HHS Public Access

Author manuscript

Cancer. Author manuscript; available in PMC 2015 September 01.

Published in final edited form as:

Cancer. 2014 September 1; 120(17): 2721–2727. doi:10.1002/cncr.28755.

Decisional conflict in economically disadvantaged men with newly diagnosed prostate cancer: Results from a shared decision-making trial

Alan L. Kaplan, MD[1], **Catherine M. Crespi, PhD**[2], **Josemanuel D. Saucedo**[1], **Sarah E. Connor, MPH**[1], **Mark S. Litwin, MD, MPH**[1,3], and **Christopher S. Saigal, MD, MPH**[1]

[1]David Geffen School of Medicine at UCLA, Department of Urology

[2]School of Public Health, Division of Cancer Prevention and Control Research, UCLA

[3]School of Public Health, UCLA

Abstract

BACKGROUND—Decisional conflict is a source of anxiety and stress for men diagnosed with prostate cancer given uncertainty surrounding myriad treatment options. Few data exist to help clinicians identify which patients are at risk for decisional conflict. The purpose of this study was to examine factors associated with decisional conflict in economically disadvantaged men diagnosed with prostate cancer before any treatment choices were made.

METHODS—A total of 70 men were surveyed at a Veterans Administration clinic with newly diagnosed localized prostate cancer enrolled in a randomized trial testing a novel shared decision-making tool. Baseline demographic, clinical, and functional data were collected. Independent variables included age, race, education, comorbidity, relationship status, urinary/sexual dysfunction, and prostate cancer knowledge. Tested outcomes were Decisional Conflict Scale, Uncertainty Subscale, and Perceived Effectiveness Subscale. Multiple linear regression modeling was used to identify factors associated with decisional conflict.

RESULTS—Mean age was 63 years, 49% were African American, and 70% reported an income less than $30,000. Poor prostate cancer knowledge was associated with increased decisional conflict and higher uncertainty ($P < .001$ and $P = 0.001$, respectively). Poor knowledge was also associated with lower perceived effectiveness ($P = 0.003$) whereas being in a relationship was associated with higher decisional conflict ($P = 0.03$).

CONCLUSIONS—Decreased patient knowledge about prostate cancer is associated with increased decisional conflict and lower perceived effective decision-making. Interventions to increase comprehension of prostate cancer and its treatments may reduce decisional conflict. Further work is needed to better characterize this relationship and identify effective targeted interventions.

Corresponding Author: Alan L. Kaplan, MD, Department of Urology, UCLA, 10833 Le Conte Avenue – Box 951738, Los Angeles, CA 90095-1738, (310) 206-6766, (310) 206-3566 – fax.

Disclosures: None

Keywords

Decisional conflict; prostate cancer; low socioeconomic status; knowledge; patient education

INTRODUCTION

Men diagnosed with localized prostate cancer face myriad choices in the decision-making process. Management options include active treatment – i.e. surgery and radiation therapy – or active surveillance. While quality of life detriment has traditionally been ascribed to prostate cancer treatment[1], recent studies illustrate the health related quality of life (HRQOL) impact in men undergoing active surveillance as well[2,3]. To that end, the decision-making process for men with localized prostate cancer is a challenging task for even the most well informed patients.

Shared decision making (SDM) is a process by which physicians share relevant risk and benefit information of all treatment options and patients share relevant personal information with the clinician[4]. Thereby, a truly patient-centered decision is reached. Decisional conflict is a central focus of the interactions that are a part of SDM. It is a measure of the uncertainty surrounding a treatment choice and patient confidence in making that decision[5]. Decisional conflict is especially important for choices complicated by competing risks and outcome uncertainty[6] and may be a useful tool for measuring decision quality[7]. Decisional conflict is associated with decisional regret[8] and a higher likelihood of blaming physicians for adverse effects[9]. Medical decision-making experts advocate for the use of decisional conflict assessment in the clinical setting to ensure provision of adequate patient support[10].

The anxiety inherent in the prostate cancer decision-making process stems from the complexity surrounding treatment options and a lack of consensus on ideal management[11]. In men with prostate cancer participating in a SDM process, reduction in decisional conflict may be a good indicator of better decision quality[7]. Identifying men who have higher pre-treatment decisional conflict may allow for targeted SDM interventions. However, few data exist to guide physicians in determining which patients are at risk for decisional conflict, particularly in economically disadvantaged populations. To identify factors associated with decisional conflict, we conducted a cross-sectional study of economically disadvantaged men with newly diagnosed localized prostate cancer before any treatment choices were made. We hypothesized that men with lower knowledge about prostate cancer and lower educational achievement in general would have higher decisional conflict scores.

METHODS

Study Design

The institutional review board at the University of California, Los Angeles, and the Greater Los Angeles Veterans Health Administration approved this study, and informed consent was obtained from all subjects. Subjects with no prior history of prostate cancer undergoing biopsy were recruited into a multiarm randomized SDM trial. The trial sought to evaluate and improve parameters of SDM through application of a novel tool employing patient

preference assessment. All subjects in the study completed baseline demographic questionnaires and survey instruments, which were used in this cross-sectional analysis of baseline data. Men were included in this analysis if they had a biopsy demonstrating prostate cancer and could be enrolled before their cancer consultation. Baseline demographic, clinical, and functional data were obtained as well as prostate cancer knowledge assessment and scores from the Decisional Conflict Scale (DCS).

Instruments and Psychometric Properties

We used the Decisional Conflict Scale (Appendix 1) and its subscales, Uncertainty and Perceived Efficacy, to determine decisional conflict [6]. The DCS is well validated and has been used in a variety of populations, including men facing decisions about treatment for benign prostatic hypertrophy[12]. The Perceived Efficacy subscale measures the extent to which decisions would be informed, consistent with personal values, and would be implemented[6]. Measured variables included age, race, relationship status, education, Charlson Comorbidity Index[13], prostate cancer knowledge score[14], and EPIC urinary incontinence and sexual functioning scores[15].

Statistical Analysis

We used multiple linear regression modeling to identify factors associated with decisional conflict. Demographic, medical, and baseline functional variables were selected a priori. Adjusted means were calculated as predicted means from the estimated linear regression equation with all other covariates set to their mean values. Statistical significance was defined *a priori* as 0.05. P-values >0.1 are omitted from the tables for clarity.

Conceptual Framework

This study was guided by a broad conceptual framework (Figure 1) – adapted from Fishbein's Integrative Model of behavior[16,17] – that captures the working elements of the prostate cancer decision-making process. The context into which a man enters the process is framed by his demographic, medical and psychosocial backgrounds. His unique set of health beliefs direct the behavioral intention, which in turn frames the decision-making process with the physician. This study explores the unique role decisional conflict plays toward the end of the decision-making process.

RESULTS

Data from all men with newly diagnosed localized prostate cancer (n=70) enrolled in the SDM trial trial between January 2011 and October 2013were for used for this analysis. Cohort characteristics are shown in Table 1. Mean age was 63 years and nearly half of the cohort was African-American. Seventy percent reported an annual income less than $30,000 and 68% were either retired or unemployed.

The linear regression analysis is presented in Table 2. Older age was associated with lower perceived efficacy in decision-making (p=0.005). Poor prostate cancer knowledge was associated with increased overall decisional conflict and more uncertainty (p<0.001 and p=0.001, respectively). Poor knowledge was also associated with lower perceived efficacy

(p=0.003). Being in a relationship was associated with more decisional conflict (p=0.03). Adjusted R^2 values ranged from 0.13 to 0.19. Adjusted means, calculated from the regression model, are provided in Table 3. Figure 2 also displays the adjusted means from total DCS score graphically. Unadjusted means were omitted, as the results were largely similar. Higher prostate cancer knowledge scores were associated with lower decisional conflict across all domains.

DISCUSSION

In the prostate cancer decision-making process, men must weigh the risks and benefits of complex treatment modalities in the face of outcome uncertainty and lack of consensus among physicians regarding the best decision. Men with pre-treatment decisional conflict are important targets for SDM interventions. Few data exist however to guide clinicians in identifying these patients early in the decision-making process. Our cross-sectional study, identifying factors associated with decisional conflict in economically disadvantaged men, has several important findings.

First, poor prostate cancer knowledge was associated with increased overall decisional conflict and more uncertainty. In a separate prostate cancer SDM trial, Kim et al found that poor prostate cancer knowledge corresponded to lower literacy in men of low socioeconomic status (SES)[18]. An estimated 36% of adults in the United States have “basic” or “below basic” health literacy[19]. Men from economically disadvantaged backgrounds have alarmingly low prostate health literacy[19,20], making them susceptible to poor prostate cancer knowledge and decisional conflict. This literacy-knowledge deficit is an ideal target for educational intervention to improve decision-making in economically disadvantaged men with prostate cancer.

Although the literature examining decisional conflict is relatively immature, previous authors identified other mediators of decisional conflict in prostate cancer patients. Berry et al showed that men with localized prostate cancer that exhibited less uncertainty were more satisfied with their decision[21]. This cohort comprised predominantly white men from non-disadvantaged backgrounds. The effect of poor knowledge and uncertainty is likely more pronounced in the currently described cohort. In our analysis, we used a 14-item prostate cancer knowledge questionnaire[14], which may represent a practical and effective means of screening for pre-treatment decisional conflict.

Second, poor prostate cancer knowledge and older age was associated with lower perceived efficacy in the decision-making process. Perceived efficacy is the belief in one’s own ability to complete tasks. In prostate cancer decision-making, perceived efficacy represents a man’s belief in his ability to make a good decision regarding the course of management. We found that men with poor prostate cancer knowledge, as well as older men, had lower perceived efficacy.

In a cross-sectional study of men on active surveillance for localized prostate cancer, Goh et al found that men with higher self-efficacy experienced less decisional conflict [22]. Heckman et al showed that among disadvantaged men with localized prostate cancer those with low

self-efficacy suffered worse quality of life across all domains[23]. Likewise, perceived- or self-efficacy may also be important for preparedness in decision-making. In a study evaluating cancer patients' preparedness for clinical trials, Manne et al determined that assessing self-efficacy might be as important as examining knowledge or attitudinal beliefs[24].

Finally, being in a relationship predicted more decisional conflict. In a study of low-income, uninsured men with prostate cancer, Gore et al identified an association between partnership status and improved quality of life[25]. Conversely, Bergman et al demonstrated comparable physical and mental health scores between partnered and unpartnered men with prostate cancer, although this cohort was comprised of men with a homogeneously high SES[26]. Prostate cancer is often referred to as a "couple's disease" because the impact of treatment on the patient can decrease his ability to be a part of an ongoing sexual relationship with his partner[27]. Discordant preferences between patient and partner might increase decisional conflict since the partner's views are especially salient in the face of a potential decrease in their own sexual QOL. Further work into the impact of discordant preferences between patient and partner in this setting is indicated.

For men with newly diagnosed prostate cancer, their clinical consultation is the point of interaction with the health care system[28] but the impact of their diagnosis will extend further than the physician's office. Our study identifies factors that may be used to distinguish which men are at high-risk for decisional conflict. These data are also hypothesis generating in that certain factors – i.e. prostate cancer knowledge – may represent a modifiable target to reduce decisional conflict. Widespread implementation of decision support interventions in clinical practice has been slow owing to lack of physician time and resources as well as information systems that are incapable of tracking patients through the SDM process[29,30]. However, individual reports indicate that systematic approaches to reducing decisional conflict are feasible and effective. In a cohort of primary care patients, Ferron Parayre et al validated a four-item checklist (SURE) to detect decisional conflict [31]; although this has not been studied in men with prostate cancer. A Scottish randomized controlled trial using a "decision navigation" intervention in men with newly diagnosed prostate cancer found less decisional conflict and lower decisional regret[32]. Likewise, interventions using health coaches in low-income patients in California has shown promise[33]. Through early identification of men at high-risk for decisional conflict, clinicians may be able to guide the patients most in-need toward effective decision support interventions.

The potential for shared decision-making interventions to reduce decisional conflict via potential targets identified here may have benefits beyond those experienced by the patient. Reductions in decisional conflict are associated with decreases in patient delay in making a choice as well as measures of 'fretting' and 'nervousness'[34]. Improvements in decisional conflict may result in more confidence in patients' overall decision-making ability. Such confident patients have been termed 'activated'. Patient activation, as measured by an individual's knowledge, skill and confidence in managing their own healthcare, correlates with improved health economic outcomes[35,36]. Patient activation is also associated with higher compliance, an important consideration for men considering active surveillance[36].

The results of this study must be interpreted in the context of its limitations. First, the size of the cohort is relatively small. Internal review data show dropping referral rates to our clinic for abnormal PSA – likely reflecting new VA health system screening practice guidelines – which has resulted in fewer de novo cancer diagnoses. Nonetheless, we were able to detect significant differences and the factors associated with pre-treatment decisional conflict were similar when studied at interim analysis. Second, decisional conflict measured after the prostate cancer decision has been made is not available in this analysis. We felt that identifying clinical factors associated with pre-treatment decisional conflict was important to gain an understanding of the decision-making process in economically disadvantaged men with newly diagnosed disease.

CONCLUSIONS

In this cross-sectional study of men with newly diagnosed localized prostate cancer, we found that poor prostate cancer knowledge is associated with increased decisional conflict and lower perceived efficacy in decision-making. Through early identification of men at high-risk for decisional conflict, targeted interventions aimed at increasing comprehension of prostate cancer and its treatments may reduce decisional conflict. Further work is needed to better characterize this relationship and identify strategies to improve the decision-making process in economically disadvantaged men with this disease.

Appendix 1. Decisional Conflict Scale

	Strongly Agree [0]	**Agree [1]**	**Neither Agree Nor Disagree [2]**	**Disagree [3]**	**Strongly Disagree [4]**
1. I know which options are available to me.	☐	☐	☐	☐	☐
2. I know the benefits of each option.	☐	☐	☐	☐	☐
3. I know the risks and side effects of each option.	☐	☐	☐	☐	☐
4. I am clear about which benefits matter most to me.	☐	☐	☐	☐	☐
5. I am clear about which risks and side effects matter most to me.	☐	☐	☐	☐	☐
6. I am clear about which is more important to me (the benefits or the risks and side effects).	☐	☐	☐	☐	☐
7. I have enough support from others to make a choice.	☐	☐	☐	☐	☐
8. I am choosing without pressure from others.	☐	☐	☐	☐	☐
9. I have enough advice to make a choice.	☐	☐	☐	☐	☐
10.I am clear about the best choice for me,	☐	☐	☐	☐	☐
11. I feel sure about what to choose.	☐	☐	☐	☐	☐

	Strongly Agree [0]	Agree [1]	Neither Agree Nor Disagree [2]	Disagree [3]	Strongly Disagree [4]
12. This decision is easy for me to make.	☐	☐	☐	☐	☐
13. I feel I have made an informed choice.	☐	☐	☐	☐	☐
14. My decision shows what is important to me.	☐	☐	☐	☐	☐
15. I expect to stick with my decision.	☐	☐	☐	☐	☐
16. I am satisfied with my decision.	☐	☐	☐	☐	☐

References

1. Sanda MG, Dunn RL, Michalski J, et al. Quality of life and satisfaction with outcome among prostate-cancer survivors. N Engl J Med. 2008; 358:1250–1261. [PubMed: 18354103]
2. Steineck G, Helgesen F, Adolfsson J, et al. Quality of life after radical prostatectomy or watchful waiting. N Engl J Med. 2002; 347:790–796. [PubMed: 12226149]
3. Vasarainen H, Lokman U, Ruutu M, et al. Prostate cancer active surveillance and health-related quality of life: results of the Finnish arm of the prospective trial. BJU Int. 2012; 109:1614–1619. [PubMed: 22044485]
4. King JS, Moulton B. Rethinking informed consent: the case for shared medical decision-making. Am J Law Med. 2006; 32:429–501. [PubMed: 17240730]
5. Carpenito, LJ. Nursing Diagnosis: application to clinical practice. 8th. Philadelphia, PA: Lippincott Williams and Wilkins; 2000.
6. O'Connor AM. Validation of a decisional conflict scale. Med Decis Making. 1995; 15:25–30. [PubMed: 7898294]
7. Song MK, Sereika SM. An evaluation of the Decisional Conflict Scale for measuring the quality of end-of-life decision making. Patient Educ Couns. 2006; 61:397–404. [PubMed: 15970420]
8. Brehaut JC, O'Connor AM, Wood TJ, et al. Validation of a decision regret scale. Med Decis Making. 2003; 23:281–292. [PubMed: 12926578]
9. Gattelari M, Ward JE. Will men attribute fault to their GP for adverse effects arising from controversial screening tests? An Australian study using scenarios about PSA screening. J Med Screen. 2004; 11:165–169. [PubMed: 15563771]
10. O'Connor AM, Légaré F, Stacey D. Risk communication in practice: The contribution of decision aids. BMJ. 2003; 327:736–740. [PubMed: 14512487]
11. Zeliadt SB, Ramsey SD, Penson DF, et al. Why do men choose one treatment over another? A review of patient decision making for localized prosate cancer. Cancer. 2006; 106:1865–1874. [PubMed: 16568450]
12. Murray E, Davis H, Tai SS, et al. Randomised controlled trial of an interactive multimedia decision aid on benign prostatic hypertrophy in primary care. BMJ. 2001; 323:493–496. [PubMed: 11532845]
13. Charlson ME, Pompei P, Ales K, et al. A new method of classifying prognostic comorbidity in longitudinal studies: Development and validation. J Chronic Dis. 1987; 40:373–383. [PubMed: 3558716]
14. Deibert CM, Maliski S, Kwan L, et al. Prostate cancer knowledge among low income minority men. J Urol. 2007; 177:1851–1855. [PubMed: 17437834]
15. Wei JT, Dunn RL, Litwin MS, et al. Development and validation of the expanded prostate cancer composite index (EPIC) for comprehensive assessment of health-related quality of life in men with prostate cancer. Urology. 2000; 56:899–905. [PubMed: 11113727]

16. Fishbein M. The role of theory in HIV prevention. AIDS Care. 2000; 12:273–278. [PubMed: 10928203]
17. Frosch DL, Légaré F, Fishbein M, et al. Adjuncts or adversaries to shared decision-making? Applying the Integrative Model of behavior to the role and design of decision support interventions in healthcare interactions. Implement Sci. 2009; 4:73. [PubMed: 19909547]
18. Kim SP, Knight SJ, Tomori C, et al. Health literacy and shared decision making for prostate cancer patients with low socioeconomic status. Cancer Invest. 2001; 19:684–691. [PubMed: 11577809]
19. Kutner, M.; Greenberg, E.; Jin, Y., et al. US Department of Education. Washington, DC: National Center for Education Statistics; 2006. The Health Literacy of America's Adults: Results From the 2003 National Assessment of Adult Literacy.
20. Wang DS, Jani AB, Tai CG, et al. Severe lack of comprehension of common prostate health terms among low-income inner-city men. Cancer. 2013; 119:3204–3211. [PubMed: 23733135]
21. Berry DL, Ellis WJ, Russell KJ, et al. Factors that predict treatment choice and satisfaction with the decision in men with localized prostate cancer. Clin Genitourin Cancer. 2006; 5:219–226. [PubMed: 17239276]
22. Goh AC, Kowalkowski MA, Bailey DE Jr, et al. Perception of cancer and inconsistency in medical information are associated with decisional conflict: a pilot study of men with prostate cancer who undergo active surveillance. BJU Int. 2012; 110:e50–56. [PubMed: 22145791]
23. Heckman JE, Chamie K, Maliski SL, et al. The role of self-efficacy in quality of life for disadvantaged men with prostate cancer. J Urol. 2011; 186:1855–1861. [PubMed: 21944084]
24. Manne S, Kashy D, Albrecht T, et al. Knowledge, attitudes, and self-efficacy as predictors of preparedness for oncology clinical trials: A meditational model. Med Decis Making. 2013 Nov 18. Epub ahead of print.
25. Gore JL, Krupski T, Kwan L, et al. Partnership status influences quality of life in low-income, uninsured men with prostate cancer. Cancer. 2005; 104:191–198. [PubMed: 15912494]
26. Bergman JB, Gore JL, Saigal CS, et al. Partnership and outcomes in men with prostate cancer. Cancer. 2009; 115:4688–4694. [PubMed: 19626653]
27. Soloway CT, Soloway MS, Kim SS, et al. Sexual, psychological and dyadic qualities of the prostate cancer 'couple'. BJU Int. 2005; 95:780–785. [PubMed: 15794782]
28. Legare F, Witteman HO. Shared decision making: Examining key elements and barriers to adoption in routine clinical practice. Health Aff (Millwood). 2013; 32:276–284. [PubMed: 23381520]
29. Taylor KL, Williams RM, Davis K, et al. Decision making in prostate cancer screening using decision aids vs usual care: A randomized clinical trial. JAMA Intern Med. 2013 Jul 29.10.1001/2103.9253
30. Friedberg MW, Van Busum K, Wexler R, et al. A demonstration of shared decision making in primary care highlights barriers to adoption and potential remedies. Health Aff (Millwood). 2013; 32:286–275.
31. Ferron Parayre A, Labrecque M, Rousseau M, et al. Validation of SURE a four-item clinical checklist for decisional conflict in patients. Med Decis Making. 2014; 34:54–65. [PubMed: 23776141]
32. Hacking B, Wallace L, Scott S, et al. Testing the feasibility, acceptability and effectiveness of a 'decision navigation' intervention for early stage prostate cancer patients in Scottland – a randomised controlled trial. Psychooncology. 2013; 22:1017–1024. [PubMed: 22570252]
33. Bennett H, Laird K, Margolius D, et al. The effectiveness of health coaching, home blood pressure monitoring, and home titration in controlling hypertension among low-income patients: protocol for a randomized controlled trial. BMC Public Health. 2009; 9:456. [PubMed: 20003300]
34. Knops AM, Goossens A, Ubbink DT, et al. Interpreting patient decisional conflict scores: behavior and emotions in decisions about treatment. Med Decis Making. 2013; 33:78–84. [PubMed: 22927695]
35. Hibbard JH, Greene J, Overton V. Patients with lower activation associated with higher costs; Delivery systems should know their patients' 'scores'. Health Aff (Millwood). 2013; 32:216–222. [PubMed: 23381513]

36. Hibbard JH, Stockard J, Mahoney ER, et al. Development of the Patient Activation Measure (PAM): conceptualizing and measuring activation in patients and consumers. Health Serv Res. 2004; 39:1005–1026. [PubMed: 15230939]

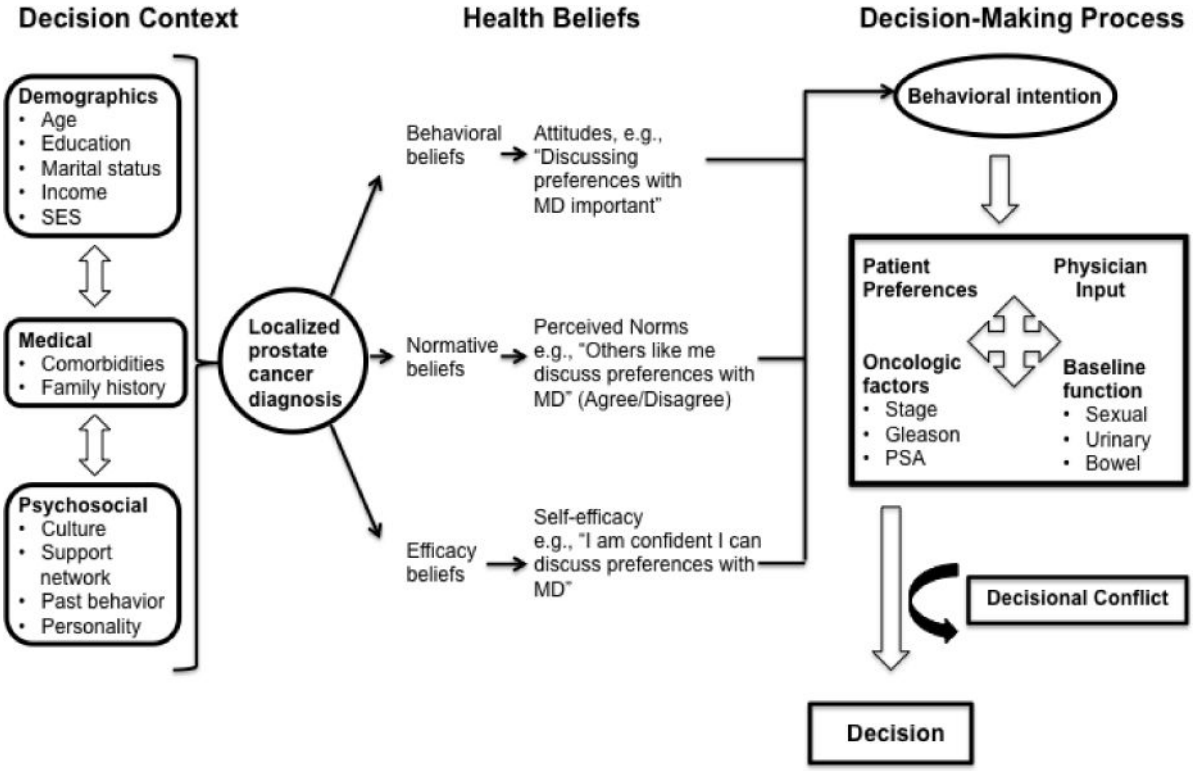
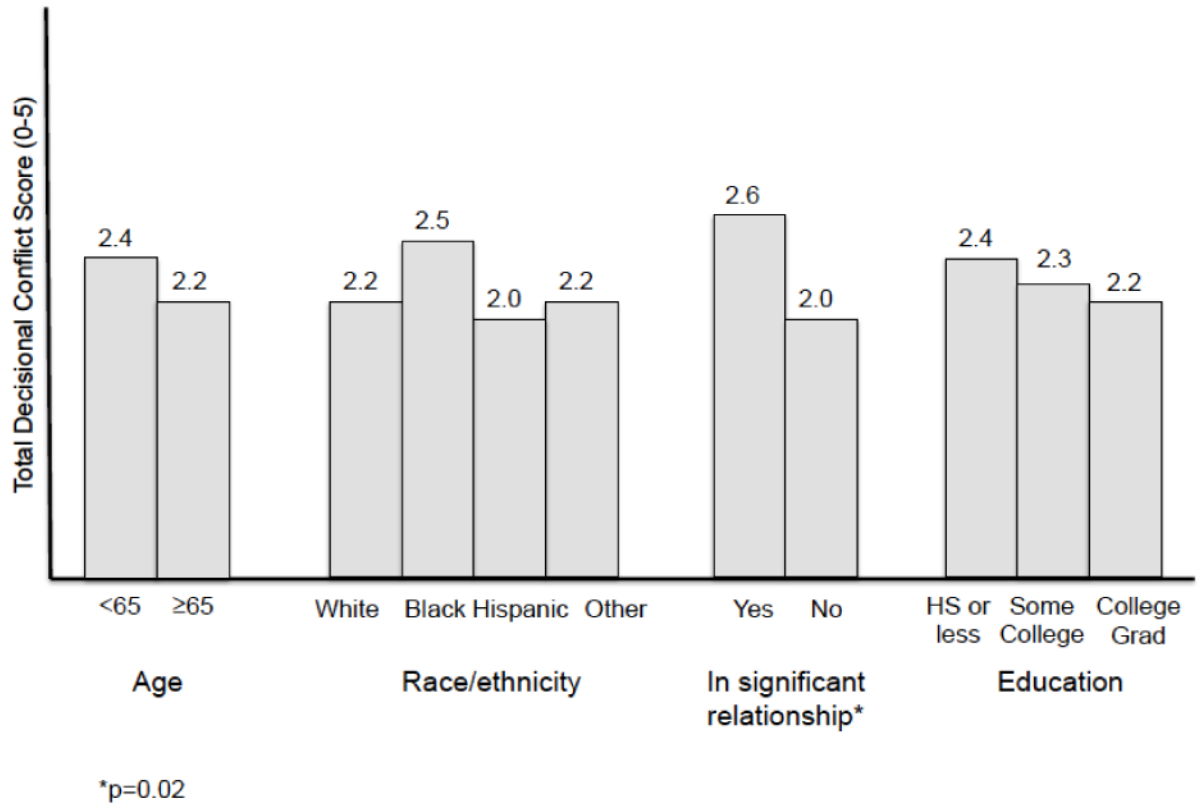


Figure 1.
Conceptual framework of decision-making process in localized prostate cancer.

a



*p=0.02

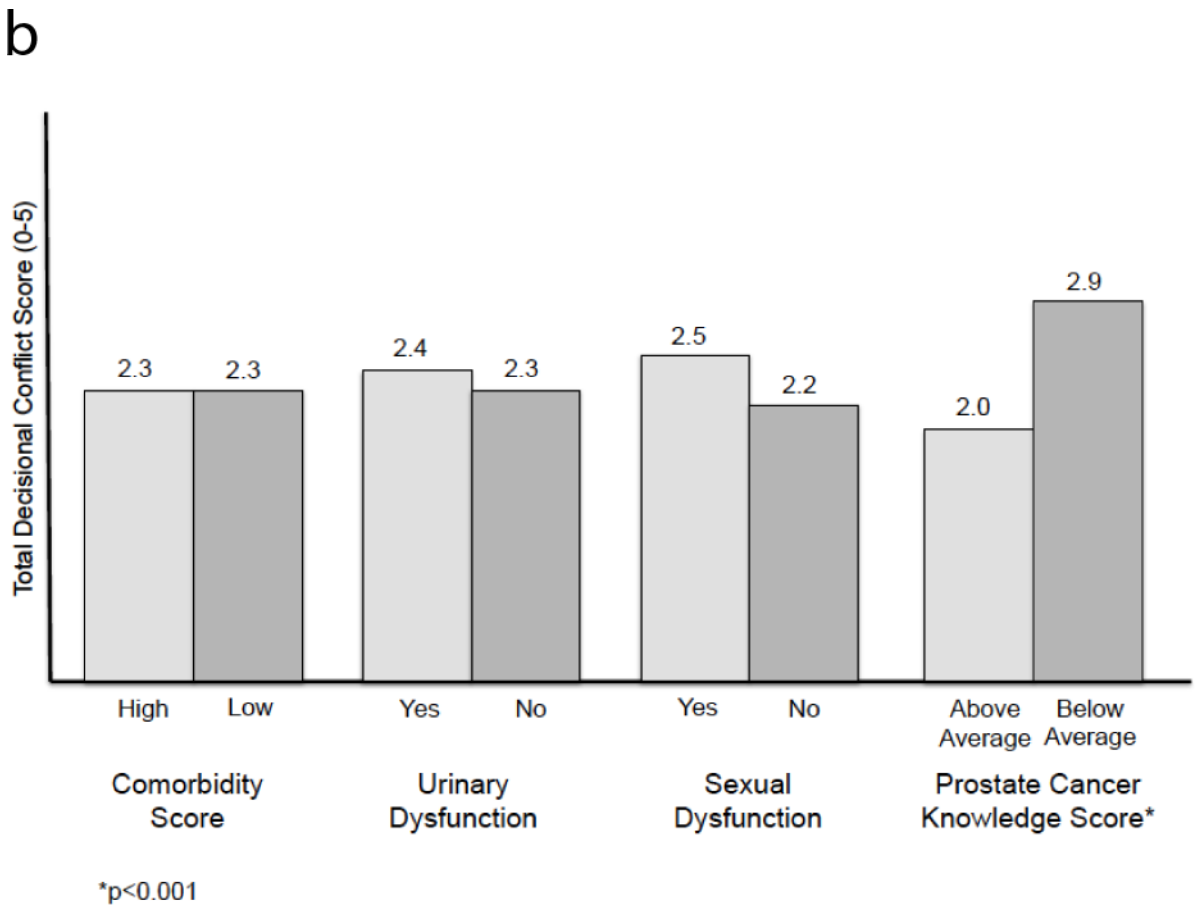


Figure 2.

a. Adjusted means of total DCS score for age, race/ethnicity, relationship status, and education.

b. Adjusted means of total DCS score for comorbidity, urinary and sexual dysfunction, and prostate cancer knowledge score.

Table 1

Cohort characteristics.

Characteristic	Mean ± SD, Range or n (%)
Age	63 ± 6, range 45 to 78
Race/ethnicity	
White (non-Hispanic)	24 (34%)
Black/African American	34 (49%)
Hispanic/Latino	8 (11%)
Other or mixed race/ethnicity	4 (6%)
Partnership status	
In significant relationship	41 (59%)
Not in a significant relationship	29 (41%)
Employment status	
Employed	22 (31%)
Unemployed	12 (17%)
Retired	36 (51%)
Educational attainment	
High school graduate or less	21 (30%)
Some college	29 (42%)
College graduate	19 (28%)
Household income	
Less than $10,000	13 (19%)
$10,000 to $30,000	35 (51%)
More than $30,000	20 (29%)
Current smoker	19 (27%)
Medical conditions (ever had)	
Diabetes	11 (16%)
Heart attack	9 (13%)
Stroke	7 (10%)
Amputation	2 (3%)
Circulation problems	12 (17%)
Asthma, emphysema or breathing problems	12 (17%)
Stomach ulcer or irritable bowel	11 (16%)
Kidney disease	3 (4%)
Major depression	18 (26%)
Seizures	4 (6%)
Alcoholism or alcohol problems	17 (24%)
Drug problems	12 (17%)

Characteristic	**Mean ± SD, Range or n (%)**
Problems in last 4 weeks	
Urinary function	17 (24%)
Sexual function	31 (44%)
Bowel habits	7 (10%)
Hot flashes	1 (1%)
Breast tenderness/enlargement	0 (0%)
Depressed	10 (14%)
Lack of energy	9 (13%)
Change in body weight	6 (9%)

Table 2

Linear regression models.

	DCS total score		DCS Uncertainty subscale		DCS Perceived Efficacy subscale	
	Adjusted R^2: 0.18		Adjusted R^2: 0.13		Adjusted R^2: 0.19	
	Coef (SE)	p	Coef (SE)	p	Coef (SE)	p
Age (10-year increase)	−.28 (.21)		.05 (.29)		−.59 (.20)	.005
Black (ref: White)	.25 (.26)		.56 (.36)		−.07 (.26)	
Hispanic (ref: White)	−.14 (.39)		.30 (.55)		−.59 (.39)	
Other race (ref: White)	−.11 (.49)		−.06 (.70)		−.69 (.49)	
In significant relationship (ref: not)	.54 (.24)	.03	.67 (.34)	.05	.44 (.24)	.08
Some college (ref: high school or less)	.09 (.30)		−.05 (.42)		.18 (.30)	
College (ref: high school or less	.04 (.32)		−.06 (.44)		.16 (.31)	
Charlson Comorbidity Index (1-pt increase)	−.02 (.10)		.05 (.14)		−.02 (.10)	
Urinary functioning problem	−.01 (.28)		−.01 (.40)		−.10 (.28)	
Sexual functioning problem	.20 (.24)		.25 (.34)		.26 (.24)	
Prostate cancer knowledge score	−1.9 (0.5)	<.001	−2.4 (0.7)	.001	−1.5 (0.5)	.003

P-values >0.1 not provided.

DCS – Decisional Conflict Scale

Table 3

Adjusted means as derived from the regression model.

	DCS total score		DCS Uncertainty subscale		DCS Perceived Efficacy subscale	
	Adjusted mean (SE)	**p**	**Adjusted mean (SE)**	**p**	**Adjusted mean (SE)**	**p**
Age						
<65 years	2.4 (0.2)		2.4 (0.2)		2.4 (0.2)	
≥65 years	2.2 (0.2)		2.4 (0.2)		2.0 (0.2)	
Race/ethnicity						
White	2.2 (0.2)		2.2 (0.3)		2.3 (0.2)	
Black	2.5 (0.2)		2.7 (0.2)		2.3 (0.2)	
Hispanic	2.0 (0.3)		2.3 (0.5)		1.8 (0.3)	
Other	2.2 (0.5)		2.2 (0.6)		1.8 (0.5)	
In significant relationship		.02		.04		.06
Yes	2.6 (0.2)		2.7 (0.2)		2.4 (0.2)	
No	2.0 (0.2)		2.0 (0.2)		1.9 (0.2)	
Education						
HS or less	2.4 (0.2)		2.7 (0.3)		2.2 (0.2)	
Some college	2.3 (0.2)		2.3 (0.2)		2.3 (0.2)	
College graduate	2.2 (0.2)		2.3 (0.3)		2.2 (0.2)	
Comorbidity Score						
High	2.3 (0.1)		2.4 (0.3)		2.2 (0.2)	
Low	2.3 (0.2)		2.4 (0.2)		2.2 (0.1)	
Urinary functioning problem						
Yes	2.4 (0.2)		2.5 (0.3)		2.2 (0.2)	
No	2.3 (0.1)		2.4 (0.2)		2.2 (0.1)	
Sexual functioning problem						
Yes	2.5 (0.2)		2.7 (0.2)		2.4 (0.2)	
No	2.2 (0.2)		2.2 (0.2)		2.1 (0.2)	

	DCS total score		DCS Uncertainty subscale		DCS Perceived Efficacy subscale	
	Adjusted mean (SE)	**p**	**Adjusted mean (SE)**	**p**	**Adjusted mean (SE)**	**p**
Prostate cancer knowledge score		<.001		.001		.003
Above average	2.0 (0.1)		2.0 (0.2)		1.9 (0.1)	
Below average	2.9 (0.2)		3.1 (0.3)		2.7 (0.2)	

P-values >0.1 not provided.

DCS – Decisional Conflict Scale