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Barriers to Planning and Conducting a Screening: Prostate Cancer

GRAHAM J. McDOUGALL JR, PhD, RN, FAAN [Associate professor], MARY LOUISE ADAMS, PhD, RN [Clinical associate professor], and WAYNE F. VOELMECK, MSN, RN [Doctoral candidate]

University of Texas at Austin, School of Nursing, Austin, Texas

Abstract

African American men participated in a screening initiative and completed the 22-item Barriers to Prostate Cancer Screening Checklist. Forty-three men received a digital rectal exam (DRE) and prostate specific antigen (PSA) laboratory test. The age of the males was $M = 56.4$ (range = 45–76) years; 47% were compliant with the American Cancer Society annual screening guidelines for high-risk individuals. Nineteen men from the screened group completed a 22-item Response to Barriers Checklist. The barrier ranked a “big problem” for not getting a prostate exam, and the highest by 32% ($n = 6$) of the sample was “Too many things going on in their lives.” The lowest ranked problem by 100% of the participants was “Takes too long to get an appointment.” Two individuals reported taking the over-the-counter supplement, saw palmetto. It is important that when planning a health screening in the community, both barriers and advantages be evaluated during the planning and before the implementation phase of the project.

Malignant neoplasms from all cancers are the second leading cause of death after heart disease in all minority male groups including African, Hispanic, Asian/Pacific Islander, and American Indian/Alaskan Natives.¹ However, prostate cancer is a particular threat to African American men because they have higher rates of disease at 272.1 per 100,000 men compared with 164.3 for white men.² Study findings indicate that early detection and screening may save lives; demographic, racial, and ethnic disparities influence cancer-specific survival and relative risks of prostate cancer death for the 6 major racial and ethnic groups.^{3,4} For African Americans, the incidence is 34% higher than for Caucasian men, and the mortality rate is 123% higher for African Americans than for whites. Health promotion researchers interested in breast cancer screening have focused on barriers to screening as a modifiable risk factor.^{5,6}

PROGRAMS AND BARRIERS TO SCREENING

To reduce the disparities in prostate cancer survival for African American men, there is a great need to increase the men’s participation in screening programs. Yet not enough is known about why African American men do not seek screening or participate in screening programs. Factors such as income, knowledge of risk, and level of understanding the etiology and symptoms associated with prostate cancer influenced whether an individual male was screened for the disease.^{7–10} African American men identified 3 barriers before participating in screening: “Being embarrassed,” “No transportation,” and “Refused to go.”

One month following the screening, the barriers identified during telephone follow-up were “Put it off,” “Doctor hours not convenient,” “Didn’t know kind of doctor,” “Didn’t know where to go,” and “Refused to go.”^{11,12} In another study, African American men identified 2 barriers: “Making and planning of an appointment” and “Reminders for screening.”¹³ Nevertheless, those African American men who participated in educational interventions received greater health benefits through early prevention and detection.^{14–16} This study reports the outcomes of a health fair that specifically targeted African American males for prostate cancer and the perceived barriers to screening identified by male participants.

METHODS

Sample and Setting

In collaboration with the American Cancer Society (ACS)—Greater Austin Network and a local hospital, a health fair targeting the African American community was planned and implemented to correspond with Father’s Day. The event took place at a neighborhood health center and included a blues festival. The hospital funded the clinical services, such as the laboratory costs for the prostate specific antigen (PSA) screening. Physicians and nurses volunteered their professional services to assist with clinical protocols. The ACS provided additional resources related to the marketing and publicity of the events. In addition, ACS provided the educational component, a support group called “Let’s Talk about It.” This group provides culturally relevant health information specifically designed for African American men. The clinical component of the health fair took place in a local health clinic and the support group took place in a neighboring community center. Both facilities were housed in the same community health complex.

Forty-nine African American men participated in a screening initiative. Of those men, 43 had both a digital rectal exam (DRE) and a PSA laboratory test. Six individuals refused the DRE. In addition to the screening, 19 men completed the 22-item Prostate Cancer Barriers Checklist (PCBC). All participants were at least 45 years of age ($M = 57.39$, $SD = 9.5$). Four (21%) individuals completed high school, 7 (37%) had some college, and 7 (37%) completed college or higher education (Table 1). Participants’ ages ranged from 45–76 ($M = 56.44$, $SD = 9.0$).

Data Collection and Measurements

Approval to administer the questionnaires was received from the Departmental Review Committee at the School of Nursing and the Institutional Review Board of the University of Texas at Austin. A table was set up outside the room where the support group took place. Graduate public health nursing students (all men) participated by providing information and soliciting interest in the questionnaire completion. The questionnaires were distributed if an individual expressed interest and was willing to complete the questionnaires either before or after they attended the support group or educational session. If requested, the male public health nursing graduate students assisted participants with completing the questionnaires.

A demographic profile and the PCBC were administered at the same time. The PCBC was adopted for prostate cancer from the original version of the checklist developed to enlist

information regarding barriers to mammography screening.⁵ The checklist was administered to the African American men (see sidebar). The PCBC is a 23-item inventory of perceived barriers with a range of scores from 23 to 69, with higher scores indicating more barriers. Participants choose “Big Problem” (3 points), “Less of a Problem” (2 points), or “No problem” 1 point for each perceived barrier.

RESULTS

Prostate Screening Results

Fifteen individuals received a DRE and 9 met the ACS guidelines for PSA screening. Sixteen indicated they had a primary health care provider, 9 belonged to a health maintenance organization, and 2 were taking saw palmetto, an herbal product used to relieve swelling of the prostate gland (Table 2). No prior screening was reported by 25% of the men, and less than 15% of the participants had a known family history. Six individuals received a presumptive diagnosis of benign prostatic hypertrophy (BPH). Forty-seven percent of the men were compliant with the ACS annual screening guidelines for high-risk individuals (Table 2).

Eleven males were followed because their PSA levels were ≥ 2.5 . One individual received a biopsy and was given a diagnosis of benign prostatic hypertrophy with prostatitis. Five individuals were normal. Four men were lost to follow-up; however, they received certified letters encouraging a visit to a physician. One person was diagnosed with cancer.

Prostate Cancer Barriers Checklist			
	Big Problem/Reason	Less of a Problem/Reason	No Problem/Reason
1. Cost of screening test (PSA)			
2. Location of x-ray office hard to get to			
3. Transportation to the office			
4. Taking time off from work			
5. Didn't know about getting a prostate test			
6. No one to stay with children or grandchildren			
7. Worry the blood test might find cancer			
8. Doctor/health provider hasn't said to do it			
9. Forget to make an appointment			
10. How old a man should be to have a prostate exam			
11. Don't think exam can save their life			
12. Digital rectal exam hurts too much			
13. Don't think they are likely to get prostate cancer			
14. Takes too long to get an appointment			
15. People who do exams don't treat them with respect			

Prostate Cancer Barriers Checklist			
	Big Problem/Reason	Less of a Problem/Reason	No Problem/Reason
16. Don't know how the prostate exam is done			
17. Too many other things going on in their lives			
18. Nobody in the family has had prostate cancer			
19. No desire to have a prostate exam/blood test			
20. Don't want to know if they have cancer			
21. No one they know talks about prostate check			
22. Blood tests aren't always accurate			
23. Other (please describe):			

Barriers Checklist Results

Using Mann-Whitney statistics, analyses were conducted with education as a grouping variable (college graduate [$n = 7$] or not a college graduate [$n = 11$]). Those men in the without college group ranked "Nobody in the family had prostate cancer" significantly higher than those with a college degree ($P = .023$). The barrier ranked a big problem and the highest by 32% ($n = 6$) of the sample as a problem or reason for not getting a prostate exam was "Too many things going on in their lives." The four problems that tied in second place by 21% ($n = 4$) were "Worry the blood test might find cancer," "Don't think I will get prostate cancer," "Don't know how the prostate exam is done," and "No desire to have a prostate exam/blood test." The lowest ranked problem by 100% ($n = 19$) of the African American participants was "Takes too long to get an appointment."

DISCUSSION AND RECOMMENDATIONS

Prostate cancer is the second leading cause of cancer death in African American men, who have the highest rate of prostate cancer in the world, with a mortality rate more than double that of white American men. It is not clearly understood why more African American men are not screened. Social and personal factors such as income, knowledge of risk, and level of understanding symptoms may influence these men's decision to seek screening.⁷⁻¹⁰ Based on studies with African American women, the fear of finding cancer and cost of mammography were identified as the most important reasons for not having mammograms.⁵ The goal of the study was an adaptation of the PCBC based on gender from a mammography screening questionnaire to determine whether the perceived barriers of black men were similar or different than the concerns of black women.

In this group of black men, less than 25% were concerned with the majority of the identified barriers. Therefore, if they ranked most of the barriers as not a problem, the question becomes whether they are being screened. This health fair and blues festival required months of planning and involved multiple community organizations. The event planners wanted at least 200 participants screened. Therefore, the yield of forty-three men did not justify the effort and expense of the event. Clearly the target population was not reached.

For clinicians, this means we must do more outreach to teach and explain and make it as easy as possible to get exams. Although this study did not include “being embarrassed” as a choice, the findings related to education are supported in other large-scale studies. Perhaps based on what we have learned from the breast cancer literature, in which fear is the most prevalent reason for avoiding screening, we need something more than just an educational campaign. So, more community affairs that appeal to emotion or unrealistic fears need to be planned. In other words, we cannot assume that clinicians are adequately prepared to perform these exams. Clinicians must be fully trained on how to perform the DRE to minimize discomfort. Done properly, a DRE may be uncomfortable but should not hurt.

Self-Care and Use of Herbal Products

Two men indicated on the demographic profile that they were taking saw palmetto (*Serenoa repens*), an herbal product used to relieve swelling of the prostate gland.^{17–21} Minority elders often rely on over-the-counter and herbal remedies because they do not require a doctor’s appointment and their use is not dependent on whether an individual has health insurance. It is important the primary care physician be notified that someone is taking saw palmetto for symptom relief and swelling. Its mechanism of action is to shrink the prostate gland and thereby reduce the pressure on the ureter. No effect on serum prostate specific antigen has been noted.¹⁸ Clearly, older adults and their families need this type of information, which is often only available to health care professionals.

When planning community screening initiatives with diverse cultural groups, the identification of the target population is an important concern. The target or unit, is the individual, family, or community, to which a program intervention is directed. All such units within the area served by a program comprise its target population.²² Another issue to be addressed is the coordination of the services to be provided, so that all involved will provide these services in a culturally sensitive manner. For a program involving such an intimate issue with African American men, the need for the involvement of African American male physicians is a high priority and may promote a more successful outcome. In addition, our program was affiliated with a blues festival and a local blues musician who had recently been diagnosed with prostate cancer. Celebrity involvement in program development and implementation is known to be of benefit in the public relations arena.

More minority-targeted programs such as the American Cancer Society’s “Let’s Talk about It” support group are needed. While performing its primary function of support through the disease, this group also goes out to speak to other African Americans to explain the importance of screening. Future research needs to examine further how we can assist African Americans to overcome the barriers they describe. The community event provided a mechanism for free prostate screening and education. Community collaborations are important to further this cause as shown in the flyers of the numerous agencies that contributed to the success of this event.

Although this sample is small, the focus on a neglected population provides information for further exploration into the barriers perceived by African American men to prostate screening.

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Table 1

Demographics Profile of Sample (N = 19)

Age*
Mean (SD): 56.4 (9)
Range: 45–76
Education, ** n (%)
High school graduate: 4 (21%)
Some college: 7 (37%)
College graduate: 7 (37%)
Missing data: 1 (5%)

*
N = 16**
N = 19

Table 2

Health Characteristic of Sample (N = 19)

Primary designated health care provider
Yes: 14 (74%)
No: 5 (26%)
Insurance
Health maintenance organization: 9 (47%)
Private health insurance: 5 (26%)
Medicare: 1 (5%)
Other: 3 (16%)
Missing data: 1 (5%)
Digital rectal exam (DRE)
Yes: 15 (79%)
No: 4 (21%)
Number of months since last DRE
≤12 months: 9 (47%)
13–24 months: 2 (11%)
25–36 months: 1 (5%)
37–61 months: 2 (11%)
No DRE: 4 (21%)
Missing data: 1 (5%)
ACS Guidelines for PSA screening
Met: 9 (47%)
Not met: 9 (47%)
Missing data: 1 (5%)
Use of over-the-counter medications
Yes: 3 (16%)
No: 16 (84%)
Use of saw palmetto
Yes: 2 (11%)
No: 17 (89%)

Table 3

Prostate Cancer Barriers Checklist (N = 19)

Checklist Item	A Big Problem	Not a Big Problem
Too many other things going on in their lives	6 (32%)	12 (63%)
Worry the blood test might find cancer	5 (26%)	14 (74%)
Don't think they will get prostate cancer	4 (21%)	9 (47%)
Don't know how the prostate exam is done	4 (21%)	14 (74%)
No desire to have a prostate exam/blood test	4 (21%)	14 (74%)
Don't think exam can save their life	4 (21%)	15 (79%)
Digital rectal exam hurts too much	3 (16%)	11 (58%)
Nobody in the family has had prostate cancer	3 (16%)	13 (68%)
Cost of PSA test	3 (16%)	13 (68%)
How old should they be to have a prostate exam	3 (16%)	15 (79%)
Don't want to know if they have cancer	3 (16%)	15 (79%)
No one they know talks about prostate check	2 (10%)	13 (68%)
Didn't know about getting a prostate test	2 (10%)	14 (74%)
Forget to make an appointment	2 (10%)	14 (74%)
Blood tests aren't always accurate	1 (5%)	14 (74%)
Location of x-ray office hard to get to	1 (5%)	14 (74%)
People doing exams don't treat them respectfully	1 (5%)	16 (84%)
Doctor/HCP hasn't said to do it	1 (5%)	17 (90%)
Taking time off from work	0	14
Transportation to the office	0	16 (84%)
No one to stay with children	0	17 (90%)
Takes too long to get an appointment	0	19 (100%)

HCP = health care practitioner; PSA = prostate specific antigen. Items are ordered from those that the largest percentage of respondents indicated was a problem, to those the fewest respondents indicated was a big problem.