your partner/spouse? Why or why not? • How serious do you think this disease is? • What do you think makes it easy or difficult for men to be screened for prostate cancer? • How can you help make this screening process less difficult for your loved one?
Preferences regarding sources of health information	<ul style="list-style-type: none"> • How do you like to get information about health? • Who should present this information?
Strategies to increase partner's awareness about general health and prostate cancer	<ul style="list-style-type: none"> • In a perfect world, where your loved one listens to every piece of advice you give him, what are the few key things you would tell him about taking care of his health?

phenomena that may be impossible or otherwise cost-ineffective to obtain through traditional quantitative methods. We elected to utilize focus groups for data collection, as this method provides a mechanism for "giving a voice" to participants' experiences, enables individuals to reflect on their own experiences and perspectives in relation to others, and provides rich contextualized data that can inform the development of interventions. We conducted a series of focus group discussions with African American women to gather in-depth information about women's knowledge, attitudes and behaviors as they relate to prostate cancer screening. Institutional Review Boards representing the Harvard School of Public Health and Tufts Medical Center reviewed and approved study procedures.

Recruitment of Participants

We recruited participants using a variety of strategies, including announcements at community meetings, distribution of flyers in community locations (e.g., local parks, Laundromats, churches, public housing), advertisements in local papers, and by word-of-mouth. Women who expressed an interest in participating were screened for

eligibility: they self-reported race as African American and had an African American male partner age 45+ who had no personal history of prostate cancer.

Data Collection

A semistructured focus group guide (see Table 1) was developed based on prior formative work (Allen et al., 2007) and included domains that have been deemed salient in other published studies (Odedina, 2004; Sanchez et al., 2007; Wray et al., 2009). Questions addressed women's level of knowledge about prostate cancer and screening (including the potential risks and harms), their attitudes toward prostate cancer screening, as well as strategies they employed to support their partner in taking care of his health and accessing health-care services.

Groups were conducted between July and October, 2014 by trained female, African American focus group facilitators. Training consisted of two 4-hr workshops facilitated by the Principal Investigator (JDA). Objectives of the training were to: (a) discuss the purpose of focus groups and study objectives, (b) describe skills and techniques required by moderators (e.g., handling group

dynamics, need for probing questions), (c) role play moderator behavior, and (d) conduct “mock” focus groups so that each participant could demonstrate whether or not they had mastered the skills required. In addition to the formal training, facilitators first served as note-takers in 1–2 focus groups before taking a lead role as moderator.

Written informed consent documents were provided to all participants. Immediately prior to each discussion group, the facilitator verbally reviewed the consent information and answered any questions. Participants also completed a brief demographic questionnaire. Each received a gift card in the amount of \$50 to compensate them for their time (90 min).

Analysis. All focus groups were audiotaped and transcribed. Following transcription, the facilitator and note-taker (also present for each group) reviewed documents for accuracy. The thematic analysis included a hybrid of inductive and deductive approaches (Fereday & Muir-Cochrane, 2006). First, three members of the research team (JA, IA, NL) independently reviewed each transcript and identified initial themes. Next, in a series of meetings, team members compared their themes and through an iterative group process of consensus, codes were developed into superordinate and subordinate categories. Following discussion and consensus regarding the superordinate themes, team members independently conducted line-by-line coding by compiling themes and descriptive quotes into Excel spreadsheets. These documents were reviewed and compared. When there was a disagreement regarding the meaning of a specific quote, we returned to the transcript and/or audiotape to review and come to consensus. We conducted groups until the point of saturation and no new major themes emerged from the data (Fereday & Muir-Cochrane, 2006).

Results

Participant Characteristics

A total of 52 women participated in nine separate focus group discussions. Focus groups were held at local public housing facilities, public libraries, and at churches. Sociodemographic characteristics of participants are reported in Table 2. Less than half of the sample (41%) were employed, about two thirds (61%) had annual incomes at or below \$29,999, and just over two-thirds (64%) had received at least some college education. Most (51%) were enrolled in a public health insurance plan.

Major Themes

Three major themes emerged from the analysis reflect the participant's perceptions and beliefs regarding prostate

cancer and screening for the disease, as well as perceptions regarding their partner's health behaviors. In order of prevalence, these themes are as follows: (a) women lack knowledge regarding the controversy about prostate cancer screening and they are generally not aware of disadvantages to screening, and want to become more educated about prostate cancer screening, (b) women offer extensive social support to their partners in relation to health, and (c) women see barriers that prevent men from accessing the health-care system in general, and for prostate cancer screening, specifically.

Women Lack Knowledge About Prostate Cancer Screening, but Want to Be Educated About it

In each of the focus groups, women were unyielding in their support for cancer screening—seeing this as essential to living a long and healthy life. Across all of the groups, participants expressed strong support for cancer screening and annual check-ups—even for controversial cancer screening methods, including prostate screening and mammograms for women <40 years of age. One woman passionately stated, “*You gotta go get tested, you gotta go to the hospital have your annual check-ups ... so you can live longer.*” Other women made similar statements, including: “*...early detection is the best thing because then they can catch it and work on it,*” and “*I get my mammogram every year. They should have something for prostate every year.*”

In addition to their fervent support for cancer screening, women also spoke frequently about their desire for more information about prostate cancer. One stated: “*I'm just really learning all these cancers, men they don't educate themselves [about prostate cancer]...education is the key thing about living. You must educate yourself on any issue and prostate cancer is one of the issues. I want to learn more!*” Echoing this desire to gain more knowledge about prostate cancer and screening, one woman shared: “*...we want workshops that are set specifically towards women getting information about prostate cancer, and how to deal with your mate or your loved one [about this].*”

More specifically, few women knew about risk factors for prostate cancer, African American men's elevated risk for the disease, or about screening with the PSA test. Notably, none of the women expressed awareness of the controversial nature of this test. Women cited their need of and desire for more information about this topic. For example, one woman shared: “*I don't have a lot of information about prostate cancer as I do for a lot of other things. For me, my first thing is I like to be informed so at least when I'm talking to*

Table 2. Sociodemographic Characteristics of Focus Group Participants (N = 52).

Demographics	Number	Percent (%)
Age (years)*		
30–39	5	(10)
40–49	16	(31)
50–59	16	(31)
60 and above	14	(29)
Household income*		
Less than \$10,000	17	(33)
\$10,000–\$29,999	14	(28)
\$30,000–\$49,999	9	(18)
More than \$50,000	11	(22)
Marital status		
Not married	20	(39)
In a relationship/living as married	32	(61)
Employment status*		
Employed	21	(41)
Unemployed	11	(22)
Homemaker	8	(16)
Retired	11	(22)
Educational level		
Less than high school	2	(4)
Some high school	8	(15)
GED or high school	9	(17)
Some college or more	33	(64)
Health insurance status		
Private insurance	22	(43)
Public insurance	26	(51)
No health insurance	3	(6)
Partner previously screened for prostate cancer?		
Yes	32	(62)
No	12	(23)
I don't know	8	(16)

*Note. Total varies due to missing responses; percentages may not total 100% due to rounding. GED; General Education Diploma.

someone, I can then say 'Listen, this is what's going to happen... 'These tests, they're not gonna kill you they're just uncomfortable. But not [getting screened] can kill you.' Others concurred, making statements such as: "I don't even know [about prostate cancer]... We need to be able to get that information."

Across all of the groups, women believed that prostate cancer is an important health issue for the African American community, with most knowing someone who had died from the disease. All of the women agreed that they should be educated about this issue in order to share information and provide support to their partners. "We should have that [information] right on the tip of our tongue. Just like we can rattle off something about diabetes or high blood pressure or whatever that [prostate cancer] should certainly be part of the conversation as well," said one participant. Another, expressing a desire to be more involved with prostate cancer screening decisions

added, "I don't know how to talk to a man about prostate cancer. What do I know? I want to know." Overall, participants were ready to take action—many women shared that they were going to look for more information about prostate cancer once they had completed the focus group discussion.

Women Offer Extensive Social Support to Their Partners in Relation to Health

Participants from each focus group discussed supportive roles—specifically informational, emotional, and logistical/instrumental forms of support—that they assume in order to motivate their partner to engage in healthy behaviors. The majority of women spoke of independently seeking health information that they could share with their partner, thus providing a form of informational support. "They [providers] give you medical terms... I go

step by step and try to explain to him, or have his doctor explain to him what all these medical terms mean," one woman stated. Several other women shared that they collect pamphlets from clinics to share with their partner and his friends. One woman spoke about it in this way: "Whenever I go to any kind of health fair or whatever, I go around and pick up every piece of literature. And then I take it and put it where he sits at and watches TV. I just set it right there on the table. And he does look at it."

Women emphasized a desire to be informed about their partner's health status and the details of his visits to the doctor. One woman shared, "I want to hear the information. Because he'll say 'they said everything was good...' but he won't do a follow up. That's why I need to go..." Others echoed the same theme: "I go right in with mine [to doctor's appointments]. I want to know what's going on." By accompanying their partners to his doctor's appointments, women said that they could obtain specific information about their partners' health status and provider recommendations to ensure there was proper follow-up and adherence.

A majority of participants reported that they provide emotional support for their partners, due to the perception that men are afraid of visiting the doctor and receiving news of a health problem. In order to help their partners overcome this fear, women spoke about providing comfort, encouragement, and being active listeners when their partner decided to discuss his health issues. As one participant described, "...the most thing I can do is show my husband that I love him and I care about him." Another woman shared, "... just be supportive, listen to them when they have problems...and see what they need." Other participants also made similar statements. Some participants agreed that women must be advocates for their partners. "We're supposed to speak up for them," one woman declared. Prayer was another tool used to advocate for men specifically regarding prostate cancer. "You pray, I always say a quick prayer. Pray to God...So many men are having prostate cancer...Don't be afraid, give it to God," said one woman.

Participants also actively engaged in providing logistical or instrumental support for their loved ones. Specifically, many stated that they scheduled doctor's appointments for their partners and ensured that men followed up with physician recommendations. One woman admitted, "Well you follow through. I go to the doctor sometimes with my husband and you follow through. And sometimes I email the doctor ahead of time and say, 'you need to check this.'"

In addition, most of the women discussed methods by which they "monitored" or assessed their partners' health status in order to be aware of any signs of illness. "I watch and see. If my man's a little more tired than usual, or more agitated than usual, or more sensitive...That's an

indication that we have to go to the doctor..." a participant reported. Many other women made similar statements. A majority of the women seemed to engage in this behavior due to the belief that their partner often hides health issues. "He ain't gonna tell me! I could notice with my eyes if something's wrong," one woman reported.

Major Barriers Prevent African American Men From Visiting the Doctor

Participants cited numerous factors that they perceived as barriers to men accessing health care. Fear, financial concerns, and the notion that one has to be "macho" (e.g., immune to illness or pain) were identified as barriers for men in each of the focus group discussions. Fear was an especially salient topic; women expressed that men have a major fear of being vulnerable if labeled with an illness. "Certain guys don't want to take the tests their doctors want them to take because they're scared of what might come up." Many women reported that men avoid showing signs of weakness in regards to their health. "He feels like if he shows sickness, he shows weakness. He's just like, he always has to be so macho, so manly and everything," one woman said of her partner. Women expressed a desire to change the conversation about prostate cancer and shift the emphasis from "manhood" to living a long life. One woman stated it this way:

"They want to be tough ...they figure if they don't keep their guard up, they're weak but that's not it...some of them got to keep their guard up, I'm a man, I can do this. We're trying to tell them it's not about that, it's about living a long life."

The women discussed strategies to overcome these barriers, such as offering support and monitoring their partner's daily activities, but being knowledgeable about a health issue (e.g., prostate cancer) emerged as the common strategy utilized by women across the groups.

Conclusions

This qualitative study explored African American women's knowledge, attitudes and beliefs about prostate cancer screening and assessed their potential role as prostate cancer educators for their male AA partners. Despite having little information about prostate cancer or screening for prostate cancer, the vast majority of women expressed a strong belief that men should be screened routinely. None of the participants expressed awareness of the controversy associated with routine prostate cancer screening. On the contrary, they unanimously agreed that screening saves lives. Women universally endorsed the notion that all men should be screened and that this was "the key to living a long life." They rejected the notion that prostate cancer

screening is a decision that a man should make with his medical provider after having been informed of potential limitations or risks (“*It’s not a decision. Just do it*”).

As with most prior studies on the topic, women, like men (Gerd, 2009), tended to overestimate the efficacy of prostate screening in terms of a reduction in disease-specific mortality. Across multiple studies, few people are aware of the concept of over-detection (Sutkowi-Hemstreet, 2015; Van den Bruel, 2015) or can identify potential harms of screening (Sutkowi-Hemstreet, 2015), and few decline screening even when provided information about risks and benefits (De Bekker-Grob, 2013; Pemeger, 2010).

In their commentary on promoting informed prostate cancer screening decisions, Owens, Friedman, and Hebert (2017) recommend that prostate cancer screening should be treated as a “family affair” since family members, including partners, make men more aware of prostate cancer screening, encourage them to visit health-care providers, and are the driving force behind health-related action. This sentiment was reiterated in focus groups; women expressed a desire to be informed themselves, so that they could educate, advocate, and support their partner’s screening decisions. In a recent quantitative survey conducted among a convenience sample of African American women, Eastland (2017) reported that women had low levels of knowledge on prostate cancer and screening; nearly two-thirds were not aware that African American men are at elevated risk for the disease. Given low levels of knowledge and the steadfast support of prostate cancer screening for all men, efforts to include women in prostate cancer initiatives will require both improving their knowledge about screening, but also efforts to promote a balanced sense of the benefits, limitations, and potential harms of currently available screening methods. Much like the controversy regarding breast cancer screening among women in their forties (Allen et al., 2013), there is a widespread belief that early detection methods are accurate and consistently save lives, suggesting that there may be a need to build awareness of the prostate screening controversy between the balance of potential benefits and harms.

While there is a large amount of literature on women’s roles in prostate cancer *treatment* decisions (Chambers et al., 2011; Manne et al., 2011; Van Bogaert et al., 2012), most screening interventions have focused exclusively on men. However, there is growing evidence to support the important role that women may play in this decision-making process. Studies have suggested that women be included in prostate cancer initiatives, as they may be able to help men overcome barriers to effective communication about screening options with health-care providers (Friedman et al., 2015; Schoenfeld, 2015).

We were only able to locate one intervention study that included women in an educational program focused on prostate cancer screening (Saunders, Holt, Le et al. 2015). The study was conducted in African American churches and reported that men who participated in educational sessions *with their partners* were better informed than men who attended *all male groups* (Holt, 2015).

Providing education to women may help them provide different types of support that encourages their partners to live a healthy life. In the current study, women reported providing informational support (e.g., advice, provision of information), emotional support (e.g., discussing concerns, offering encouragement and positive feedback), as well as instrumental/logistical support (e.g., making appointments, accompanying partners to appointments). Many expressed the belief that without this support, their partners would not address important health issues nor would they visit their providers for preventive services, including screening. These findings are corroborated by other qualitative studies conducted among African American men (Allen et al., 2007; Hunter, Vines, & Calisle, 2015; Odedina, 2004) and women (Friedman et al., 2015) with respect to prostate cancer screening. With targeted education for women, they may be able to enhance their spouses’/partners’ cognizance of benefits, limitations, and potential harms of currently available prostate screening methods.

In this study, women talked about men’s fear of “finding a problem” or receiving a diagnosis and being perceived as “vulnerable” or weak. Many suggested that the dialogue related to prostate cancer should be shifted from one of potential vulnerability to one of strength: “*We’re trying to tell them it’s about living a long life*” and “*It’s not about their manhood.*” Other qualitative studies conducted among African American men (Allen et al., 2007; Hunter, Vines, & Calisle, 2015; Pedersen et al., 2012; Reynolds, 2008; Schoenfeld, 2015) and women (Friedman et al., 2015) identified similar barriers that they perceive hinder men from seeking preventive health services in general, and prostate cancer screening in particular. Education for women should also include strategies that help to address the many barriers to preventive health seeking they routinely identify among their male partners. Reframing the issue of prostate cancer to positive notions of strength, rather than vulnerability, should be further explored. In our own prostate cancer screening intervention work among general male audiences, we utilized messaging that men should “Take the Wheel” or take charge of their decision-making in an effort to engage them in decisions about screening (Allen et al., 2010b; Allen et al., 2011).

Several limitations of this study warrant mention. We conducted a small exploratory study with a small sample of convenience. As such, these results are not

generalizable beyond the participants of this study. However, the study was not intended to be representative of all African American women; the intention was to gain a deeper understanding of themes associated with prostate cancer screening in order to develop educational messages directed at spouses/partners of African American men and to guide future inquiry. Additionally, we acknowledge that the current findings may have been subject to social desirability bias, or the inclination to respond in a manner that would be viewed favorably by the researchers or other participants in the focus groups. However, we suspect that this is unlikely, given the absence of knowledge regarding the screening controversy.

Practice Implications

These findings have potentially important implications for outreach and education directed toward African American men. First, in terms of education, it is important to note that while prostate cancer screening is no longer routinely recommended, men at high risk—including African American men—should have access to information about prostate cancer screening to facilitate informed, value-driven decisions. Given our findings that African American women want and are seeking health information for their African American partners, the formal role of women should be further explored in educational interventions for prostate cancer screening. This approach may also be useful in addressing other health issues. Exploring the potential of involving female family members in educational initiatives designed to address African American men's health issues in general—and in prostate screening in particular—warrants further study.

Additionally, program planners should be aware that African American women may be more likely to *promote screening* to their male partners as opposed to *promoting informed decision-making* in the absence of appropriate information about the benefits and risks of screening. Further research should explore how educational initiatives can balance the potential tension between the strong desire for screening and the recommended guidelines of major medical organizations.

Acknowledgments

We would like to thank Dana Mars, MSN, Nicolas Gordon, MD, MPH, Danny Hillaire, PhD Israel Adeloye, MPH, and Linda Hudson, ScD for their contributions to this work.

Declaration of Conflicting Interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported in part by a grant from the National Institutes of Minority Health and Disparities (5R21CA178296-02, Allen: PI).

References

- ACS. (2013). Prostate cancer early detection. Retrieved from <http://www.cancer.org/acs/groups/cid/documents/webcontent/003182-pdf.pdf>
- ACS. (2016). American Cancer Society recommendations for prostate cancer early detection. Retrieved from <http://www.cancer.org/cancer/prostatecancer/moreinformation/prostatecancerearlydetection/prostate-cancer-early-detection-acs-recommendations>
- Allen, J., Stoddard, A., & Sorenson, G. (2007). Do social network characteristics predict mammography screening practices? *Health Education and Behavior, 35*(6), 763–776.
- Allen, J. D., Bluethmann, S. M., Sheets, M., Opdyke, K. M., Gates-Ferris, K., Hurlbert, M., & Harden, E. (2013). Women's responses to changes in US Preventive Task Force's mammography screening guidelines: results of focus groups with ethnically diverse women. *BMC Public Health, 13*(1), 1169.
- Allen, J. D., Kennedy, M., Wilson-Glover, A., & Gilligan, T. D. (2007). African-American men's perceptions about prostate cancer: implications for designing educational interventions. *Social Science & Medicine, 64*(11), 2189–2200.
- Allen, J. D., Mohllajee, A. P., Shelton, R. C., Drake, B. F., & Mars, D. R. (2008). A computer-tailored intervention to promote informed decision making for prostate cancer screening among African American men. *American journal of men's health*.
- Allen, J. D., Othus, M. K., Hart, A., Tom, L., Li, Y., Berry, D., & Bowen, D. (2010a). A randomized trial of a computer-tailored decision aid to improve prostate cancer screening decisions: Results from the take the wheel trial. *Cancer Epidemiology Biomarkers & Prevention, 19*(9), 2172–2186.
- Allen, J. D., Othus, M. K., Hart, A., Tom, L., Li, Y., Berry, D., & Bowen, D. (2010b). A randomized trial of a computer-tailored decision aid to improve prostate cancer screening decisions: Results from the take the wheel trial. *Cancer Epidemiology and Prevention Biomarkers, 19*, 995–1004. EPI-1009-0410.
- Allen, J. D., Othus, M. K., Hart Jr, A., Mohllajee, A. P., Li, Y., & Bowen, D. (2011). Do men make informed decisions about prostate cancer screening? Baseline results from the “take the wheel” trial. *Medical Decision Making, 31*(1), 108–120.
- Barry, M. J. Screening for prostate cancer—The controversy that refuses to die. *N Engl J Med.* 2009 Mar 26;360(13):1351–1354. doi: 10.1056/NEJMe0901166. Epub 2009 Mar 18.
- Barry, M. J., & Mulley, A. (2009). Why are a high overdiagnosis probability and a long lead time for prostate cancer screening so important? *Journal of the National Cancer Institute, 101*(6), 362–363.

- Chambers, S. K., Pinnock, C., Lepore, S. J., Hughes, S., & O'Connell, D. L. (2011). A systematic review of psychosocial interventions for men with prostate cancer and their partners. *Patient Education and Counseling, 85*(2), e75-e88.
- Chou, R., Crosswell, J. M., Dana, T., Bougatsos, C., Blazina, I., Fu, R., . . . Lin, K. (2011). Screening for prostate cancer: a review of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med, 155*(11), 762-771.
- De Bekker-Grob, E., et al. (2013). Men's preferences for prostate cancer screening: A discreet choice experiment. *British Journal of Cancer, 108*(3), 533-541.
- Eastland, Taryn Y. (2017). A survey of the knowledge of African-American women about prostate cancer screening. *Journal of Cancer Education, 1-5*.
- Elwyn, G., Frosch, D., Thomson, R., Joseph-Williams, N., Lloyd, A., Kinnersley, P., Cording, E., Tomson, D., Dodd, C., Rollnick, S., Edwards, A., & Barry, M. (2012). Shared decision making: A model for clinical practice. *Journal of General Internal Medicine, 27*(10), 1361-1367.
- Etzioni, R., Penson, D. F., Legler, J. M., Di Tommaso, D., Boer, R., Gann, P. H., & Feuer, E. J. (2002). Overdiagnosis due to prostate-specific antigen screening: lessons from US prostate cancer incidence trends. *Journal of the National Cancer Institute, 94*(13), 981-990.
- Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International journal of qualitative methods, 5*(1), 80-92.
- Forrester-Anderson, I. (2005). Prostate cancer screening perceptions, knowledge and behaviors among African American men: focus group findings. *Journal of Health Care for the Poor and Underserved, 16*(4), 22-30.
- Friedman, D., Thomas, T., Owens, O., & Hebert, J. (2012). It takes two to talk about prostate cancer: A qualitative assessment of African American men's and women's cancer communication practices and recommendations. *American Journal of Men's Health, 6*(6)
- Friedman, D. B., Johnson, K. M., Owens, O. L., Thomas, T. L., Dawkins, D. S., Gansauer, L., Bartelt, S., Waddell, N. M., Talley, J., Bearden, J. D., & Hébert, J. R. (2012). Developing partnerships and recruiting dyads for a prostate cancer informed decision making program: Lessons learned from a community-academic-clinical team. *Journal of Cancer Education, 27*(2), 243-249.
- Gerd, G., Jutta, M., & Ronald, F. (2009). Public knowledge of benefits of breast and prostate cancer screening in Europe. *Journal of the National Cancer Institute, 101*(17), 1216-1220.
- Griffith, D., Ellis, K., & Allen, J. (2012). How does health information influence African American men's health behavior? *American Journal of Men's Health, 6*(2), 156-163.
- Halbert, C. H., Gattioni-Celli, S., Savage, S., Prasad, S. M., Kittles, R., Briggs, V., . . . Johnson, J. C. (2015). Ever and annual use of prostate cancer screening in African American men. *American Journal of Men's Health.*
- Hao, Y., Gu, X., Zhao, Y., Greene, S., Sha, W., Smoot, D., Califano, J., Wu, T. C., & Pang, X. (2011). Enforced expression of miR-101 inhibits prostate cancer cell growth by modulating cyclooxygenase-2 pathway in vivo. *Cancer Prevention Research, canprevres-0333*.
- Harmon, et al. (2014). Ethnic differences and predictors of colonoscopy, prostate-specific antigen, and mammography screening participation in the multiethnic cohort. *Cancer Epidemiology, 38*(2), 162-167.
- Helfand, B. T., Loeb, S., Hu, Q., Cooper, P. R., Roehl, K. A., McGuire, B. B., Baumann, N. A., & Catalona, W. J. (2013). Personalized prostate specific antigen testing using genetic variants may reduce unnecessary prostate biopsies. *The Journal of Urology, 189*(5), 1697-1701.
- Holt, C., et al. (2015). Informed decision-making and satisfaction with a church-based men's health workshop series for African-American men: men-only vs. mixed-gender format. *Journal of Cancer Education, 30*(3), 530-534.
- Hughes, G. D., Sellers, D. B., Fraser, L., Jr., Teague, R., & Knight, B. (2007). Prostate cancer community collaboration and partnership: education, awareness, recruitment, and outreach to southern African-American males. *J Cult Divers, 14*(2), 68-73.
- Hunter, J. C., Vines, A. I., & Carlisle, V. (2015). African Americans' perceptions of prostate-specific antigen prostate cancer screening. *Health Education & Behavior, 42*(4), 539-544.
- Jackson, D. D, Owens, O. L., Friedman, D. B., & Dubose-Morris, R. (2015). Innovative and community-guided evaluation and dissemination of a prostate cancer education program for African-American men and women. *Journal of Cancer Education, 30*(4), 779-785.
- Le, Y. C. L., McFall, S. L., Byrd, T. L., Volk, R. J., Cantor, S. B., Kuban, D. A., & Mullen, P. D. (2016). Is "Active Surveillance" an Acceptable Alternative? A qualitative survey of couples' decision making about early-stage, localized prostate cancer. *Narrative Inquiry in Bioethics, 6*(1), 51.
- Manne, S. L., Kissane, D. W., Nelson, C. J., Mulhall, J. P., Winkel, G., & Zaider, T. (2011). Intimacy-enhancing psychological intervention for men diagnosed with prostate cancer and their partners: A pilot study. *The Journal of Sexual Medicine, 8*(4), 1197-1209.
- Miller, S. (2014a). Randomized trial of print messaging: the role of partner and monitoring style in promoting provider discussions about prostate cancer screening among African American men. *Psycho-oncology, 23*(4), 404-411.
- Miller, S. (2014b). Randomized trial of print messaging: the role of partner and monitoring style in promoting provider discussions about prostate cancer screening among African American men. *Psycho-oncology, 23*(4), 404-411.
- Mulhem, E., Fulbright, N., & Duncan, N. (2015). Prostate cancer screening. *American family physician, 92*(8).
- NCI. (2012). National Cancer Institute fact sheet: Prostate-specific antigen (PSA) test. Retrieved from <http://www.cancer.gov/cancertopics/factsheet/detection/PSA>
- NCI. (2014). Genetics of prostate cancer (PDQ). Retrieved from <http://www.cancer.gov/cancertopics/pdq/genetics/prostate/HealthProfessional/Page1#top>
- Odedina, F., Scrivens, J., Emanuel, A., LaRose-Pierre, M., & Nash, R. (2004). A focus group study of factors influencing African-American men's prostate cancer screening

- behavior. *Journal of the National Medical Association*, 96(6), 780–788.
- Owens, O. L., Jackson, D. D., Thomas, T. L., Friedman, D. B., & Hébert, J. R. (2015). Prostate cancer knowledge and decision making among African-American men and women in the southeastern United States. *International Journal of Men's Health*, 14(1), 55.
- Owens, O. L., Friedman, D. B., & Hebert, J. (2017). Commentary: Building an Evidence Base for Promoting Informed Prostate Cancer Screening Decisions: An Overview of a Cancer Prevention and Control Program. *Ethnicity & Disease*, 27(1), 55.
- Pedersen, V., Armes, J., & Ream, E. (2012). Perceptions of prostate cancer in Black African and Black Caribbean men: A systematic review of the literature. *Psycho-oncology*, 21, 457–468.
- Pemeger, T., Cullati, S., Shiesari, L., & Charvet-Berard, A. (2010). Impact of information about risks and benefits of cancer screening on intended population. *European Journal of Cancer*, 46(12), 2267–2274.
- Potts, J. M., Lutz, M., Walker, E., Modlin, C., & Klein, E. (2010). Trends in PSA, age and prostate cancer detection among black and white men from 1990–2006 at a tertiary care center. *Cancer*, 116(16), 3910–3915.
- Powell, I. J., Bock, C. H., Ruterbusch, J. J., & Sakr, W. (2010). Evidence supports a faster growth rate and/or earlier transformation to clinically significant prostate cancer in black than in white American men, and influences racial progression and mortality disparity. *Journal of Urology*, 183(5), 1792–1796.
- Qian, Z., & Lichter, D. T. (2011). Changing patterns of interracial marriage in a multiracial society. *Journal of Marriage and Family*, 73(5), 1065–1084.
- Reynolds, D. (2008). Prostate cancer screening in African American men: Barriers and methods for improvement. *American Journal of Men's Health*, 2(2), 272–278.
- Rivers, B. M., August, E. M., Gwede, C. K., Hart, A., Donovan, K. A., Pow-Sang, J. M., & Quinn, G. P. (2011). Psychosocial issues related to sexual functioning among African-American prostate cancer survivors and their spouses. *Psycho-Oncology*, 20(1), 106–110.
- Sanchez, M., Bowen, D., & Hart, A. (2007). Factors influencing prostate cancer screening decisions among African American men. *Ethnicity & Disease*, 17(2), 374–380.
- Saunders, D. R., Holt, C. L., Le, D., Slade, J. L., Muwwakkil, B., Savoy, A., Williams, R., Whitehead, T. L., Wang, M. Q., & Naslund, M. J. (2015). Recruitment and participation of African American men in church-based health promotion workshops. *Journal of Community Health*, 40(6), 1300–1310.
- Schoenfeld, E. R., & Francis, L. E. (2015). Word on the street: Engaging local leaders in a dialogue about prostate cancer among African Americans. *American Journal of Men's Health*, 10(5), 377–388.
- Shavers, V., Underwood, W., & Moser, R. (2009). Race/ethnicity, risk perception, and receipt of prostate-specific antigen testing. *Journal of National Medical Association*, 101(7), 698–704.
- Shaw, E. K., Scott, J. G., & Ferrante, J. M. (2013). The influence of family ties on men's prostate cancer screening, biopsy, and treatment decisions. *American journal of men's health*, 7(6), 461–471.
- Smith, R. A., Cokkinides, V., Brooks, D., Saslow, D., Shah, M., & Brawley, O. W. (2011). Cancer screening in the United States, 2011. *CA: A Cancer Journal for Clinicians*, 61(1), 8–30.
- Spain, P., Carpenter, W., & Talcott, J. (2008). Perceived family history risk and symptomatic diagnosis of prostate cancer: the North Carolina prostate cancer outcomes study. *Cancer*, 113(8), 2180–2187.
- Sutkowi-Hemstreet, A. (2015). Adult patient's perspectives on the benefits and harms of overused screening tests: A qualitative study. *J Gen Internal Medicine*, 30(11), 1618–1626.
- Teo, C. H., Ng, C. J., Booth, A., & White, A. (2016). Barriers and facilitators to health screening in men: a systematic review. *Social Science & Medicine*, 165, 168–176.
- Van Bogaert, D., Hawkins, R., Pingree, S., & Jarrard, D. (2012). The development of an eHealth tool suite for prostate cancer patients and their partners. *The Journal of Supportive Oncology*, 10(5), 202.
- Van den Bruel. (2015). People's willingness to accept overdiagnosis in cancer screening: population survey. *The British Medical Journal*, 350, 1–9.
- Wang, W. (2015). Interracial Marriage: Who Is 'Marrying Out'?. *Pew Research Center*, 19–40.
- Welch, H. G., & Albertsen, P. C. (2009). Prostate cancer diagnosis and treatment after the introduction of prostate-specific antigen screening: 1986–2005. *Journal of the National Cancer Institute*, 101(19), 1325–1329.
- Wolf, A. M., Wender, R. C., Etzioni, R. B., Thompson, I. M., D'Amico, A. V., Volk, R. J., . . . Smith, R. A. (2010). American Cancer Society guideline for the early detection of prostate cancer: Update 2010. *CA: A Cancer Journal for Clinicians*, 60(2), 70–98.
- Wray, R. J., McClure, S., Vijaykumar, S., Smith, C., Ivy, A., Jupka, K., & Hess, R. (2009). Changing the conversation about prostate cancer among African Americans: results of formative research. *Ethnicity & Health*, 14(1), 27–43.