


Reactions to Recommendations and Evidence About Prostate Cancer Screening Among White and Black Male Veterans

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Abstract

U.S. clinical guidelines recommend that prior to screening for prostate cancer with Prostate Specific Antigen (PSA), men should have an informed discussion about the potential benefits and harms of screening. Prostate cancer disproportionately affects Black men. To understand how White and Black men reacted to a draft educational pamphlet about the benefits and harms of PSA screening, we conducted race-specific focus groups at a midwestern VA medical center in 2013 and 2015. White and Black men who had been previously screened reviewed the draft pamphlet using a semistructured focus group facilitator guide. Forty-four men, ages 55–81, participated in four White and two Black focus groups. Three universal themes were: low baseline familiarity with prostate cancer, surprise and resistance to the recommendations not to test routinely, and negative emotions in response to ambiguity. Discussions of benefits and harms of screening, as well as intentions for exercising personal agency in prevention and screening, diverged between White and Black focus groups. Discussion in White groups highlighted the potential benefits of screening, minimized the harms, and emphasized personal choice in screening decisions. Participants in Black groups devoted almost no discussion to benefits, considered harms significant, and emphasized personal and collective responsibility for preventing cancer through diet, exercise, and alternative medicine. Discussion in Black groups also included the role of racism and discrimination in healthcare and medical research. These findings contribute to our understanding of how men's varied perspectives and life experiences affect their responses to prostate cancer screening information.

Keywords

prostatic neoplasms, early detection of cancer, health communication, veterans, focus groups

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Screening for prostate cancer with Prostate Specific Antigen (PSA) may reduce prostate cancer-specific mortality by a small amount (Fenton et al., 2018). Yet PSA testing is complicated by a high rate of false positive tests, overdiagnosis of indolent disease, and potential complications from downstream testing and treatment (Fenton et al., 2018). For this reason, the United States Preventive Services Task Force (USPSTF), Veterans Health Administration (VA), American Urologic Association, and American Cancer Society (ACS) all recommend that screening should only be considered in men with at least a 10-year life expectancy, and that men ages 55–69 should not be screened for prostate cancer without an informed discussion about potential benefits and harms of screening

(Carter et al., 2018; National Center for Health Promotion and Disease Prevention, 2019; U. S. Preventive Services Task Force, 2018; Wolf et al., 2010).

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Though prostate cancer is the most common cancer among all U.S. men, the incidence and mortality of prostate cancer remain significantly higher among Black men than White men in the United States (incidence 175.2 vs. 102.3 per 100,000; mortality 37.9 vs. 17.9 per 100,000 among Black and White men, respectively) (SEER Cancer Statistics Review, 1975–2017). Racial disparities in prostate cancer incidence and mortality stem from a combination of socioeconomic factors, including health-care access, and prostate cancer heritability, which does not necessarily correlate with self-identified race or ethnicity (Dess et al., 2019; Rebbeck et al., 2006; Smith et al., 2017). Informed screening discussions should take into account the balance of screening benefits and harms, which may be influenced by factors associated with racial group membership, including incidence and mortality, systemic disparities, and racism. The ACS recommends initiating this informed discussion at a younger age for Black men or those with a family history of prostate cancer (Wolf et al., 2010), and the USPSTF recommends informing Black men about their increased risk for prostate cancer incidence and mortality, in order to facilitate an informed, personal decision about screening (U.S. Preventive Services Task Force, 2018).

Shared decision-making (SDM) is commonly recommended for complex screening decisions, yet many clinicians feel uncomfortable discussing clinical uncertainty (Zeuner et al., 2015), fail to mention potential harms of screening (Bhuyan et al., 2017), or screen without discussing PSA at all (Han et al., 2013). Educational materials such as patient decision aids can help facilitate SDM conversations, and may even reduce health inequalities when the materials are adapted to the needs of a disadvantaged group (Durand et al., 2014). On the other hand, a recent study found that White and Black male Veterans responded differently to a prostate cancer treatment decision aid, and called for additional research to understand the “efficacy, relevance, and receptivity of prostate cancer” decision aids for Black men (Langford et al., 2020). Little is known about how people react cognitively and emotionally to the factual information presented in decision aids (Myers, 2005).

Qualitative research can help us understand how and why Black and White men may respond differently to screening tools and educational materials. Racial comparisons in health services research must be approached thoughtfully, however. Group-difference studies can perpetuate models of cultural deviance from the (White) mainstream (Hardeman, 2020) or can create a false equivalence that ignores the way outcomes are shaped by adaptations to external forces (Whitfield et al., 2008). Within-group study designs have their own limitations. For example, Ford and colleagues (Ford et al., 2006) conducted focus groups with Black men in Detroit to

understand factors that influence prostate cancer screening behavioral intention, using the Preventive Health Model (PHM) (Myers et al., 1999) as a conceptual framework. They acknowledged that the focus groups responses may or may not have been unique to Black men in that health system, and could not anticipate potential differences with White or Latino men. Including Black and White men in the same study can allow researchers to understand potential differences in perceptions of a clinical intervention. Among prior qualitative studies about prostate cancer screening that included Black and White participants, there were no racial differences in baseline knowledge about prostate cancer and screening (Winterich, Grzywacz, et al., 2009), but significant differences in the perception of race as a risk factor for prostate cancer (McFall et al., 2006). Awareness of Black men's elevated risk for prostate cancer has previously been associated with receptivity to screening among Black men (Myers et al., 1994). Differences in the perception of risk may impact the way Black and White men respond to recommendations not to routinely screen with PSA, and to related evidence about the potential downstream harms of screening or overdiagnosis, which have not been addressed in existing qualitative studies (James et al., 2017).

In 2013, the VA requested our collaboration in designing patient educational materials to communicate changing prostate cancer screening guidelines to Veterans. The VA is a national integrated healthcare system serving approximately 9 million enrolled Veterans, 15.5% of whom are Black (VA Office of Health Equity, 2016). In the current study, we tested a draft patient educational pamphlet with separate focus groups of White or Black male Veterans. Our aim was to understand how White and Black men previously screened with PSA responded to the draft pamphlet. In particular, we were interested in whether reviewing the evidence related to prostate cancer screening benefits and harms would be associated with expressed intention to screen.

Methods

Design and Participants

In earlier work, we produced a draft patient educational pamphlet for the VA about prostate cancer screening, titled “The PSA Test for Prostate Cancer Screening: Why some doctors no longer recommend testing.” The pamphlet was developed under the 2012 USPSTF guideline recommendation against routine screening (Moyer, 2012). That recommendation remains unchanged for men over age 70. However, for men age 55–69, guidance shifted in 2018 to a recommendation that screening decisions should be individualized, and screening should only be done after an

informed discussion of potential screening benefits and harms (U.S. Preventive Services Task Force, 2018). Though guidance has shifted, the evidence related to screening benefits and harms described in the pamphlet is substantively unchanged today (Chou et al., 2011; Fenton et al., 2018). Pamphlet content was informed by input from 2 VA provider focus groups and 26 individual patient interviews with male Veterans age 50–85, stratified by age, race, and history of prior elevated PSA test. These stratifying characteristics were selected based on the PHM (Myers et al., 1999), which posits that background factors (including demographics such as age and race, medical history, and prior screening behavior), interact with cognitive and psychological factors, as well as social and programmatic influence, to inform intention to screen and subsequent screening behaviors. We identified comparable perspectives, and a similar range of reactions to screening recommendations, across all subgroups (Partin et al., 2017) and for this reason we did not tailor the pamphlet content for subgroups. In the next phase of research, the draft pamphlet was presented to patient focus groups of male Veterans at the Minneapolis VA to gauge responses and reactions, which are presented in the current paper. Focus groups were used because they provide a forum to elicit and identify the range of individual reactions; the group dynamic can help explore and clarify perspectives (Morgan, 1996). This research was approved by the Minneapolis VA and University of Minnesota Institutional Review Boards.

The original study protocol called for designing the pamphlet with input from men across stratified age, race, and PSA subgroups, as above, then testing it in four unstratified patient focus groups that included men of different ages and races, in order to verify our findings that content did not need to be tailored to subgroups. However, the number of eligible Black men in our sampling frame was limited by Minneapolis VA demographics and was further restricted by excluding those men who had recently participated in individual interviews. The first four focus groups recruited and conducted in July and August 2013 included only White men (and one man whose race was listed as “other” in the electronic medical record, and is grouped with the White men hereafter). Due to inadequate representation, the study PI then amended the study protocol and sought additional research funding to recruit and conduct two more focus groups with Black men; these were completed in November 2015. The decision to conduct Black-specific focus groups at that point was motivated by the goal of increasing representation of Black men’s views and informed by the principle that more homogenous groups have more open conversations. (Branscombe et al., 1999; McFall & Hamm, 2003) Prostate cancer screening evidence and guidance did not change between 2013 and 2015, though public awareness of recommendations not

to screen routinely likely increased over time. The number of focus groups conducted was decided *a priori* due to time constraints and resource availability and was not determined by data saturation. In qualitative research, data saturation has been defined as “the point in data collection and analysis when new information produces little or no change to the codebook” (Guest et al., 2006). Previous work has found that three to six focus groups are likely to identify 90% of themes on a topic (Guest et al., 2017) and including a saturation assessment is standard (Tong et al., 2007). To assess whether significant additional responses may have been missed by limiting the number of focus groups to these pre-determined numbers, we evaluated post-hoc data saturation.

Recruitment

Eligible participants were identified within the VA electronic medical record (EMR) using the following criteria: male sex, age 50–85, one or more outpatient visits at the Minneapolis VA Health Care System in the past year, and PSA test in the past 24 months. For the last two focus groups, only men whose race in the EMR was listed as Black or African American were considered eligible. Eligible participants were required to have a PSA test in the past 24 months because the pamphlet was specifically designed to address questions from men who had been previously screened. Men were excluded if they had a diagnosis of prostate cancer or dementia, were nursing home residents, non-English speakers, or did not have a complete address and phone number. The sampling frame of eligible men at the time of study initiation included approximately 10,850 non-Black men and 695 Black men. Due to a resource-intensive recruitment process and a relatively small number of participants needed, a random sample of 200 eligible men was selected for invitation to participate in the initial four focus groups. A second random sample of 100 eligible Black men was selected for invitation to the fifth and sixth focus groups.

Potential participants were notified of the study by mail and provided an opportunity to opt out; those who had not opted out were called by a study coordinator in random order and invited to join one of the planned focus groups. The target focus group size was 5–10; recruitment calls were discontinued once 8–10 men had agreed to participate in each focus group. A total of 102 outreach calls were made and 55 men were scheduled into focus groups. Men who agreed to be scheduled for a focus group were mailed a copy of the informed consent for review. Consents for participation and audio-recording were then reviewed in-person prior to the start of each focus group, and participants were provided an opportunity to ask questions about potential risks and benefits of

participation prior to signing. Participants were compensated \$40 for their time after participation.

Data Collection

All six focus groups were conducted by the same experienced facilitator, K.W., who is White, female, and has a doctorate in education, using a semistructured facilitator guide (Appendix A). As qualitative researchers, we used critical self-consciousness to observe how investigator identities (in this case mainly female, White, and highly educated) would influence power dynamics between study staff and study participants. Specifically, we considered the potential effects of having investigators observe the focus groups, and discussed whether identifying investigators as designers of the educational pamphlet might inhibit critical conversation. In the end, two to three study team members (a mix of investigators and research coordinators) observed each focus group to assist with logistics (serving coffee, collecting consent forms, etc.) and to take notes. One investigator was identified as a physician, to assist with answering any medical questions that arose, but the other investigators were only identified as study team members, to minimize the power differential and encourage open conversation. Focus groups took place at the Minneapolis VA medical center. During each focus group, participants were invited to share their familiarity or perspectives on prostate cancer screening, and were then guided, page by page, through a review and discussion of a 10-page draft pamphlet summarizing evidence and recommendations about PSA screening (Appendix B). Focus groups were audio-recorded, then transcribed by professional transcription services.

Analysis

Transcriptions were de-identified and imported into NVivo (2015, version 11) software for data management and analysis. Coders were not blinded to participant race, as this was not possible due to multiple references to race in the focus group transcripts. Focus group transcripts were analyzed using thematic analysis (Clarke et al., 2015). Two investigators, E.D and M.P., derived a draft codebook by applying In Vivo and Initial Coding methods to the focus group transcripts for first cycle coding (Saldaña, 2015). First cycle coding relied on both deductive codes, based on prior work (Partin et al., 2017) and theory from the PHM (Myers, 2005), as well as inductive, content-driven codes.

The PHM provides a relevant framework for analysis because it is rooted in several classic health behavior models, including the Health Belief Model (Strecher & Rosenstock, 1997), the Theory of Reasoned Action (Fishbein & Ajzen, 1980), and Social Cognitive Theory

(Bandura, 1986), and has been validated across both Black and White populations for prostate cancer screening (Ritvo et al., 2008; Tiro et al., 2005) and other preventive health behaviors (Vernon et al., 1997). According to the PHM, background factors, which include demographics, medical history, and past screening behavior, interact with cognitive and psychological representations of screening and disease, as well as social support and the influence of family members or health professionals, to affect behavioral intentions and ultimately health behaviors. Programmatic factors within the health system may also facilitate intention and screening. Cognitive representations about disease include knowledge and awareness about the etiology of disease, perceived susceptibility, severity and duration of disease, and effectiveness of screening. Psychological or affective representations include the emotional reactions to these things. A person considering screening will compare the cognitive and affective representations associated with behavioral alternatives (i.e., screening or not screening) using a process of preference clarification. After the person has engaged in their chosen behavior, an outcome appraisal allows them to compare the anticipated consequences with their actual experience—this appraisal then feeds back into future decisions. (Myers, 2003, 2005)

All focus group transcripts were reviewed by two investigators, and the investigators met after each was reviewed to compare coding, define or revise codes, and update the codebook. After all focus group transcripts had been reviewed twice (once by each investigator), the resulting revised codebook was then applied to each focus group transcript by one investigator. The other investigator performed a 10% coding check. The two investigators met to discuss agreement or disagreement in coding following application of the codebook to each focus group transcript, and final arbitrated coding decisions were then applied.

Themes were developed and refined by E.D. and M.P. using thematic analysis (Clarke et al., 2015). During the coding process, emerging concepts were noted by investigators. Following complete coding of all six focus groups, NVivo software was used to tabulate code frequencies and patterns across and between racial groups. Some themes were common to all focus groups, whereas others emerged only in White or only in Black focus groups. Qualitative analysis was conducted between 2016 and 2018. Post-hoc data saturation was assessed by examining the number and percent of codes included in our final codebook that were identified after each focus group was coded. Because some new codes arose only in the focus groups with Black men, which were numbered five and six out of six, we also evaluated the proportion of codes that were found only in White focus groups (focus groups one to four).

Results

Six 90-minute focus groups were conducted with 5–9 participants each, for a total of 44 participants. Across four focus groups with White men, 32 participants ranged in age from 55 to 81, with mean age 68.5 years. In the two focus groups with Black men, 12 participants ranged in age from 55 to 80, with mean age 64.9 years. Major themes are summarized below with supporting quotes. Themes are grouped under the five sets of factors that predict screening behavior in the Preventive Health Model (Myers et al., 1999): (1) Background factors, (2) Cognitive and Psychological Representations, (3) Social Support and Influence, (4) Programmatic Factors, and (5) Behavioral Intentions.

- (1) **Background factors.** Black focus group participants addressed the background factors race and age, and described prior negative experiences with prostate cancer screening.

Experiences and Suspicion of Discrimination. Only Black participants brought up the possibility that lack of good screening tools and recommendations not to routinely screen for prostate cancer were motivated by racism or ageism.

“I don’t want to play the race card or anything like that, but I wonder if this disease, if it attacked White people as much as it attacks Black people, would they spend more money finding out more about it.” (Black participant)

“If you’re over 70, you’re just disregarded. . . Just drug out with the trash.” (Black participant)

Black men referenced both historical and personal experiences of discrimination. The following exchange between two Black participants (P1 and P2) and the White focus group facilitator (F) illustrates how perspectives on medical research can be influenced by historical experiences:

P1: “Pertaining to the African-Americans, would there be anything similar to the Tuskegee Experiment?”

F: In today’s world hopefully not with certainly the protection for human subjects, but obviously there are always risks in research and studies.

P1: I love the idea of today’s world.

P2: Let’s say they’re more honest. We hope they’re more honest.

P1: Hope springs eternal.”

One man reported a personal negative experience with dismissive, condescending physician communication around PSA testing.

“I mean it was, to me, it felt like oh, you’ll be comfortable, don’t worry about it, don’t worry, don’t stress yourself about it. This right here will fix your problem. And if you have any problems, come back and we’ll take care of it. That’s how the doctors talked to me.” (Black participant)

(2) Cognitive and Psychological Representations.

Men in all focus groups reported psychological or affective responses to screening recommendations that reflected their interest in knowing diagnostic status and worry about the recommendations.

Surprise and Resistance to Recommendations. Across all focus groups, men were surprised by or resistant to the recommendation not to routinely screen for prostate cancer with PSA testing and the evidence supporting it. Men requested an alternative test if PSA testing was not offered.

“I just find it hard to believe that doctors don’t recommend testing. . . just because they want to test you for everything.” (White participant)

“My reaction is I think somebody should find a different way to test for prostate cancer. Evidently, this test right here is not all it’s cracked up to be. So, there has to be another way to test for it besides this particular antigen.” (Black participant)

Negative Emotions. Men responded to recommendations not to routinely screen for prostate cancer with negative emotions, including fear, irritation, and confusion. Warnings about potential harms of screening and symptoms associated with prostate cancer were perceived as frightening. An effort to review benefits and harms, as opposed to the more common overt endorsement of screening, was seen as ambiguous and frustrating.

“Well you know, it’s a fear thing. That’s what I don’t like about this. It’s not giving me options, it’s trying to scare the shit out of me.” (White participant)

“It’s crazy. . . This is kind of stressful to hear this stuff.” (Black participant)

“This one scares me. It furthers scares me out of doing a biopsy.” (White participant)

“Well, how do you know which one’s right? You know you could have five doctors, and . . . four of them disagree. So. . . how do you feel safe?” (Black participant)

Participants in White focus groups expressed a strong belief in the salience and coherence of screening (i.e., the belief that screening was important, effective, and convenient). Previous reassuring experiences with screening contributed to a positive outcome appraisal.

Focus on Benefits of PSA Testing. Across all 6 focus groups, there were 64 references to various benefits of PSA testing—all but one were in White focus groups. Benefits included ease of testing, peace of mind achieved from negative results, and the knowledge gained from testing, even if the results were unlikely to change clinical outcomes.

“I thought it was a pretty simple blood test” (White participant)

“As long as they come back and say ‘that a boy,’ I feel pretty good about it” (White participant)

“But, at least I’m going to have information. I’m not gonna deny myself the opportunity to get information.” (White participant)

“You say you’ve got stage IV prostate cancer. You’ve got about three months to live. Now would you have liked to know this before? Yes you would. Get your PSA checked, regardless.” (White participant)

Control over Potential Harms. In White focus groups only, participants were dismissive of the potential harms of PSA testing. They described harms as no different from other medical tests and procedures, and stated that most of the risk came from downstream testing and treatment. They felt confident that there would be opportunities to make informed decisions prior to proceeding to any risky downstream procedures.

“Anytime you have an invasive something in your body, all these things could happen.” (White participant)

“If you have a PSA test and it suggests that there may be an issue or a problem, then you’d have to go farther. But the initial PSA test is really kind of innocuous I think.” (White participant)

“I mean this may lead to these things, but I think what it would lead to is discussions with your doctor.” (White participant)

In contrast, participants in Black focus groups responded to pamphlet material about potential downstream harms of screening by discussing concerns about screening-related consequences.

Deterred by Harms. Downplaying or dismissing downstream harms of screening did not come up in Black focus groups. Black men discussed a range of harms mentioned in the pamphlet, from the anxiety associated with a positive test to specific complications of downstream tests or treatments.

“The one thing that bothers me is that you can’t put your finger on anxiety. And once you tell a person they have something, they get suspicious, oh, I’m going to die.” (Black participant)

“Okay, well, what kills them quicker? The test or the treatment that follows the test or the prostate cancer?” (Black participant)

“You can have a perfectly good prostate and then for some reason you go have the test done, and then you end up not. . . being able to free willy anymore. That’s no good.” (Black participant)

They also discussed potential harms not mentioned in the pamphlet, including the concept of “cutting” and spread following biopsy or treatment (a lay model of cancer).

“Some other information regarding cancer. You see that the body has a way of enveloping any foreign ailments. And see the cancer once they start to operate they release the fluids that surround cancer that the body has protected you with. Actually the cure is worse than the ailment.” (Black participant)

“Once you open up the prostate and let all those cancer cells get out of there it could go anywhere.” (Black participant)

(3) Social Support and Influence and (4) Programmatic Factors. In describing baseline knowledge of prostate cancer and PSA testing, men in all focus groups reported that family and peers played a minor role and that the health care system facilitated screening without enabling informed decision making.

Low Baseline Familiarity with Prostate Cancer and PSA Testing. Across all focus groups, there were men who expressed little knowledge of PSA testing or prostate cancer; some confused or conflated PSA testing with other screening tests such as colonoscopy. Men mentioned that they had never discussed prostate cancer with providers or peers. Testing by physicians was described as automatic with no opportunity for shared decision making or declining the test.

“Guys don’t talk about it usually. I mean this is the most I’ve ever heard about anything. I’ve got five brothers, we don’t talk about our prostate. We just don’t. And sisters, of course not. You know, we’re not gonna . . . we’re not gonna divulge that information.” (White participant)

“I know I’ve had it done, but there’s never been much of an explanation.” (White participant)

“I don’t know anything about this prostate cancer, so that’s why I’m here” (Black participant)

- (5) **Behavioral Intentions.** The intention to engage in prostate cancer screening or to seek alternative preventive health behaviors came up in all focus groups.

Personal Responsibility and Choice. Among White men, the conversation questioned the authority or expertise of physicians to make recommendations about screening, and participants emphasized that the decision to screen should ultimately be an individual one.

“. . . if you got a 30 year-old doctor, what is he gonna to know? He’s only gonna know what you tell him. Or whatever he reads.” (White participant)

“They got different things going on, so you don’t have to rush to believe your doctor, and believe everybody. Make up your own mind. Do your own research. Read, talk to people.” (White participant)

“I’d like the information to be able to discuss it with your provider, and come to a conclusion. Whether you would do anything or not, is your decision.” (White participant)

“If I wanted it, I’d say, ‘I would like to have it done even though you don’t recommend it.’” (White participant)

Black men, but not White men, discussed extensively what they could do to stay healthy and prevent prostate cancer using self-care solutions. Men in the Black focus groups wondered whether diet may contribute to elevated prostate cancer risk. Some suggested alternative medicine or herbal supplements.

“As far as African-Americans, that’s the term used, having prostate cancer and have a larger number than the Caucasian or whatever, I think there’s more issues involved. I mean, you know, bad health overall, stress. I mean, many things contribute to diet. So, I mean, if these things are all compounded. . . .” (Black participant)

“So, really, the best thing for us to do is to try to stay healthy, exercise and eat properly.” (Black participant)

“What you can do [to stay healthy], such as, I think I heard that boron was good, selenium was good.” (Black participant)

Data Saturation

The final codebook included 152 individual codes: 10 top-codes, 43 Sub-code 1, 71 Sub-code 2, and 28 Sub-code 3. Sixty-five percent of the 152 final codes were identified in the first focus group, with 88% identified by focus group four and 97% by focus group five. Of the 135 codes identified in the first four (White) focus groups, 96% were identified by focus group three. Based on these findings we are reasonably certain that conducting additional focus

groups would not have resulted in substantially more or different responses.

Discussion

In this qualitative study, White and Black men reviewed an educational pamphlet that presented evidence about prostate cancer screening benefits and harms and explained why some physicians recommended against routine PSA testing. Both White and Black male focus group participants expressed negative affective reactions to screening recommendations, including surprise, resistance, fear, irritation, and confusion, as well as low baseline familiarity with prostate cancer associated with limited family or peer influence or past programmatic support. However, discussions of background factors such as age and race, cognitive and psychological representations about the salience, coherence, and potential consequences of screening, as well as intentions for exercising personal agency in prevention and screening, diverged between White and Black focus groups. We review those differences below.

Participants in the four White focus groups highlighted the salience and coherence of screening, minimized the harms, and emphasized personal choice in screening decisions. Previous research with the Preventive Health Model (PHM) has found that belief in the salience and coherence of screening (i.e., the belief that screening is important, effective, and convenient), is closely associated with intention to screen among both Black and White men (Myers et al., 1994, 1996; Vernon et al., 1997). In our study, reviewing scientific evidence about the relatively low screening efficacy and potential harms of screening did little to alter this pro-screening stance among participants in the White focus groups. Instead, White focus group participants referred to their prior positive experiences with screening. Men reported that they had previously experienced relief and reassurance from a normal test result. They felt confident that there would be opportunities for informed conversations to avoid a cascade of downstream consequences. Outcome appraisals from past experiences outweighed anticipated or reported potential consequences of screening during the process of preference clarification (Myers, 2003, 2005). This finding is consistent with previous work demonstrating that informed discussions may have less impact on screening intentions than underlying beliefs and prior experiences (Farrell, 2002; Riikonen et al., 2019).

In contrast to the White male focus groups, participants in the Black male focus groups responded to the educational pamphlet by devoting almost no discussion to potential benefits of PSA testing. Despite their elevated risk for prostate cancer, Black men were deterred by the potential harms of PSA screening described in our

educational pamphlet, and added additional harms to the conversation. Whereas previous work has found that awareness of Black men's elevated risk for prostate cancer was associated with receptivity to screening (Myers et al., 1994), another study showed that few Black men perceived their personal risk as being high (Myers et al., 1996). Black men also brought up experiences of discrimination in healthcare and racism in scientific research. These prior experiences with discrimination may have contributed to outcome appraisals that swayed men's assessments of preventive health behavioral alternatives (Myers, 2003, 2005). Critical Race Theory teaches us to consider how the racialized experiences of Black people may contribute to health beliefs and behaviors (Ford & Airhihenbuwa, 2010a, 2010b). Previous studies have reported that Black men identify racism, acting through intergenerational oppression, poverty and diet, as a root cause of prostate cancer disparities (Hunter et al., 2015). Participants in the Black focus groups emphasized personal and collective responsibility for cancer prevention outside of the healthcare system, through diet, exercise, and alternative medicines. This response is consistent with prior findings that Black men see prostate cancer as a collective threat requiring a coordinated approach for community prevention and protection (McFall et al., 2006). Previous work has reported that Black men are more likely to consider prostate cancer screening with digital rectal exam (DRE) as an affront to masculinity, compared to White men (Winterich, Quandt, et al., 2009). The role of masculinities, or gender identity, was not a prominent part of our focus groups discussions, likely because our study focused on PSA testing, rather than DRE.

The differences between focus groups comprising White men and Black men surprised us because they contrasted with our findings from individual interviews in an earlier part of this research. In those interviews, we encountered comparable perspectives, and a similar range of reactions to screening recommendations, across racial groups (Partin et al., 2017). This apparent discrepancy may be attributable to a more significant race-of-interviewer effect in the one-on-one interviews that derives, in part, from social desirability to avoid tension during an interview (Bobo & Fox, 2003). Participants in race-specific focus groups may feel more comfortable acknowledging the role of prejudice than individual interviewees—consistent with a general principle that focus groups with increased homogeneity have more open conversations (Branscombe et al., 1999; McFall & Hamm, 2003). Non-Black clinicians should be aware that racial dynamics can influence their one-on-one conversations with Black patients.

Many non-Black primary care providers may be hesitant to engage in discussions of race or racism with Black or other minority patients. However, our findings are consistent with prior studies that found that experiences of

racism inform Black patients' perspectives on healthcare and intentions related to screening and treatment (Hunter et al., 2015). Successful health communication relies on understanding and addressing patients' perspectives, even when those are uncomfortable for providers to confront. The counseling literature calls on counselors in multicultural environments to recognize their own assumptions, values, beliefs, biases and privilege in order to conduct culturally competent counseling (Ratts et al., 2016). Several prominent medical journals have recently published commentaries calling for clinicians to begin more explicitly addressing racism in health education and patient communication (Acosta & Ackerman-Barger, 2017; Carroll, 2020; Hardeman et al., 2016). Future work should elicit patient perceptions and reactions to explicitly addressing racism in the context of cancer screening and treatment decision conversations.

Our work has several strengths: few prior qualitative studies have included and compared responses from both White and Black men—ours is the first to do so since the 2012 U.S. Preventive Services Task Force guidelines were released (James et al., 2017). We tested a pamphlet that included information about both benefits and harms of prostate cancer screening; harms are often omitted from cancer screening research and guidelines (Caverly et al., 2016). Our draft educational pamphlet used recommended techniques to quantify and visually communicate the absolute risks and benefits of screening (Trevena et al., 2013). As men reviewed the pamphlet, we were able to assess their cognitive and affective responses to the decision-making situation, which have long been overlooked in the development of factual decision aids (Myers, 2005).

Our findings are tempered by some limitations: the views of White and Black male Veterans in the upper Midwest may differ from other parts of the United States and non-Veterans. All of the men in this study had been previously screened with PSA, which may influence their opinion of the test. The White and Black focus groups were also conducted several years apart due to resource limitations, leading to the possibility that secular trends could cause the differences in reactions between groups. Contemporary events or contextual factors present during the data collection periods may have affected the focus group discussions. However, there were no significant changes to prostate cancer screening guidelines during this interval, and all focus groups were conducted by the same experienced facilitator. The use of only a female White focus group facilitator is a potential limitation, however. We don't know how responses may have differed with a male or Black facilitator, though we note that participation was robust among both White and Black focus groups. Greater racial diversity among our research team in general would likely have provided additional

perspectives in the conduct and analysis of this study. Since completing this study, our research group has developed and engaged with a diverse research advisory panel composed of patients who represent the communities we study. We suggest that future work in this field build on similar partnerships, and consider the use of a critical racial analytical lens in study design, conduct, and analysis. We did not consider factors such as age, class, or education level in our analysis. Prior studies have found that Veterans who use VA care do not experience the same degree of difference in healthcare access and outcomes as patients in other health systems (Riviere et al., 2020). Focus group participants ranged in age from 55 to 81, including some men over age 70, an age group for which most guidelines continue to recommend against routine screening (Carter et al., 2018; National Center for Health Promotion and Disease Prevention, 2019; U. S. Preventive Services Task Force, 2018). Due to the mixed age-group format we are unable to differentiate responses by age. Now that most guidelines incorporate age and life expectancy into their recommendation statements (e.g., men ages 55–69 vs. men 70 years and older), future work should evaluate age- and life expectancy-specific responses to evidence and screening recommendations. The pamphlet presented to the focus groups in this study was designed in response to earlier guidelines that advised against routine PSA testing for all men. However, men's responses to evidence of benefits and harms of PSA testing, which has not changed substantially, remain relevant in light of newer guidance to have an informed discussion with patients.

Conclusions

Participants in White and Black focus groups reacted differently to evidence about benefits and harms of PSA screening, in part due to personal and historical experiences of discrimination in healthcare. These findings contribute to the body of knowledge about how men's varied perspectives and life experiences affect their responses to prostate cancer screening information.

Authors' Note

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Supplemental Material

Supplemental material for this article is available online.

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