
Prostate Cancer Screening in a Low-Literacy Population: Does Informed Decision Making Occur?

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Introduction

Although prostate cancer is the most common non-skin-related cancer among American men, screening for prostate cancer remains controversial.¹⁻⁵ The US Preventive Services Task Force and several professional organizations recommend that physicians counsel their patients on the risks and benefits of prostate cancer screening so that patients may make an informed decision about testing.^{2,6} Experts suggest that such counseling include the uncertain value of screening, the possibility of false-positive and false-negative tests, and the potential need for additional testing.^{2,7}

Men with limited educational attainment or literacy skills have less knowledge about prostate cancer and may struggle with such complex decision making.⁸⁻¹⁰ Further, not all patients want to participate in decision making. In a national survey that included 2,765 men and women, 52% of respondents preferred to leave decisions to their physician.¹¹ Rates were even higher among men, African Americans, the elderly, and those with limited educational attainment. The purpose of this study was to examine the content of physician-patient discussions of prostate cancer screening and its relation with prostate-specific antigen (PSA) testing in an inner city clinic.

Methods

The study was conducted in the primary care clinic of Grady Memorial Hospital in downtown Atlanta, Georgia. The clinic primarily serves a lower-income, African American population. Care is provided by residents in the Emory University Internal Medicine Residency Training Program, working with faculty physicians from Emory University School of Medicine.

A total of 281 consecutive male patients, aged 45 to 70 years with no history of prostate cancer, were asked to

complete an interviewer-assisted questionnaire immediately after seeing their primary care physician for a routine follow-up appointment. Though such visits typically focus on management of chronic diseases, physicians are expected to address prevention and screening issues as well. The frequency and content of prostate cancer screening discussions were determined by the subjects' answers to a series of simple yes/no questions, including the following: *Did you and your doctor talk about prostate cancer today?* *Did you and your doctor talk about getting a blood test, called PSA, to check for prostate cancer today?* *Did you and your doctor talk about a rectal exam today, where the doctor feels your prostate with his or her finger?* Patients who reported talking about PSA testing also described the length, content, and completeness of that discussion. Subjects then completed the Rapid Estimate of Adult Literacy in Medicine (REALM),¹² the most widely used assessment of literacy in a healthcare setting.¹³ Following the interview, research staff performed a focused chart review to record physician documentation of the screening discussion and whether a PSA was ordered that day.

The study design and materials were approved by the Emory University Institutional Review Board and Grady Research Oversight Committee. All participants provided informed consent. Responses were summarized with descriptive statistics and frequency tables using SPSS version 12.0 (SPSS Inc, Chicago, Ill).

Results

Among 281 consecutive eligible patients, 250 (89.0%) agreed to participate; 249 of 250 charts were located and reviewed. Subjects' mean age was 56.5 years (SD 6.8), and 91% were African American. Their mean educational attainment was 10.9 years of schooling (range 3-19), but patients' literacy skills were low overall. On the REALM, 37.6% scored below a 4th-grade reading level, 18.4% scored in the 4th-6th grade level, 22.8% scored in the 8th-9th grade level, and 21.2% scored at a high school reading level.

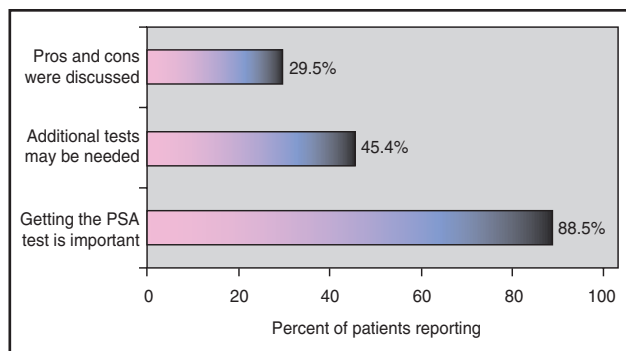
Approximately half of respondents (48.4%, n = 121) reported talking to their physician about prostate cancer that day. However, only 47 (38.8%) of 121 men recalled specifically discussing the digital rectal examination (DRE) and 59 (48.8%) the PSA test. Most patients who discussed PSA recalled that their physician said it was important to

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Patient-reported content of physician-patient discussion regarding PSA testing.

get the test (88.5), while few reported talking about the benefits and risks (29.5%) or that additional tests may be necessary (45.4%) (Figure). The average duration of PSA counseling was 2 to 5 minutes. All patients felt that enough time was spent, and 97.6% reported that all of their questions had been answered. Physicians infrequently documented discussion of prostate cancer screening (43 of 249 charts reviewed, or 17.3%). Details of the discussions' content were almost uniformly absent, necessitating reliance on patient report.

Among the 24 patients for whom a PSA test was ordered that day, only 13 (52.2%) reported talking about PSA, and only 9 (37.5%) were aware that the test was ordered.

Discussion

In this low-literacy patient population, physicians and patients engaged in little informed decision making about prostate cancer screening. Among the patients who talked to their physician about prostate cancer at that visit, fewer than half reported specific discussion about PSA or DRE. We believe the remaining encounters involved only a brief mention of prostate cancer, without any elaboration on screening options. When PSA was discussed, physician counseling frequently lacked information about the limitations of PSA testing. Ordering of the PSA test appeared somewhat independent of physician-patient dialogue about the test, with most patients not even knowing when a PSA was ordered. These results are consistent with prior research,¹⁴ which also noted that lack of time and appropriate risk communication skills remain important barriers to adequate physician counseling.^{2,3,15-17} Development of more innovative techniques to promote informed decision making is needed, particularly among underserved populations.^{15,18-25}

Although few of the described screening discussions could be considered complete, patients nonetheless appeared satisfied with their content. Nearly all patients noted that their questions were answered, and all thought enough time was spent discussing the issues. Previous

research has shown that some patients, particularly those with passive decision-making styles or lower levels of educational attainment, may be content to follow their physician's recommendation rather than engage in a complex discussion of potential risks and benefits.^{6,9-11,18,23} Future research should more directly examine not only the shared decision-making preferences of low-literacy patients, but also strategies to improve cancer screening knowledge and behavior in this high-risk population.⁸

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