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Informed decision making prior to PSA screening: Initial results using the American Cancer Society (ACS) Decision Aid (DA) among medically underserved men

Mehmet Ilker Gokce, MD,

The University of Texas MD Anderson Cancer Center Department of Urology

Xuemei Wang, MS,

The University of Texas MD Anderson Cancer Center Department of Biostatistics

Jacqueline Frost,

The University of Texas MD Anderson Cancer Center Department of Urology

Pamela Roberson,

The University of Texas MD Anderson Cancer Center Department of Urology

Robert J. Volk, PhD,

Professor, The University of Texas MD Anderson Cancer Center Department of Health Services Research, Division of Cancer Prevention and Population Sciences

Durado Brooks, MD, MPH,

Cancer Control Interventions, The American Cancer Society, Inc

Steven E Canfield, MD, and

University of Texas Medical School at Houston, Division of Urology

Curtis Pettaway, MD

Professor, The University of Texas MD Anderson Cancer Center Department of Urology

Abstract

Corresponding Author: Curtis A. Pettaway MD, Address: 1155 Pressler Street, 77030, Houston, Texas. cpettawa@mdanderson.org
Phone: +1 (713) 482 9138 Fax: (713) 794-4824.

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Authors' contribution:

Conceptualization—Curtis Pettaway, Robert J. Volk.

Methodology—Curtis Pettaway, Robert J. Volk, Durado Brooks.

Software—N/A

Formal analysis—Xuemei Wang, Mehmet I. Gokce.

Investigation—Jackie Frost, Pamela Roberson, Steven E Canfield.

Resources—Curtis Pettaway, Robert J. Volk.

Data curation—Jackie Frost, Pamela Roberson, Steven E Canfield.

Writing – original draft—Curtis Pettaway, Mehmet I. Gokce.

Writing – review and editing—Curtis Pettaway, Robert J. Volk, Durado Brooks, Xuemei Wang, Mehmet I. Gokce, Steven E Canfield.

Visualization—Curtis Pettaway, Mehmet I. Gokce.

Supervision—N.A.

Project administration—Curtis Pettaway, Jackie Frost, Pamela Roberson, Steven E Canfield.

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Background—The American Cancer Society (ACS) recommends men have the opportunity to make an informed decision about screening for prostate cancer (Pca). The ACS developed a unique decision aid (ACS-DA), for this purpose. However, to date studies evaluating efficacy of the ACS-DA are lacking. We evaluated the ACS-DA among a cohort of medically underserved men (MUM).

Methods—A multi-ethnic cohort of MUM (n=285) was prospectively included between June 2010 and December 2014. The ACS-DA was presented in a group format. Level of knowledge on Pca was evaluated before and after the presentation. Subjects' decisional conflict and thoughts about the presentation were also evaluated. Logistic regression analyses were performed to determine factors associated with having an adequate level of knowledge.

Results—Before receiving ACS-DA, 33.1% of the subjects were found to have adequate knowledge on Pca and this increased to 77% after receiving the DA ($p<0.0001$). On multivariate analysis, higher education level (OR:11.19; $p=0.001$) and history of another cancer (OR:7.45; $p=0.03$) were found to be associated with having adequate knowledge after receiving the DA. Level of decisional conflict was low and correlated with level of knowledge after receiving DA. The majority of patients also rated the presentation as favorable and would recommend the ACS-DA to others.

Conclusions—Use of the ACS-DA was feasible among MUM and led to increased Pca knowledge. This also correlated with low levels of decisional conflict. The ACS-DA presented to groups of men may serve as a feasible tool for informed decision making in a MUM population.

Keywords

prostate cancer screening; decision aid; racial disparities; PSA screening; informed decision making

Introduction

Prostate cancer (Pca) is the most common cancer among men in the United States with an estimated 221,000 cases and 27,500 deaths in 2015.¹ Screening and early detection of Pca mainly relies on PSA testing and digital rectal examination (DRE), however both of these tests are imperfect screening tools. Given the uncertainty related to the magnitude of benefit in mortality reduction versus harms caused by screening the U.S. Preventive Services Task Force (USPSTF) has recommended against PSA screening for the general population.² The American Cancer Society (ACS) recommends that men should learn about the potential benefits and harms of screening and decide whether screening is right for them.³ Similarly, The American Urological Association (AUA) has recommended against routine screening and recommended shared decision-making for men age 55 to 69 years based on a man's values and preferences.⁴

Decision aids (DAs) are tools developed to educate patients about possible benefits and harms of a medical condition and help them with their decision on potential options.^{5–7} DAs for screening of Pca have been developed and their role in increasing patients' level of knowledge, decreasing decisional conflict and impact on screening behaviors have been evaluated in a number of studies.^{8–26} Results of these studies mainly show an increased level

of knowledge, but decreased decisional conflict could not be established in some of the studies.^{13, 14, 26} In 2010, the ACS developed a unique DA, The ACS Prostate Cancer Early Detection Decision Aid (ACS-DA), to aid in providing the essential components of information related to discussing the risks and benefits of prostate cancer early detection. The DA was developed to support their recommendations for the early detection of prostate cancer.³ We are unaware of subsequent publications utilizing the DA to evaluate its performance in promoting informed screening decisions.

In this study we evaluated the efficacy of the ACS-DA in group of medically underserved men (MUM) who were candidates for prostate cancer screening. We also wanted to assist them with defining their preferences. Herein we extend our prior observations among MUM while also assessing compliance with follow-up recommendations among indigent subjects who were engaged in the Harris Health Care System in Texas.

Materials and methods

Participants and recruitment

Subjects were prospectively included in the study from June 2010 through December 2014. The target population was an indigent male population between 40–70 years of age who were patients within the Harris Health Care System (HHS) in Harris County, Texas. The Settegast Clinic within the HHS was the recruitment site for the project and serves a largely medically underserved African American and Hispanic population.

Men were invited to participate in a prostate cancer education session in one of two ways 1) Men visiting the Settegast clinic for other reasons were invited by flyer to participate in a prostate cancer education and early detection session using the ACS DA. 2) Clinic physicians who were aware that the free education sessions were available and referred men to participate in the sessions.

Development of The ACS - DA

The DA was developed by ACS staff and volunteers in conjunction with the publication of the 2010 ACS guideline for prostate cancer early detection.³ The 2010 guideline recommends an informed decision-making approach for men who may be eligible for PSA based screening, and the manuscript includes a section detailing key information on the potential benefits and harms of PSA screening that should be shared with patients as part of the informed decision making discussion. The ACS Pca guideline development committee also recommended that ACS develop a simple DA to assist clinicians with this discussion.³

The DA was developed by ACS staff and the guideline committee's informed decision making expert (RV), with ongoing feedback from the guideline development committee. The ACS-DA content was written at a 5th grade reading level. Prostate cancer statistics and other numeric information were presented in a simplified fashion through the use of graphics and illustrations. The near-final version of the decision aid then underwent a qualitative evaluation by 31 men of diverse racial and ethnic (40% African American, 40% Caucasian, 20% Hispanic) origins. Two-thirds of the men had incomes < \$25,000 annually, and one-third were judged to have marginal or poor literacy. After reading the draft DA the men

underwent one-on-one interviews designed to assess understanding of important facts about Pca screening, readability, perceived biases in the presentation of the information, usefulness of the information, and the main idea – i.e. Pca testing is a choice and each man should decide whether testing is right for him. Overall, respondents viewed the DA very positively, judged that the information on benefits and harms was presented in a balanced manner, and believed that after reading it they had a heightened awareness of and increased information about prostate cancer and testing for the disease. These reviewers provided a number of suggested edits and modifications that were incorporated into the final version of the ACS-DA (See Supplemental files 1 and 2 for the focus group summary of findings and the final decision aid).

Data collection

Patient data were collected prospectively under an Institutional Review Board (IRB) approved Tissue/Data collection protocol related to procuring serum/tissue/data among medically underserved men considering early detection for prostate cancer. Data were retrospectively analyzed using a second protocol specific IRB approval related to the assessment of the ACS decision aid. Demographic data including age, race, level of education, type of insurance, smoking, occupational risk factors, previous Pca screening, family history of Pca and lower urinary tract symptoms were collected. Patients were subsequently given a questionnaire of 11 questions (see supplement file 3) to determine their baseline knowledge about Pca. The questionnaire was modified from two previous studies.^{27, 28} Patients who answered at least 8 of the 11 survey questions correctly were designated as having adequate Pca knowledge. Subjects were then provided the ACS-DA using a power-point presentation and Pca knowledge was tested a second time. Of note we made the decision to utilize a power point version of the decision aid in order to facilitate group education sessions and to potentially reduce barriers to participating. The presentation was given by a Harris Health Education Specialist who was not involved as a part of the research team. The sessions included from 2–14 men with an average attendance of approximately 8 men.

After the DA presentation subjects were asked about their decision to undergo screening. Additionally they were asked to complete a ten question Decisional Conflict Scale which assesses uncertainty, whether subjects felt informed, had clarity on the information, and felt supported.²⁹ The Decisional Conflict Scale was scored from 0 to 100 with a higher score indicating higher level of decisional conflict. Patients with a score of ≤ 25 were accepted as having low decisional conflict. Another 5 question survey to evaluate the presentation focusing on the amount of information given, length of the presentation, clarity and balance of information as to whether the presentation appeared to favor screening or not was also given. Finally, patients were asked to answer three questions on their personal opinions about a Pca diagnosis, possible regret about their decision on getting tested, and future loss of erectile functions if they had treatment. The first question was, ‘If you had prostate cancer, would you want to know?’, the second question was ‘If you decided to not be tested for prostate cancer, and then you later developed prostate cancer, would you regret your decision?’, and the third question was ‘If you were to lose your ability to have an erection, what would it mean to you?’

Screening and early detection procedures

Patients who decided to get screened underwent serum Prostate Specific Antigen (PSA) testing, and digital rectal examination (DRE) free of charge. Patients with an abnormal PSA level (defined as ≥ 2.5 ng/ml) and/or abnormal DRE (presence of induration and/or frank nodules) were contacted to provide them with a clinic appointment for further counseling and possibly prostate biopsy.

Statistical analysis

Patient characteristics were summarized using median (range) for continuous variables and frequency (percentage) for categorical variables. The agreement between pre- and post-test scores were assessed using McNemar's test. Univariate and multivariate logistic regression analyses were performed to assess the association between having adequate knowledge (i.e., correctly answered ≥ 8 out of 11 questions) and other patient characteristics. Exact logistic regression analysis was performed when some cells formed by the outcome and categorical predictor variable had no observations. The Fisher's exact test was used to analyze the association of Decisional conflict score and pre- and post-presentation level of knowledge. All statistical analyses were performed in SAS 9.3.

Results

Two hundred and eighty-five patients were included in the study. The mean ($\pm$ SD) age of the population was 57 ± 7.9 years (range: 35–84). Characteristics of the population are summarized in table 1. AA men comprised 73.1% of the population and 75.8% of the participants had the equivalent of a high school or less degree of education. The median income of the cohort was $< \$15,000$.

Before receiving the DA, Pca knowledge was evaluated in 239 patients; 79 (33.1%) were shown to have adequate knowledge about Pca (i.e., ≥ 8 correct answers). The median number of correct answers was 6 (range: 0–11). After receiving the DA 226 patients took the posttest and 174 (77%) of these patients were shown to have adequate knowledge with median number of correct answers of 9 (range: 1–11). The improvement in the proportion of patients having adequate Pca knowledge was statistically significant ($p < 0.0001$).

None of the patient characteristics were found to be associated with having adequate knowledge before receiving the DA. However, having an education level higher than high school (OR: 10.15, 95% CI: 2.38 – 43.38, $p = 0.002$) and having history of another type of cancer (OR: 6.43, 95% CI: 1.34 - Inf, $p = 0.04$) were found to be associated with having adequate knowledge after receiving the DA in the univariate logistic regression analysis. The results of logistic regression analysis are summarized in table 2. These two factors were then included in a multivariate logistic regression analysis and both level of education (OR: 11.19, 95% CI: 2.61 – 47.93, $p = 0.001$) and having history of another type of cancer (OR: 7.45, 95% CI: 1.52 - Inf, $p = 0.03$) were found to be significantly associated with adequate knowledge after receiving the DA.

After receiving the DA, the patients' decision to undergo screening could be evaluated in 218 subjects. Two hundred and six (94.5%), 8 (3.7%), and 4 (1.8%) of the patients,

respectively, stated they wanted to be tested, were unsure, or did not want to be tested for Pca. The mean ($\pm$ SD) Decisional Conflict Score of the population was 7.9 ± 14.5 and the mean ($\pm$ SD) scores of the Uncertainty, Informed, Values clarity, and Support subscales were 3.5 ± 12.5 , 12.7 ± 24.9 , 6.7 ± 19.7 , and 6.9 ± 17.2 respectively. The Decisional Conflict Scale score was found to have a significant correlation with the post-presentation level of knowledge in the total score and all subscales except uncertainty and support subscales. The results are summarized in table 3.

Most patients also rated the presentation favorably in terms of amount, length, clarity, and balance of information and would recommend to others. However patients were also asked about their opinion of the presentation in terms of its balance and 43.4% of the patients stated that it was clearly slanted to favor screening. The questions and summary of answers are presented in table 4.

Patients' responses to the questions on their values were as follows: 212 of the 218 (97.2%) of the patients stated that they would like to know if they had Pca; 189 of the 217 (87.1%) patients stated that they would greatly regret or have some regret about their decision to not get tested if they were diagnosed with Pca later; and 46 of the 216 (21.3%) patients stated that loss of erectile function would be a minor adjustment for them, whereas 25% of them stated that they might never adjust to it and 53.7% stated that it would be bad but they could adjust to it.

Two hundred eighty-one men (98.5%) ultimately signed an informed consent to have a PSA test performed as a part of the Prostate Outreach Project (POP) enrollment. The median serum PSA level was 0.9ng/ml (range: 0.1–10.7). DRE was performed in 180 men with 29 (16.1%) abnormal. Either an abnormal DRE or abnormal serum PSA was noted in 51 of the 281 (18.1%) patients that underwent PSA testing and/or DRE. Four of the patients were lost to follow up and remaining 47 patients were contacted and given an appointment. Thirty-seven (78.7%) of these 47 patients kept their appointment. An additional 10 patients were given an appointment for their lower urinary tract symptoms and 9 of these patients also kept their appointment. The overall patient compliance rate was 80.7% with a follow-up appointment. After the clinic visit, prostate biopsy was performed in 16 patients and six of 16 biopsied patients (37.5%) exhibited Pca. Reasons for not undergoing biopsy included a repeat DRE with normal results, physician or patient preference in order to follow serial serum PSA levels over time.

Discussion

PSA based screening in the general population has been debated and the USPSTF has recommended against routine PSA screening.² Both the ACS and AUA recommend informed decision making before Pca screening.^{3, 4} The ACS developed a DA for this particular purpose but to our knowledge reports of its use have not been published to date. In this study we used the ACS-DA in the form of a presentation and the results support significant improvement in the patients' level of knowledge on harms and benefits of Pca screening, was well accepted by the patients, and maintained low decisional conflict scores in a population of MUM.

In our cohort, 33.1% of the patients were found to have adequate baseline knowledge and this rate increased to 77% after the presentation. Increased knowledge on Pca screening after DA has been reported previously in a number of studies.^{8, 10–15, 17–21, 23–26, 30, 31} The level of increase in Pca knowledge depends on many factors such as baseline level of knowledge, educational status of the population, the type of DA (web based, print or presentation) and the content of the DA. For instance, in the study by Ashorobi et al. we previously reported that 17% of the patients were found to have adequate level of knowledge and this increased to 58% after utilizing a video format educational tool that was written at a 10th-grade reading level.³¹ In the present study, the ACS-DA, which was developed for 5th grade reading level, was given to patients in a unique form of a power-point presentation and mediated higher rate of patients with adequate knowledge. While both studies were performed in the community setting and had over 60% African American male participants, the current study represented men who presented at a health clinic for services. The prior study by Ashorobi included a more unselected cohort of AA underserved males in that 40% had no physician and 50 % were uninsured. Thus, differences in baseline and post-test knowledge were likely mediated by multiple factors including the study population, educational content, reading level, and method of presentation.

In the study by Magnus et al. income level and having a family member with history of Pca were found to be associated with higher level of Pca knowledge.³² Similarly in the study by Weinrich et al., family income was identified as being associated with knowledge on Pca screening in a population of men mostly AA origin.³³ In the study by Ashorobi et al., AA race, education level greater than high school, positive family history of Pca, possession of insurance, and prior Pca testing were found to be associated with adequate level of knowledge.³¹ However, in the current study we could not identify any of the factors associated with adequate level of knowledge. This may be associated with relatively lower number of patients in the current study. Additionally, we accepted 8 correct answers of 11 questions as adequate knowledge but it was 8 out 10 in the study by Ashorobi et al.³¹ Therefore, the threshold for adequate knowledge was somehow lower in the current study and this may explain the disparity in the baseline rate of patients with adequate knowledge and the factors associated with adequate knowledge.

Patient education related to Pca screening is especially important for men in the medically underserved populations, particularly those of Hispanic and AA ethnicity. In a population based survey, rates of utilization of Pca screening tests were evaluated. Men of Hispanic and AA ethnicity in addition to men with less than a high school education or a low income level were found to have the lowest prevalence of Pca screening.³⁴ Miller et al. also noted that contrary to the general population, the rate of clinically insignificant low stage Pca does not increase in the low income, uninsured population.³⁵ Therefore, under-detection and under-treatment are still significant problems in this population. This is especially relevant given that the studies that the USPSTF used as a data source for their recommendations had few AA men.² Given this dilemma it becomes even more important the AA and other underserved populations be provided with information about the risks and benefits of Pca early detection so that they can make informed decisions about testing.

After the presentation, patients' decisional conflict levels were found to be low. This was concordant with the previous studies that reported decreased decisional conflict after receiving the DA.^{8, 10–13, 15, 18, 22, 30} Decisional conflict levels were also correlated with the level of knowledge after the presentation in that those with adequate knowledge also tended to have low decisional conflict levels. In their study Taylor et al. reported mean decisional conflict scores of 10.7 and 11.4 for their groups of patients who received print and web based DA's.²² Mean decisional conflict score after the presentation was 7.9 in the present study and this was slightly lower but consistent with the finding of Taylor et al.²²

The amount of information given in the presentation, length of presentation, and clarity of the information were all scored satisfactory by the patients. Also 96.4% of the patients stated that they would recommend the presentation to others facing this decision. However, we noted that 43.4% of the patients stated that the presentation was clearly slanted to favor testing. This contrasted with the nearly one half of the patients who stated that it was completely balanced. This was not explained by different presenters as over 90% of the sessions were provided by the same education specialist. Given that the material was presented to the men versus self-administered we also cannot dissect whether this was related to the presenter or the material. A similar schism was recorded in the qualitative evaluation of the self-administered version of the DA during its' development. Most participants perceived the tool as presenting the pros and cons of screening in a balanced fashion, but others felt the tool was "pro-screening". This issue raises an item for further study to determine the optimal use of the ACS DA among various cohorts of men.

An abnormal screening event was observed in 18.1% of the patients and this was similar to the 14% rate in the study by Ashorobi et al.³¹ However patient compliance was 80.7% in the current study, double the 40% rate of adequate follow up in the study by Ashorobi et al.³¹ One obvious difference in the two populations was that in the current study subjects were already engaged with the healthcare system when they were recruited to be a part of the study. This was not the case in our prior study as 50% were uninsured and 40% had no physician. While we provided navigated assistance in attempting to bring the subjects from the study reported by Ashorobi et al into the system barriers included, incorrect contact information, unaware of being lost to follow-up, or stating that they wanted to see other physicians. As the subjects in the current study were already engaged in a healthcare system follow-up was facilitated.

While the current study provides unique evidence regarding the use of the ACS-DA for informed decision making it has several limitations. The DA was given as a PowerPoint presentation rather than by self-administration. While we believed this would improve compliance and the ease of providing the information to this MUM cohort we may have introduced a bias related to presenting the material itself. Another important point is that patients' decisional conflict levels were evaluated only after the presentation. We do not know the patients' decisional conflict levels before the intervention, and it is possible many had already made a decision about screening. Notwithstanding, the data supports that the DA did improve knowledge and that such an improvement in knowledge was associated with lower decisional conflict.

Another important limitation of the study relates to the selection of patients for prostate cancer early detection. Both the American Urologic Association and the American Cancer Society recommend screening be avoided in men with less than a ten-year life expectancy. Comorbid conditions among this study population included Diabetes, Heart Disease, hypertension, and prior stroke. While the subjects were all ambulatory and did not appear to have any obvious limitations during their clinic visit we cannot be certain that all of the subjects had an anticipated 10 year life expectancy. Thus some of our patients may have eventually undergone screening inappropriately. Given that a portion were not referred by their primary care providers this may have affected that group of men more significantly. Based on current guidelines we agree that the DA is optimally used in conjunction with the physician among a population of men referred by their physicians that have an anticipated life expectancy of greater than 10 years. The appropriately educated patient and physician can then make a final decision about whether to be screened or not. This is relevant as the DA itself does not provide information on how life expectancy might affect a decision for prostate cancer screening but does urge subjects to speak with their physicians about screening. In this regard there are several online tools that can assist physicians in determining the likelihood of a patient's survival at 5–10 years factoring in their medical history. (36–38)

Notwithstanding the above limitations,, this is the first study reporting on the use of ACS-DA. The successful use of the DA among an indigent cohort of men of low educational level speaks to its potential utility as an educational tool in busy outpatient settings where primary care physicians may feel overburdened or uncomfortable with their existing knowledge base to counsel their patients.³⁹ Future studies should prospectively evaluate the optimal method of administration of the DA among diverse populations of men while measuring baseline variables related to existing knowledge and attitudes about Pca detection and treatment, as well as decisional conflict.

Conclusions

Use of the ACS-DA in the form of a presentation among a multiethnic underserved cohort was feasible in a clinic setting. The ACS-DA presentation lead to increased Pca knowledge and this was directly correlated with low levels of decisional conflict with respect to Pca early detection. These results suggest that the ACS-DA given in the form of a presentation was a feasible tool for informed decision making among this cohort and should be further evaluated as a model for educating men about Pca early detection prior to testing.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

General characteristics of the population

Variable		N	%
Race	African American	179	73.1
	Caucasian	14	5.7
	Hispanic	50	20.4
	Asian	1	0.4
	Other	1	0.4
	Missing	40	
Insurance	Yes	204	87.2
	No	30	12.8
	Missing	51	
Education	8th grade or less	26	10.3
	9th to 11th grade	48	19.0
	high school	117	46.4
	technical school	27	10.7
	associates degree	23	9.1
	bachelors degree	11	4.4
	Missing	33	
Smoking	Yes	83	33.7
	Previous smoker	50	20.3
	Never smoked	113	45.9
	missing	39	
Family history of PCa	Yes	39	16.8
	No	102	44.0
	Not known	91	39.2
	Missing	53	
Household income	Unknown	32	15.5
	<15,000	115	55.6
	15–25,000	38	18.4
	26–35,000	15	7.2
	36–45,000	3	1.4
	46–55,000	2	1.0
	56–65,000	1	0.5
	66–75,000	1	0.5
	Missing	78	
Prostate Infection With In 1 Year	No	228	95.4
	Yes	11	4.6
	Missing	46	
Prostate surgery within 1 year	No	237	97.9

Variable		N	%
	Yes	5	2.1
	Missing	43	
Rectal exam within 1 year	No	275	96.5
	Yes	10	3.5
	Missing	-	
PSA within 1 year	No	227	96.2
	Yes	9	3.8
	Missing	49	
Blood in urine within 1 year	No	227	94.6
	Yes	13	5.4
	Missing	45	
Burning on urination within 1 year	No	214	89.9
	Yes	24	10.1
	Missing	47	
Erection problems	Never	108	49.3
	Sometimes	73	33.3
	Often	38	17.4
	Missing	66	
Diabetes	No	103	60.9
	Yes	66	39.1
	Missing	116	
Heart disease	No	126	85.1
	Yes	22	14.9
	Missing	148	
Stroke	No	126	90.6
	Yes	13	9.4
	Missing	146	
High blood pressure	No	53	28.6
	Yes	132	71.4
	Missing	100	

Table 2

Univariate logistic regression models for pre-DA and post DA level of knowledge. The outcome variable is whether or not correctly answered at least 8 out of 10 questions (yes vs. no).

Covariate	pre-DA			post DA		
	OR	95% CI	p-value	OR	95% CI	p-value
Age	1.02	0.98 – 1.05	0.40	1.00	0.96 – 1.04	0.91
Race (Others vs. Black)	1.24	0.67 – 2.30	0.49	0.64	0.32 – 1.29	0.21
Education (more than high school vs. high school or lower)	1.09	0.58 – 2.05	0.79	10.15	2.38 – 43.38	0.002
Insurance (yes vs. no)	0.97	0.42 – 2.20	0.93	1.13	0.42 – 3.00	0.81
Work risk (yes vs. no)	0.68	0.37 – 1.23	0.20	0.96	0.49 – 1.87	0.91
Cancer history (yes vs. no)	2.41	0.84 – 6.92	0.10	6.43	1.34 – Inf*	0.04
Family history of cancer (yes vs. no)	1.05	0.49 – 2.25	0.91	1.07	0.38 – 3.00	0.90
Household income ($\geq$ /\$15,000 vs. $<$ \$15,000)	1.28	0.66 – 2.47	0.46	1.04	0.44 – 2.50	0.93
Number in household (2 vs. 0,1)	0.95	0.46 – 1.99	0.90	1.34	0.55 – 3.30	0.36
Number in household ($\geq$ /=3 vs. 0,1)	0.84	0.42 – 1.69	0.62	0.89	0.40 – 1.96	0.43

* Exact logistic regression models were fit due to the fact that there is no subjects with a positive cancer history and a post DA $<$ 8 correct answers

Table 3

Association between level of Pca knowledge and Decisional Conflict Scale score

Decisional Conflict Scale score	Pre-presentation knowledge (n=223)		P value	Post-presentation knowledge (n=225)		P value
	<8 correct answers, n (%)	8 correct answers n (%)		<8 correct answers, n (%)	8 correct answers, n (%)	
Total score			0.055			<0.0001
25	130 (87.2)	71 (95.9)		40 (75.5)	161 (93.6)	
>25	19 (12.3)	3 (4.1)		13 (24.5)	11 (6.4)	
Uncertainty subscale			0.67			0.22
25	144 (97.3)	73 (98.6)		49 (92.5)	167 (97.1)	
>25	4 (2.7)	1 (1.4)		4 (7.5)	5 (2.9)	
Informed subscale			0.06			<0.0001
25	112 (75.2)	64 (86.5)		28 (52.8)	147 (85.5)	
>25	37 (24.8)	10 (13.5)		25 (47.2)	25 (14.5)	
Values clarity subscale			0.06			0.002
25	131 (87.9)	71 (95.9)		41 (77.4)	161 (93.6)	
>25	18 (12.1)	3 (4.1)		12 (22.6)	11 (6.4)	
Support subscale			0.68			0.08
25	127 (85.2)	65 (87.8)		41 (77.4)	151 (87.8)	
>25	22 (14.8)	9 (12.2)		12 (22.6)	21 (12.2)	

Table 4

Patient evaluation of the ACS-DA presentation

Questions	Answers	Number (%)
How would you rate the amount of information given in the presentation?	Much less than wanted	14 (6.3)
	Little less than wanted	5 (2.3)
	About right	162 (73.3)
	Little more than wanted	7 (3.2)
	Much more than wanted	33 (14.9)
How would you rate the length of the presentation?	Much too long	6 (2.7)
	Little too long	9 (4.1)
	About right	196 (88.7)
	Should have been a little longer	5 (2.3)
	Should have been much longer	5(2.3)
How clearly were the issues presented in the presentation?	Everything clear	173 (78.6)
	Most things clear	36 (16.4)
	Some things unclear	11 (5.0)
	Most things unclear	-
How would you rate the presentation?	Clearly slanted to favor testing	96 (43.4)
	Slightly slanted to favor testing	8 (3.6)
	Completely balanced	110 (49.8)
	Slightly slanted to favor not testing	7 (3.2)
	Clearly slanted to favor not testing	-
Would you recommend the presentation to other people facing this decision?	Yes	213 (96.4)
	No	1 (0.5)
	Not sure	7 (3.2)