

## Research

# A Brief Educational Video about Prostate Cancer Screening: A Community Intervention

Caryn A. Sheehan

Screening for prostate cancer is an important issue because of the high incidence of prostate cancer world-wide (Haas, Delongchamps, Brawley, Wang, & de la Roza, 2008). The current available screening tests, the digital rectal exam (DRE), and the serum prostate-specific antigen (PSA) are associated with poor sensitivity and specificity, leading most health care agencies to recommend that primary care providers utilize individualized discussion and informed decision making prior to their use (National Guideline Clearinghouse, 2008). However, research indicates that men are not well informed of the incidence of risk factors and screening options for prostate cancer, and therefore, may be ill prepared to decide whether or not to pursue screening (Chapple, Ziebland, Hewitson, & McPherson, 2008; Jemal et al., 2007; Paul et al., 2003; Schulman, Kirby & Fitzpatrick, 2003; Weinrich et al., 2007).

Many decisional aids have been utilized by both physicians and nurses to successfully address this knowledge deficit; however, most have targeted men already visiting their health care provider, or have been signifi-

*In this study, men scored higher on a knowledge questionnaire, were more likely to rate their personal risk of developing prostate cancer correctly, and stated they were more likely to discuss screening with their primary care provider after a brief video intervention.*

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**Key Words:** Patient education, prostate cancer screening, video intervention, prostate cancer, community prostate screening.

### Purpose/Objectives

The purpose of this study was to examine the efficacy of a brief digital video intervention on levels of knowledge and perceived individual risk of developing prostate cancer for men of average risk.

### Design

Pre-test/post-test.

### Setting

Community agencies, civic groups, and churches in New Hampshire.

### Sample

123 Caucasian men, ages 45 to 75 years.

### Methods

This one group, pre-test/post-test design included a 6-minute video intervention presenting information about prostate cancer and prostate cancer screening based on Centers for Disease Control and Prevention (CDC) Guidelines.

### Main Research Variables

Knowledge, perceived risk, and intention to discuss prostate cancer screening with a primary care provider.

### Findings

Men scored significantly higher on a knowledge questionnaire and were significantly more likely to rate their personal risk of developing prostate cancer correctly after watching the video. In addition, the number of men who intended to discuss prostate cancer screening with their primary care provider increased significantly after the video intervention.

### Conclusion

A brief video may be an effective methodology for teaching men about prostate cancer.

### Implications for Nursing

Interventions aimed at educating men about prostate cancer and prostate cancer screening do not necessarily need to be time-consuming to be effective.

### Level of Evidence – III

(Melnik & Fineout-Overholt, 2005)

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cantly labor-intensive or time-consuming. The study reported here examined an educational intervention that targeted men in the community while maintaining brevity and limiting expense.

The purpose of this pre-test/post-test study was to determine the benefits of watching a short informational digital video disk (DVD) about prostate cancer screening. The two research hypotheses were: 1) men will have significantly higher knowledge scores after watching the educational DVD on the post-test of prostate cancer screening knowledge when compared to the pre-test, and 2) men will rate their risk more accurately after watching the DVD education intervention compared to their perceived risk rating prior to the intervention.

## Literature Review

Prostate cancer screening has been the center of controversy for many years due to the low sensitivity and specificity of the PSA and DRE tests (Parpart, Rudis, Schreck, Dewan, & Warren, 2008). The PSA test misses about 25% of prostate cancers and gives a false positive result approximately 60% of the time (Gambert, 2001). Prostate cancer screening has also been controversial because of the lack of evidence that screening reduces mortality in prostate cancer (National Cancer Institute [NCI], 2008).

As a result, current prostate cancer screening recommendations vary. The NCI (2008) and the United States Preventative Services Task Force (USPSTF) (2008) state there is insufficient evidence to recommend screening with DRE and PSA. In addition, the USPSTF recently updated their recommendations to advise against screening for men over age 75 (USPSTF, 2008). The American College of Preventive Medicine does not support routine screening with DRE and PSA (Ferrini & Woolf, 2008). The American Cancer Society (ACS) and the American Urological Association (AUA) have a more

aggressive approach to screening, and recommend DRE and PSA for men at average risk beginning at age 50, and beginning at earlier ages for men with risk factors (ACS 2008; AUA 2008).

Shared decision making is built upon knowledge. Shared decision making for prostate cancer screening is a process where an informed patient actively engages in a discussion about what is in his own best health interest (Hoffman & Helitzer, 2007). Unfortunately, in the primary care setting, shared decision making is costly in terms of time and effort, and is a difficult concept to reliably measure in research (Elwyn, Edwards, & Kinnersley, 1999). In prostate cancer screening, shared decision making does not always occur; Guerra, Jacobs, Holmes, and Shea (2007) observed that one-third of physicians reported ordering a PSA without any prior patient discussion. Some have proposed that health care providers have a moral obligation to educate men about prostate cancer screening, since to not do so may result in medical care that is against a man's actual wishes (Berglund, Nilsson, & Nordin, 2005). Without adequate knowledge, men are ill prepared to participate in the shared decision-making process.

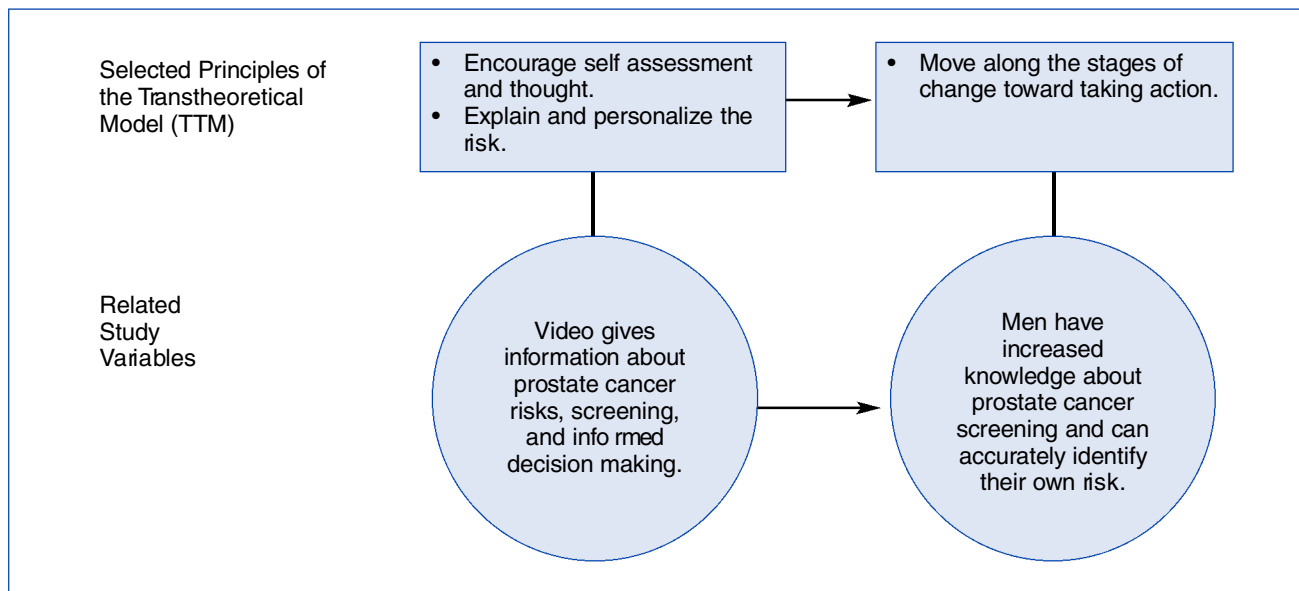
Research suggests that men may not be well informed about prostate cancer and have difficulty assessing their own risk of developing the cancer. In a survey of men from several different countries ( $N = 1,400$ ), only 39% spontaneously mentioned prostate cancer when asked which types of cancer they were aware of, and only 50% stated knowledge of any type of prostate cancer screening (Schulman et al., 2003). Steele, Miller, Maylahn, Uhler, and Baker (2000) observed that 20% of men ( $N = 631$ ) over age 50 thought they had no risk at all of developing prostate cancer. Additional studies that measured knowledge of prostate cancer also observed low levels of prostate cancer knowledge (Chapple et al., 2008; Paul et al., 2003; Weinrich et al., 2007).

Various teaching aids have been utilized and researched to provide the knowledge necessary to participate in shared decision making about prostate cancer screening. Randomized controlled studies (Frosch, Kaplan, & Felitti, 2003; Partin et al., 2004; Volk, Cass, & Spann, 1999) all accessed men who were already scheduled for an office visit and found a significant increase in knowledge after a video intervention. Later, Volk, Spann, Cass, and Hawley (2003) observed that the knowledge benefit gained from the video intervention was still evident at a 1-year follow up.

Other studies have compared various types of educational interventions and their efficacy at increasing knowledge. Gattellari and Ward (2005) mailed a pamphlet, a booklet, or a video to 421 men, and then initiated contact 1 week later for follow up. While all interventions significantly increased knowledge, the percentage correct on a post-test was significantly higher among men who received the booklet than it was for men who viewed the video or read the leaflet ( $p < 0.001$ ). However, Partin et al. (2004) observed that a pamphlet and a video were equally effective ( $n = 893$ ). Frosch et al. (2003) noted that men who watched a video performed better on the knowledge index than men who watched an on-line slide program. Lastly, Schapira and Vanruiswyk (2000) compared an illustrated pamphlet to a traditional pamphlet and noticed that both increased knowledge, but neither increased the actual use of PSA screening.

Fewer studies have tested educational interventions intended for men in the community. Weinrich et al. (1998) accessed 497 African-American males in churches to provide an educational lecture, slideshow, and question-and-answer session about prostate cancer screening. The program was administered in 55 churches and resulted in nearly 72% of the sample participating in a free prostate screening thereafter. Bridge, Berry-

**Figure 1.**  
**Correlation of the Transtheoretical Model with Study Design**



Bobovski, and Gallagher (2004) also accessed men via churches but did not limit the population to African-American men; 55% were Caucasian. Men were also accessed from various community agencies and businesses to reach a sample size of 650 men. The intervention (a 45-minute slide presentation) and results were impressive and similar to an earlier study (Weinrich et al., 1998); at 3-month follow up, 52% had seen their doctor to discuss PSA testing.

While some studies have tested men's knowledge of risk factors, the specific concept of accurate personal risk has not been widely tested in interventional studies. Watson et al. (2006) identified perceived risk as an important independent predictor of men's intention to seek prostate cancer screening. Schnur et al. (2006) observed that men rated their perceived risk of developing prostate cancer fairly low, yet slightly higher than their risk of developing other diseases; findings also supported their hypothesis that men who have family history of prostate cancer have higher perceived risk. Folkins et al. (2005) observed that the majority of men could identify increasing age and family history as two important risk factors (78% and

60%, respectively); however, only 25% knew that African-American men have a much higher risk.

Reaching consensus among these comparative studies must be done with caution since the concept of shared decision making is difficult to quantify, and each study utilized a different video, pamphlet, and/or booklet under different circumstances. These study interventions were largely offered to populations of men who were either African American, already affiliated with a medical practice, or seeking free PSA screenings. Many studies have called for further investigation into patient education and empowerment aids, as well as means to educate men in the community who may not otherwise be connected to health care providers (Chan et al., 2003; Guerra et al., 2007; Rai et al., 2007).

### Conceptual Framework

The idea that perceptual and environmental factors, such as exposure to health education, influence health-related choices has been proposed in the Transtheoretical Model (TTM) (Prochaska & DiClemente, 1983; Prochaska & Velicer, 1997). The

model has been used to determine predictors and variables associated with cancer screenings, such as cervical screening, colorectal screening, and most commonly, mammography (Honda & Gorin, 2006; Kelaher et al., 1999; Rakowski, Dube, & Goldstein, 1996). While the application of the TTM to prostate screening is still under investigation, components of other models, such as the Health Belief Model and the Theory of Planned Behavior, have demonstrated modest levels of success in predicting participation in prostate cancer screening but performed poorly in predicting which men would actively request the PSA test (Berglund et al., 2005; Nivens, Herman, Weinrich, & Weinrich, 2001). With lack of successful application of previously tested models, and the successful use of the TTM in predicting breast cancer screening, application of the TTM to prostate cancer screening is warranted. Figure 1 provides a schematic representation of how the TTM is aligned with the study reported here.

### Methods

#### Design

This study was a one-group, pre-test/post-test design. Meas-

urement occurred immediately before as well as immediately after watching the DVD intervention for each male participant. The participants served as their own controls.

### Sample

The sample strategy was to access community-dwelling men. Participants were unaware of the content of the presentation until the description of the study was presented to them. Men of all races and education levels were welcomed to participate. Inclusion criteria included men age 45 to 75 who have the ability to read, hear, understand, and speak English. Men who had previously been diagnosed with prostate cancer were also allowed to participate in the intervention but were excluded from data analysis because of possible confounding knowledge of the disease. Thus, the only exclusion criterion was a previous diagnosis of prostate cancer.

Subjects were recruited from 12 different community sites, including churches, senior centers, Lion's clubs, Kiwanis clubs, Rotary clubs, pharmacies, and neighborhood/town meetings in the Northeast United States. Out of approximately 175 men who watched the video, a total of 123 men met the sample criterion, consented, and completed the study requirements. With this sample size, a medium effect size ( $d = 0.5$ ), and  $\text{Alpha} = 0.05$ , the post hoc actual power of this study was 0.97.

### Variables

The video, designed by an experienced nurse educator, was approximately 6 minutes in length and included content about prostate cancer screening as recommended by the Centers for Disease Control and Prevention (CDC) (Russell, Flood, Berge, & Coates, 2003). The video showed a nurse speaking as well as bulleted lists written at an 8th grade reading level. Content of the video followed the three major domains tested by the 10-item PROCASE Knowledge In-

dex, including prostate cancer facts and risk factors, PSA accuracy, and treatment efficacy and complications (Radosevich et al., 2004). The content of the video was also consistent with previously published research that summarizes what physicians and patients agree are the most important facts to know prior to making an informed consent for PSA screening, such as the uncertainty of benefits and worry involved with testing and symptoms of prostate cancer (Chan & Sulmasy, 1998). Emphasis was on the importance of shared decision making. Men who met the study criteria pre-tested the video during development and rated the video as unbiased.

### Instruments

A total of four questionnaires were utilized during this study. The measures of knowledge, risk, and intent to discuss were administered both before and after the intervention. The fourth instrument, which consisted of demographic/background information, was only administered after the intervention. In addition to asking usual demographic information (such as age, race, education level, marital status, and family history of prostate cancer), the tool prompted men to reflect on their previous exposure to prostate cancer information in the media and their overall use of media-related activities. The demographic questionnaire asked for the subjects' assessment of the video intervention length and bias.

The PROCASE Knowledge Index was selected and administered both before and after the video intervention because it is a well-established standardized measure of men's knowledge of prostate cancer screening. This 10-item questionnaire has been utilized with a sample of 1,152 male veterans over the age of 50, and demonstrated acceptable reliability ( $KR-20 = 0.68$ ) and strong construct and criterion validity in the past (Radosevich et al., 2004). The content of the questionnaire intentionally mea-

sures three major content areas: the natural history of prostate cancer, the PSA test, and prostate cancer treatment. The individual items can be answered as "true," "false," or "I do not know," with the incorrect choice and "I do not know" scored as incorrect answers. Total scores can range from 0 to 10, with higher scores indicating better knowledge.

In addition to the PROCASE questionnaire, an additional single questionnaire item asked about personal risk assessment both before and after the intervention. Men answered the question "How would you rate your personal risk of developing prostate cancer?" as either "no risk," "lower than average risk," "average risk," "higher than average risk," or "I do not know." This item was then scored as correct or incorrect based on the demographic information that each man provided on his demographic questionnaire. Answers were evaluated based on the three major risk factors for prostate cancer: increasing age, family history of prostate cancer in a first-degree relative, and being of African American descent (ACS, 2007). An age cut off at 60 years old was used to distinguish between "average" and "high risk," since the risk of prostate cancer is approximately 1 in 45 for men aged 40 through 59 years and increases rapidly to 1 in 7 for men aged 60 through 79 years (Jemal et al., 2007). Any man who chose "no risk" or "I do not know" was scored as incorrect. After watching the video and completing the knowledge questionnaire, men were asked the same risk question and then scored as correct or incorrect again.

The last single item question that was included both before and after the intervention was an assessment of how likely each man was to have a detailed discussion with his primary care provider about utilizing the PSA screening test in the near future. Men could answer "I do not intend to plan a discussion," "I intend to discuss in the next 6 months," "I am likely to have a

**Table 1.**  
**Demographic Characteristics of the Sample**

Characteristic	<i>n</i>	%	Minimum	Maximum	Mean
Age in years	123		45	75	60.2
Ethnicity					
Caucasian	123	100%			
Education					
Less than high school	2	2%			
High school graduate	9	7%			
Some college	30	24%			
College graduate	82	66%			
Marital status <sup>a</sup>					
Married	107	87%			
Single	5	4%			
Divorced/separated	5	4%			
Widowed	5	4%			
Ever had a PSA test					
Yes	84	68%			
No	32	26%			
I do not know	7	6%			
Ever had a prostate biopsy <sup>a</sup>					
Yes	14	11%			
No	108	88%			
I do not know	0	0%			
Hours per week accessing internet <sup>a b</sup>	119		.0	50.0	9.0
Hours per week watching TV <sup>a b</sup>	118		.0	35.0	11.7
Hours per week reading newspapers or magazines <sup>a b</sup>	119		.0	30.0	6.5

<sup>a</sup> Missing data excluded.

<sup>b</sup> A few subjects reported no hours of internet or reading per week, and one subject reported no TV watching (did not own a television set).

discussion in the next 30 days,” or “I have previously had this discussion with my primary care provider.” After the video intervention, men were asked the same question about their intent to have a detailed discussion with their primary care provider about the PSA screening test in the near future. Classifying criteria were the same as when this question was posed in the pre-intervention questionnaire.

### Procedures

After obtaining Institutional Review Board approval, potential community sites were contacted by email and invited to join the study. Subjects were addressed as a group at their community agency site. Each informational meeting, formal presentation of the video, and all data collection were completed by the principle investigator to minimize extraneous variables.

After the study was explained to the group, the men signed a written consent and completed the pre-test. Once the video was finished, men were prompted to complete the post-test. Men were asked to refrain from discussing the video until all participants finished the post-test.

### Data Analysis

Data were analyzed with SPSS V 15 software package for Windows XP. Paired samples *t*-tests were utilized to compare the PROCASE knowledge scores from pre-test to post-test. Because of the dichotomous result of the personal risk assessment (scored as correct/incorrect), the risk data and intention to discuss screening were evaluated with Pearson Chi-square. With the interval data of age and hours of media exposure multiple regression analysis was performed.

### Results

The sample varied in age from 45 to 75 years old ( $M = 60$  years). All subjects were Caucasian, most were married (87%,  $n = 107$ ), and two-thirds had some college education (66%,  $n = 82$ ). See Table 1 for additional demographic data. In addition, most (85%,  $n = 105$ ) reported they did not have or did not know of any first-degree male relative who has had prostate cancer.

### Hypothesis #1

Results support the first hypothesis that men achieve significantly higher knowledge scores after watching the educational DVD on the post-test of prostate cancer screening knowledge when compared to the pre-test. The PROCASE Knowledge Index scores increased by 20%,

**Table 2.**  
**Categories and Results of Pre/Post PROCASE Subscales**

# of Items	Category	Pre-Test Mean	Post-test Mean	Mean Difference
5	Correct responses for the Natural History of Prostate Cancer section	3.03	4.08	1.025*
3	Correct responses for the PSA Test section	2.07	2.77	0.705*
2	Correct responses for the Prostate Cancer Treatment section	0.66	1.02	0.352*
10	Correct responses for the Total PROCASE Survey	5.8	7.9	2.083*

\* $p < 0.001$

**Table 3.**  
**Pre-Intervention Rating of Personal Risk of Developing Prostate Cancer Compared to Post-Intervention**

Rating		Was the subject's self risk correct before the video?			Was the subject's self risk correct after the video?		
		Yes Correct	No Incorrect	Pre Total	Yes Correct	No Incorrect	Post Total
No risk	<i>n</i> (%)	0(0)	4 (3.3)	4 (3.3)	0 (0)	5 (4.1)	5 (4.1)
Lower than average	<i>n</i> (%)	2 (1.7)	21 (17.4)	23 (19.0)	6 (5.0)	21 (17.4)	27 (22.4)
Average risk	<i>n</i> (%)	46 (38.0)	18 (14.9)	64 (52.9)	56 (46.2)	10 (8.3)	66 (54.5)
Higher than average risk	<i>n</i> (%)	7 (5.8)	8 (6.6)	15 (12.4)	10 (8.3)	8 (6.6)	18 (14.9)
I do not know	<i>n</i> (%)	0 (0)	15 (12.4)	15 (12.4)	0 (0)	5 (4.1)	5 (4.1)
Total	<i>n</i> (%)	55 (45.5)*	66 (54.5)	121 (100)	72 (59.5)*	49 (40.5)	121 (100)

\* $p = 0.005$

which was an average of an additional 2 points (out of 10 points total) answered correctly from before the intervention to after ( $M = 5.8$ ,  $M = 7.9$ , respectively;  $t = 11.1$ ,  $p < 0.001$ ). Each of the mean scores from the three domain areas of the tool increased significantly after the intervention. See Table 2 for details of the pre/post-subscales results and the change in means. Reliability for the PROCASE Knowledge Index in this study was acceptable (Cronbach's Alpha = 0.73).

In addition, as part of the demographic questionnaire, men were asked to write in how many hours they spent reading, watching TV, and accessing the Internet. Multiple regression analysis was conducted to evaluate how the use of each of these media predicted scores on the PROCASE Knowledge Index before the video intervention. There was no significant linear relationship ( $R^2 = 0.034$ ,  $F = 1.20$ ,  $p = 0.316$ ).

### Hypothesis #2

The second hypothesis that men will rate their risk more accurately after watching the DVD intervention was also supported. Fewer than half of the men, 45.5% ( $n = 55$ ), were correct in their self-assessment before the video, and 59.8% ( $n = 73$ ) were correct after the video (see Table 3). Only 7 men (5.8%) moved from a correct risk assessment to an incorrect risk assessment, while 23 men (19%) moved from an incorrect risk assessment to a correct risk assessment. Thus, the intervention was successful (McNemar Chi-square = 33.91,  $p = 0.005$ ) at improving the men's perceived risk with only a few men moving from correct to incorrect.

Two-thirds ( $n = 10$ ) of the men who "did not know" their risk prior to the video were able to correctly rate their risk after watching the video intervention. More importantly, an additional three men were able to correctly rate their personal risk as "higher than average" after watching the video. Age was related to the pre-video

self-risk assessment (Pearson Chi-square = 14.68,  $p = 0.012$ ), with the majority of the youngest men (72.3% of men age 45 to 54 years,  $n = 24$ ) and the oldest men (73.7% of men ages 70 to 75 years,  $n = 14$ ) assessing their personal risk incorrectly. Age differences in the post-video score were not statistically significant.

### Other Findings

Since this study accessed men in the community who were not actively seeking health care, this study anticipated that many men would state that they did not intend to discuss prostate cancer screening with their primary care provider prior to the intervention. However, only 14.9% ( $n = 18$ ) fell into this category and stated they did not intend to discuss prostate cancer screening with their primary care provider in the next 6 months (see Table 4). After viewing the DVD, the number who were still in this category decreased to 10.7% ( $n = 13$ ) ( $p < 0.001$ ).

Overall, on the post-test ques-

**Table 4.**  
**Intent to Discuss PSA Screening with Primary Care Provider**

	Pre-intention n (%)	Post-intervention I (%)
Do not intend to discuss in next 6 months	18 (15)	13 (10.8)
Do intend to discuss in the next 6 months	29 (24.2)	37 (30.8)
Do intend to discuss in the next 30 days	7 (5.0)	10 (8.4)
Already discussed	67 (55.8)	61 (50.0)
Total n	121 (100)	121 (100)
Chi-Square <sup>a</sup>	67.5*	56.2*

Missing cases excluded.

\* $p < 0.001$

**Table 5.**  
**Subjects' Opinion of the Video Intervention**

Opinion	n	%
<b>Bias<sup>a</sup></b>		
The video presents both the benefits and the risks with PSA screening equally.	82	66.7
The video discourages men to get a PSA test.	2	1.6
The video encourages men to get a PSA test.	37	30.1
<b>Length<sup>a</sup></b>		
The video length was about right.	116	94.3
The video length was too long.	0	0
The video length was too short.	6	4.9

<sup>a</sup> Missing data excluded.

tionnaire, men responded to the DVD in a remarkably positive manner. Ninety-five percent ( $n = 116$ ) noted that the length was neither too long nor too short, but was actually "about right," and 67% ( $n = 82$ ) perceived the video to be balanced, citing both the benefits and drawbacks of the PSA test equally. Of those who thought the video was not balanced, only 2 (1.6%) thought the video encouraged men *not* to go for prostate cancer screening (see Table 5).

## Discussion

Overall, the sample was quite homogeneous. Although participants were not excluded based on race, the location of the study and convenience sampling resulted in a sample primarily consisting of average-risk men (such as Caucasian and only a few with a familial history of prostate cancer). Nonetheless, men of average

risk still have a difficult decision regarding whether or not to pursue prostate cancer screening. The sizeable proportion of the sample who were married and educated with a college degree is likely related to the data collection sites because many subjects were attending civic group functions that perform community service. Research has shown that the capacity and willingness to volunteer for community service has been associated with access to both cultural and social resources (Musick, Wilson, & Bynum, 2000).

Despite a fairly well-educated sample, men in this study demonstrated poor knowledge of prostate cancer screening at baseline and demonstrated difficulty when attempting to correctly identify their own risk for developing prostate cancer. These findings are consistent with prior studies (Krist, Woolf, Johnson, & Kerns, 2007; Mainous & Hagen,

1994; Steele et al., 2000). As is generally expected when a post-test is given immediately following an intervention, participants' scores increased on the post-test. This is consistent with previously published research (Watson et al., 2006).

The fact that men were able to correctly rate their own personal risk of developing prostate cancer better after watching the video is important, given the difficulty of this task. Essentially asking men to do this requires the men to not only recall basic facts, but to actually apply this information objectively to their own situation. In addition, some men may have difficulty admitting a high risk of developing a certain illness, especially cancer. Prior studies have suggested that social expectations of men may contribute this sense of "immunity/immortality" (Tudiver & Talbot, 1999).

## Discussion of Conceptual Framework Results

Overall, the concepts included in this study from the TTM were moderately successful at predicting an increase in the number of men who would plan to discuss prostate cancer screening with their primary care provider. Providing information and individualizing the risk seem to be relevant to men at different levels of behavior change because all categories of intention to discuss increased after the intervention. Even men who originally stated that they had already spoken with their pri-

primary care provider changed their intentions on the post-test to say they will seek to have this discussion again.

### Limitations

One of the major limitations is that this study did not address actual changes in screening behavior. The mismatch between prostate cancer screening education and change in screening behavior contributes to this dilemma. In distant as well as recent studies, increased knowledge of the PSA test has been associated with more negative perceptions of the PSA screening test, in some cases, resulting in less interest and/or lowered use of PSA screening (Flood et al., 1996; Frosch, Kaplan, & Felitti, 2001; Gattellari & Ward, 2005; Krist et al., 2007).

Other threats to the external validity of this study include the convenience sampling and the possibility of the Hawthorne Effect. The men may have answered differently than what they usually would because their answers were being observed and recorded. Lastly, among these limitations is the notion that these results are not generalizable beyond the characteristics of the study sample because of the lack of random sampling.

### Recommendations for Future Research

Using a brief DVD as a community teaching tool appears to have some merit and warrants additional research with different populations. Future research should target men who do not have access to primary care and/or who do not have health insurance. Ideally, future research would also follow up with each man to see if he acted on his stated intentions to discuss prostate cancer screening with his primary care provider.

### Nursing Implications

Nurses need to address the inadequate knowledge of prostate cancer, its risk factors, and the options for screening with men in

the community. In this study, despite very low knowledge scores, half of the men stated that they had already discussed prostate cancer screening with their health care provider. One wonders about the depth of such discussions and if this can be truly categorized as “shared decision making,” when these same men knew so little about the basic facts of prostate cancer, its screening, and their own risk profile on the pretest.

Nurses are uniquely qualified and respected in the role of health educator. Indeed, nurses have been rated as the “most honest and ethical” professionals by the American public for seven consecutive years (Saad, 2008). This reputation precedes nurses in their interactions with people from the community and impacts the level of trust people place in the message sent by nurses.

In this era of cost and time containment in health care, patient education about PSA testing needs to be concise and accessible to all men. Nurses should consider utilizing the multitude of resources (videos, pamphlets, booklets) that have demonstrated efficacy helping men understand prostate cancer screening. For a copy of the tool used in this study, please contact the author at the e-mail address listed on page 103; for a list and access to additional patient education tools, visit the Cochrane Decision Aid Registry at [http://decisionaid.ohri.ca/docs/develop/Cochrane\\_Inventory.xls](http://decisionaid.ohri.ca/docs/develop/Cochrane_Inventory.xls)

### Conclusion

Shared decision making is currently the ideal method to decide who should be screened for prostate cancer. However, ensuring that a man is knowledgeable about prostate cancer and his personal risk of developing the disease can be costly in terms of time and energy during the primary care office visit. Public health education can play an important role in lightening the load of primary care providers who are expected to see

more patients and be more thorough in less time than ever before. This study lends support to the idea that with digital video technology, effective education about prostate cancer need not be cumbersome or time-consuming for the nurse. Education does, however, need to be far-reaching to help men assimilate their own risk for developing this cancer. ■

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