Physicians' Attitudes About Shared Decision Making for Prostate Cancer Screening

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BACKGROUND AND OBJECTIVES: Shared decision making (SDM) for prostate cancer screening (PCS) is recommended for physicians and patients due to the uncertainty regarding the risks and benefits of screening.

METHODS: We assessed primary care physicians' attitudes and specific factors that may influence the SDM process, including level of training and practice setting. Participants included academic clinicians (n=16), interns/residents (n=84) and community clinicians (n=35). Physicians completed a 26-item survey that assessed attitudes about the SDM process for PCS.

RESULTS: More physicians endorsed SDM (47.4%) or the patient deciding (35.6%), while few physicians wanted to decide for their patients about screening. However, 54.8% endorsed an annual PSA as the standard of care. Most felt that decisions should be based on full disclosure of the risks and benefits of testing (93.3%), and few believed that the sensitivity and specificity of the PSA was adequate (36.6%). Across all physicians, lack of time, competing health demands, malpractice fears, and patient interest were all commonly cited as potential factors that influence the SDM process. Compared to academic clinicians and interns/residents, community clinicians were more likely to endorse annual screening, to be concerned about malpractice, and to agree that PSA sensitivity and specificity are acceptable.

CONCLUSIONS: Our findings demonstrate physician, patient and systemic factors regarding the PCS decision. Further effort is needed to overcome the barriers of engaging patients in SDM if we want to truly promote effective SDM for PCS, as espoused by national guidelines.

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Shared decision making (SDM) for prostate cancer screening (PCS) is recommended for physicians and patients due to the uncertainty associated with currently available screening tests. Differing findings from the Prostate, Lung, Colorectal, and Ovarian (PLCO) Cancer Screening Trial[1] and the European Randomized Study of Screening for Prostate Cancer (ERSPC)[2] highlight the fact that there is still insufficient evidence to recommend for or against PCS. While there is no national standard with regard to the SDM process, all medical organizations recommend that physicians should engage in SDM to help patients make an informed decision.[3-6] This involves discussions of the pros and cons of screening to improve patients' understanding of the potential risks and benefits.[3-11] However, uncertainties surrounding the risks and benefits associated with screening, the enthusiasm of the public about screening,[12] and several patient, physician, and systemic factors appear to reinforce the desire to screen, making the SDM process complex for both men and their doctors.[13,14]

Some of the patient factors that may affect SDM include language barriers, comorbidities, health literacy, and patient demand.[15-17] Physician factors include beliefs/attitudes about screening,[17-21] personal and professional experience with prostate cancer/screening,[20,22,23] and level of training.[24,25] Systemic factors include lack of reimbursement for screening discussions, malpractice risk,[7,26-28] lack of readily available patient decision aids, insufficient training in SDM strategies,[18,29] and

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practice setting.[25] All of these factors may add complexities to the SDM process.

There have only been a few studies that assessed level of training or practice setting as factors that may impact the SDM process,[24,25] therefore their role remains unclear. In preparation for our randomized trial of a PCS decision aid targeted to primary care patients,[30] we assessed attitudes and factors that influenced the SDM process for the primary care providers (PCPs) from the participating practices.

Methods

Participants

Three groups of PCPs were surveyed from two academic and one community-based practice: (1) academic clinicians, (2) interns/residents, and (3) community clinicians. Academic clinicians and interns/residents in the Divisions of General Internal Medicine at Georgetown University Hospital (GUH) and the Washington Hospital Center (WHC) completed the survey between May–July 2007. Community-based physicians in MedStar Physician Partners (MPP) completed the survey between September–December 2008. Medical students, non-primary care residents/interns, and nonphysician health care providers were excluded.

Procedures for Survey Administration

We approached participants according to the recommendations of the three site co-investigators. The division chiefs of internal medicine at GUH and WHC distributed the study descriptions, surveys, and consent forms to their respective PCPs. At GUH, interns/residents were recruited during six pre-clinic and noon conferences over 3 months. At WHC, interns/residents were recruited at clinic meetings on 5 consecutive days during 1 week. We mailed the MPP community clinicians an introductory letter, study description, consent form, survey, and a return self-addressed stamped envelope. This study was approved by the Georgetown/MedStar Oncology Institutional Review Board.

Survey Instrument

We developed a 26-item survey based on questions from recent physician surveys[25,26] that addressed: (1) physician characteristics, (2) physician attitudes about screening, and (3) physicians' report of the SDM process for PCS (survey available from corresponding author on request). Physicians were also asked whether they had experienced any adverse outcomes due to screening. Male physicians were asked whether they personally had had an elevated prostate specific antigen (PSA) or been diagnosed with prostate cancer. The survey required 5 to 10 minutes.

The demographic characteristics assessed included age, gender, race, ethnicity, level of training, and years since medical school graduation. The five attitude items assessed physicians' beliefs about the standard of care for screening asymptomatic men over 50, malpractice liability, sensitivity of the PSA, routine screening of high-risk men, and whether screening decisions should be based on the full disclosure of available information. These items had a 5-point response scale (Strongly Agree to Strongly Disagree).

Next, we asked physicians several questions about systemic, patient, and physician-related factors that may influence their discussions about PCS. Response categories were Never/Rarely, Sometimes, Often, and Almost Always. Next, physicians indicated their preferred SDM style. The five response choices ranged from physicians make the final decision to patients make the final decision and included a middle response of physicians and patients share the responsibility for deciding about screening.[31] For the analyses, we collapsed the 5-point scale into a 3-point scale given the limited numbers in the two extreme categories. Physicians were also asked whether a decision aid would assist them in discussions about the risks and benefits of screening before, during, or after an office visit (Definitely, Possibly, Possibly Not, or Definitely Not). Finally, physicians were asked how frequently patient race, family history, comorbid illnesses, patient preferences, and concern about malpractice influenced their screening practices: (Never/Rarely, Sometimes, Often, and Almost Always).

Data Analytic Strategy

Data were entered and analyzed using SPSS version 17.0. Descriptive statistics were examined to assess overall beliefs and differences by practice setting and level of training. There were no demographic differences between the GUH and WHC clinicians or interns/residents; therefore we collapsed these two groups across sites. Thus, the analyses describe our sample and compare GUH/WHC interns/residents, GUH/WHC academic clinicians, and MPP community clinicians regarding their attitudes and the SDM process for PCS.

Results

Descriptive Information

At GUH, 81 academic clinicians and interns/residents were approached, of which four were ineligible, resulting in 77 eligible participants. Of these, 54 (70.1%) completed and returned the surveys (GUH interns/residents=44 and academic clinicians=10). At WHC, 47 eligible participants were approached, of which 46 (97.9%) completed and returned the surveys (WHC interns/residents=40 and academic clinicians=six). At MPP, 50 community clinicians were approached, and 35 (70%) eligible surveys were completed and returned. The final sample included 16 academic clinicians, 35 community clinicians, and 84 interns/residents.

In Table 1, we present the demographic characteristics of the three groups. The mean ages were 29.9 years, 41.6 years and 48.6 years for interns/residents, academic clinicians, and community clinicians, respectively. The only significant demographic differences between the

Table 1: Physician Characteristics

Characteristics	Interns/ Residents (n=84)	Academic Clinicians (n=16)	Community Clinicians (n=35)	All Physicians (n=135)
Age, Mean (SD)*	29.9 (3.2)	41.6 (8.1)	48.6 (9.6)	36.1 (10.3)
Male, n (%)	42 (50.0)	6 (37.5)	16 (45.7)	64 (47.4)
Race, n (%)				
White	46 (54.8)	12 (75.0)	21 (60.0)	79 (58.5)
Black	8 (9.5)	1 (6.2)	4 (11.4)	13 (9.6)
Asian/Pacific Islander	22 (26.2)	3 (18.8)	8 (22.9)	33 (24.4)
Native American	1 (1.2)	0 (0.0)	0 (0.0)	1 (0.7)
Other	4 (4.8)	0 (0.0)	2 (5.7)	6 (4.4)
Missing	3 (3.6)	0 (0.0)	0 (0.0)	3 (2.2)
Ethnicity, n (%)				
Hispanic	4 (4.8)	0 (0.0)	2 (5.7)	6 (4.4)
Non-Hispanic	72 (85.7)	13 (81.3)	23 (65.7)	108 (80.0)
Missing	8 (9.5)	3 (18.8)	10 (28.6)	21 (15.6)
Level of training, n (%)				
Attending	—	16 (100.0)	35 (100.0)	51 (37.8)
Resident	45 (53.6)	—	—	45 (33.3)
Intern	39 (46.4)	—	—	39 (28.9)
Years since graduated from medical school (Mean [SD])*	3.1 (3.3)	15.4 (7.8)	22.0 (9.7)	9.5 (10.4)

* $P < .001$

groups included age and years since medical school graduation ($P<.001$). The community clinicians were significantly older than the academic clinicians and had completed medical school earlier (M=22 years ago versus M=15 years ago). No physicians reported adverse events, and only one male physician reported having had an elevated PSA.

Attitudes About the SDM Process

Most physicians preferred SDM (47.4%) or the patient deciding (35.6%), while few preferred making the final decision for their patients about being screened. In Table 2, we present the percentage of all physicians who Agreed/Strongly Agreed with five attitudes about the SDM process and PCS. While a majority of all physicians endorsed SDM, 54.8% of all physicians also endorsed an annual PSA as the standard of care for men over 50. Most physicians felt that decisions should be based on full disclosure of the risks and benefits of testing (93.3%) and that high-risk men should be routinely screened (90.3%). While overall few believed that the specificity and sensitivity of the PSA was adequate (36.6%), half (49.6%) believed providers face malpractice liability if a PSA is not performed and cancer is later detected.

Regarding SDM, most physicians in each group preferred an SDM style (academic clinicians=50.0%, community clinicians=48.5%, and interns/residents=48.2%) or having the patient decide being screened 43.8%, 33.3%, and 36.1%, respectively. Few physicians preferred to make the final decision for their patients (community clinicians=18.2%, interns/residents=15.7%, and academic clinicians=6.3%). There was not a significant difference across the physician groups ($P>.20$).

Of interest were the significant differences by practice setting and level of training. There were significant differences by practice setting and level of training of physicians who agreed that asymptomatic men over 50 should be screened annually ($P<.001$). All academic clinicians and virtually all interns/residents endorsed the belief that decisions to be screened should be based on full disclosure of information about the diagnosis and treatment of early stage disease, compared to community clinicians ($P<.01$, Table 2). More community clinicians agreed that the PSA has acceptable sensitivity and specificity compared to their academic counterparts and interns/residents ($P<.001$). Similarly, community clinicians reported the greatest concern about malpractice liability compared to academic clinicians and interns/residents ($P<.001$). There were no significant differences between the groups regarding their endorsement of routine screening for high-risk men ($P>.20$).

Table 2: Percentage of Physicians Who Agreed or Strongly Agreed With Specific Attitudes About PCS

Beliefs About Prostate Cancer Screening	Interns/ Residents (n=84)	Academic Clinicians (n=16)	Community Clinicians (n=35)	All Physicians (n=135)
Yearly PSA test for asymptomatic men over 50 should be standard of care.**	50.0	25.0	80.0	54.8
High-risk men (African American men and men with a first-degree relative with PCa) should be routinely screened with a PSA test.#	86.7	87.5	100.0	90.3
Patients' decisions to be screened should be based on full disclosure of what is known about the diagnosis and treatment of early PCa.*	96.4	100.0	82.9	93.3
Providers face malpractice liability if a PSA test is not performed and prostate cancer is later detected.**	34.5	62.5	80.0	49.6
PSA has acceptable sensitivity and specificity and positive predictive value as a screening test. **	27.4	20.0	65.7	36.6

* $P < .05$, ** $P < .001$, # $P < .10$

PCS—prostate cancer screening, PSA—prostate specific antigen, PCa—prostate cancer

Systemic, Patient, and Physician Factors That Impact the SDM Process

Physicians indicated how frequently certain systemic, patient, and physician factors influenced the SDM process (Table 3). Across all physicians, lack of time (80.5%), competing health priorities (95.5%), and patient interest (69.9%) were all highly endorsed factors that influence the SDM process. Additionally, the complexity of screening (47.0%) and patients being well informed (51.9%) were endorsed by almost half of all physicians.

Of the systemic factors, physicians only differed on lack of reimbursement for the discussion. Almost 40% of community clinicians compared to 11% of interns/residents and 18.8% of academic clinicians endorsed lack of reimbursement as a factor that influenced their discussions ($P<.01$). Regarding patient factors, there were no significant differences between physician groups regarding patient interest ($P > .20$) or language as a barrier ($P>.20$). However, the more experienced academic and community clinicians were more likely to report that their patients were well informed about screening compared to interns/residents ($P<.01$). Finally, regarding physician factors, there were no differences across the three physician groups regarding whether SDM discussions would discourage patients from being screened. Community clinicians were more likely to endorse the belief that such a discussion would not influence whether he/she ordered the test, compared to academic clinicians and interns/residents ($P<.05$). Interns/residents were more likely to endorse their lack of knowledge about the risks and benefits of screening than either academic or community clinicians ($P<.01$). Finally, significantly more interns/residents (96.4%) than academic (75.0%) or community clinicians (73.5%) indicated that decision aids used during the office visit would be useful ($P<.01$).

Discussion

In this pilot study of PCP's attitudes about the SDM process for PCS, we identified several physician, patient, and systemic factors that influence physicians to engage patients in SDM for PCS. More than 80% of physicians preferred to engage patients in SDM or let patients make the final decision, and virtually all physicians reported that the decision to be screened should be based on full disclosure of what is known about the diagnosis and treatment of early stage prostate cancer. However, more than half of physicians reported that yearly screening should be the standard of care. Compared to academic clinicians, the majority of community clinicians (80%)—the setting where the majority of Americans receive health care—endorsed routine screening. Additionally, community clinicians indicated that the PSA had adequate sensitivity and specificity and believed that they were also medically liable if they did not perform the test.

The physician factors we and other researchers observe may partially explain current screening practices, despite reported physician beliefs.[32] Inconsistent with current evidence of the benefits of screening, American men are more likely to be screened for prostate than for colorectal cancer.[33] Most providers do not discuss PCS with patients, rather they paternalistically order a PSA as part of routine care.[15] In fact, many patients are acutely aware of the harms of prostate cancer and that the PSA can detect disease early, yet many

lack important information about the harms of testing and the uncertainty about whether testing improves morbidity or mortality.[13] As a result, many patients may initially want to be screened but if fully informed may elect to defer screening. However, there are many individual and systemic factors that positively reinforce physicians to conduct screening.

Patient and systemic factors that influenced the SDM process included competing health priorities, time constraints, patient interest, malpractice concerns, and the complexity of screening. In the present sample, these factors were commonly cited by all physicians as possible barriers to the SDM process. For example, acute patient complaints take precedence when patients see their PCPs, and patient interest in screening must also be considered. Added to these factors was the concern about malpractice liability, especially for community clinicians, further reinforcing PCS.[28] Failure to diagnose prostate cancer is well documented as a legal concern for physicians, but there are no known lawsuits regarding screening or overdiagnosis. Interestingly, most providers did not endorse lack of reimbursement, yet they did cite time constraints as a barrier. This is of interest because if SDM were reimbursed, then providers would be given time for such discussions, and the current guidelines could be followed. However, in the current health care environment, reimbursement exists only for the PSA or the DRE but not SDM. At present, the concern about malpractice and the time constraints associated with SDM appear to be the most likely factors contributing to the contradiction between physicians' belief in SDM and their screening practices. Additionally, physicians and patients alike have difficulty appreciating that screening has drawbacks as well as benefits, and therefore discussions between physicians and patients are needed to determine what is most important for each individual.

In our sample, level of training and practice setting also emerged as important. Academic clinicians were least likely to endorse routine yearly screening, followed by clinicians in training and community clinicians. Consistent with Dunn et al (2001), the three groups reported that time constraints, the complexity of screening, and competing demands were common barriers.[15] However, clinicians in training felt less comfortable with their knowledge about the risks and benefits of screening and felt that their patients were less informed about screening than the other two groups; conversely, community clinicians felt greater concern for malpractice. Despite these feelings of discomfort, prior studies have demonstrated that patients report that clinicians in training engage patients as well as academic and community clinicians in the SDM process.[24]

In our study, clinicians in training expressed a greater endorsement of the usefulness of a decision aid during the office visit. This may be to

Table 3: Factors that Influenced SDM Discussions[1]

Factors Influencing Discussions	Interns/ Residents (n=84)	Academic Clinicians (n=16)	Community Clinicians (n=35)	All Physicians (n=135)
Systemic factors				
Lack of time	78.3	87.5	82.4	80.5
Complexity of screening	42.2	53.3	55.9	47.0
Competing priorities/a need to focus on patients' current complaints/disease	97.6	93.8	90.9	95.5
Lack of reimbursement for discussion**	11.0	18.8	38.2	18.9
Patient factors				
Level of patient interest in this topic	67.5	75.0	73.5	69.9
A language barrier between myself and my patients	34.9	37.5	35.3	35.3
The patients I see are already well informed about this topic**	39.8	75.0	70.6	51.9
Physician factors				
My belief that a discussion would not influence whether I order the test*	21.7	6.3	39.4	24.2
My personal lack of knowledge about the benefits and risks of prostate cancer screening **	42.2	6.3	23.5	33.1
The concern that this discussion might discourage my patients from being screened	21.7	12.5	26.5	21.8

* $P<.05$; ** $P<.01$;

** Percentages reflect those who responded sometimes, often, or almost always.

compensate for their lack of knowledge or may suggest an increased receptivity to using decision aids. Additional information is needed to better understand what tools will help physicians and when they will be most useful.

Several limitations need to be considered when interpreting these preliminary results. The small sample size, particularly among academic clinicians, limited our ability to make firm conclusions about group differences. Second, participants were drawn from two affiliated academic hospitals in Washington, DC, and an affiliated community-based practice group of PCPs, potentially limiting the generalizability of the findings. A third limitation was that the data were based on physician self-report rather than observation of SDM processes or medical record review of screening practices.

Conclusions

In summary, these pilot data provide evidence of the multiple challenges that physicians face when assisting their patients in the SDM process for PCS. This is demonstrated by their endorsement of SDM on the one hand and the support of annual PSA testing for men over 50 on the other hand. Given the pressure to provide screening and the current recommendations to discuss the risks and benefits of screening, our results suggest that ongoing physician training regarding these discussions with patients could be beneficial to the SDM process. Additional efforts are warranted to further examine the barriers to engaging patients in SDM for prostate cancer.

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