This material is protected by U.S. copyright law. Unauthorized reproduction is prohibited. To purchase quantity reprints, please e-mail reprints@ons.org or to request permission to reproduce multiple copies, please e-mail pubpermissions@ons.org.

Barriers and Facilitators of Prostate Cancer Screening Among Filipino Men in Hawaii

Francisco A. Conde, APRN, PhD, AOCNS®, Wendy Landier, RN, PhD, CPNP, CPON®, Dianne Ishida, APRN, PhD, Rose Bell, RN, NP-C, MSN, Charlene F. Cuaresma, MPH, and Jane Misola, RN, PhD

rostate cancer is the most commonly diagnosed malignancy and the second-leading cause of cancer-related deaths among men in Hawaii (American Cancer Society [ACS] Hawai'i Pacific, 2010). Each year, about 800 men in Hawaii are diagnosed with prostate cancer and more than 100 die from the disease. Among Hawaii residents, Filipino men are more likely to be diagnosed with advanced-stage prostate cancer and to experience lower survival rates than all other racial and ethnic subgroups (ACS Hawai'i Pacific, 2003). With repeated use of current prostate cancer screening techniques (prostate-specific antigen [PSA] blood test and digital rectal examination [DRE]), the majority of prostate cancers are detected at a clinically localized stage (Brawley, Ankerst, & Thompson, 2009). Therefore, a high rate of advanced-stage prostate cancer among an ethnic minority group may be indicative of low levels of participation in prostate cancer screening by members of that group. A qualitative approach was employed to explore the barriers and facilitators to prostate cancer screening among Filipino men residing in Hawaii. Because Filipino Americans constitute the second-largest and fastest-growing subpopulation of Asians residing in United States (Ghosh, 2003), and because limited information exists regarding the perceptions of prostate cancer and the barriers and facilitators to prostate cancer screening in this group, the information gained from this study will serve as a foundation for addressing an important disparity in health outcomes for this growing population.

Background

Stage at diagnosis is an important predictor of cancer survival. Nationally, the five-year relative survival rate for men diagnosed with localized prostate cancer approaches 100% (Jemal, Siegel, Xu, & Ward, 2010). In contrast, the five-year relative survival for men with metastatic prostate cancer is only 31% (Jemal et al., 2010). Among Hawaii residents, Filipino men (7.5%) are second

Purpose/Objectives: To examine perceptions, attitudes, and beliefs regarding barriers and facilitators to prostate cancer screening, and to identify potential interventional strategies to promote prostate cancer screening among Filipino men in Hawaii.

Design: Exploratory, qualitative.

Setting: Community-based settings in Hawaii.

Sample: 20 Filipino men age 40 years or older.

Methods: Focus group discussions were tape recorded and transcribed, and content analysis was performed for emergent themes.

Main Research Variables: Perceptions regarding prostate cancer, barriers and facilitators to prostate cancer screening, and culturally relevant interventional strategies.

Findings: Perceptions of prostate cancer included fatalism, hopelessness, and dread. Misconceptions regarding causes of prostate cancer, such as frequency of sexual activity, were identified. Barriers to prostate cancer screening included lack of awareness of the need for screening, reticence to seek health care when feeling well, fear of cancer diagnosis, financial issues, time constraints, and embarrassment. Presence of urinary symptoms, personal experience with family or friends who had cancer, and receiving recommendations from a healthcare provider regarding screening were facilitators for screening. Potential culturally relevant interventional strategies to promote prostate cancer screening included screening recommendations from healthcare professionals and cancer survivors; radio or television commercials and newspaper articles targeting the Filipino community; informational brochures in Tagalog, Ilocano, or English; and interactive, educational forums facilitated by multilingual Filipino male healthcare professionals.

Conclusions: Culturally relevant interventions are needed that address barriers to prostate cancer screening participation and misconceptions about causes of prostate cancer.

Implications for Nursing: Findings provide a foundation for future research regarding development of interventional strategies to promote prostate cancer screening among Filipino men.

only to Native Hawaiian men (9.5%) to be diagnosed with metastatic prostate cancer, followed by Caucasians (5.9%), Japanese (4.7%), and Chinese (3.3%) (ACS Hawai'i

Pacific, 2010). At the time of the study, Filipino men (24%) were more likely to have advanced prostate cancer at diagnosis than Native Hawaiians (22%) (ACS Hawai'i Pacific, 2003).

Early detection through screening is an important intervention to reducing ethnic disparity in morbidity and mortality from prostate cancer. The ACS recommends that healthcare providers discuss the benefits and limitations of prostate cancer screening with men age 50 or older who have a life expectancy of at least 10 years and who are at average risk of prostate cancer, and those men who indicate a preference for screening following this discussion should be offered an annual PSA test and DRE. Men at high risk, such as African Americans and men with a first-degree relative diagnosed with prostate cancer before age 65, should have this discussion with their healthcare provider beginning at age 45. In addition, men with two or more first-degree relatives diagnosed with prostate cancer before age 65 should have this discussion at age 40 (Smith, Cokkinides, & Brawley, 2009). Results of the 2008 Behavioral Risk Factor Surveillance System conducted in Hawaii revealed that, of all men interviewed age 40 and older, Filipino males were least likely to report ever having a PSA test (28%) and DRE (52%) performed as compared with other ethnic groups (Salvail, Nguyen, & Liang, 2008). That lack of participation in prostate cancer screening could provide a possible explanation as to why Filipino men are more likely to be diagnosed with advanced prostate cancer.

Reasons for the low participation in prostate cancer screening among Filipino men in Hawaii are unclear. To date, after conducting a thorough search using the PubMed, Cochrane, and CINAHL® databases, the authors found no published studies that have specifically examined the barriers, attitudes, and beliefs of Filipino men about prostate cancer screening. In studies conducted among African American men, barriers to participation in prostate cancer screening include "too many things going on in their lives," limited knowledge about the disease, lack of access to screening services, embarrassment associated with a DRE, fear of cancer diagnosis, and distrust of the government and medical professionals (Forrester-Anderson, 2005; McDougall, Adams, & Voelmeck, 2004; Meade, Calvo, Rivera, & Baer, 2003; Odedina et al., 2004). Whether these barriers are similar or different among Filipino men is unknown. Therefore, the purpose of this study was to examine the perceptions, attitudes, and beliefs of Filipino men in Hawaii regarding barriers and facilitators to prostate cancer screening, and to identify potential interventional strategies to promote prostate cancer screening among Filipino men.

Methods

Given the limited information available regarding the barriers and facilitators to prostate cancer screening among Filipino men, an exploratory qualitative design using focus groups was employed. The institutional review board (IRB) at the University of Hawai`i approved all study procedures and patient contact materials. Written consent forms were available in English and Ilocano. Each participant was able to choose the consent form written in the language they preferred. All participants selected and signed the English version of the consent form.

Sample, Setting, and Procedures

Filipino men aged 40 and older and residing in Hawaii were recruited to participate in focus groups. Exclusion criterion was self-reported history or current diagnosis of prostate cancer. Potential participants were recruited from churches, community centers, and various Filipino social and professional organizations using IRB-approved flyers, word of mouth, community outreach workers, and community nurses on two Hawaiian islands (Oahu and Kauai) to provide a broad geographic representation of the state's Filipino population.

A total of five focus groups were conducted, with each focus group consisting of three to six Filipino men. Each focus group session had at least two research staff members (a group leader and a recorder) present, and both bilingual research staff members were fluent in Ilocano or Tagalog and English. Participants were given the option to select the language (Ilocano, Tagalog, or English) in which the focus group sessions were to be conducted. Because of the different Filipino dialects spoken by the group participants, English was chosen as the preferred language to use during all five focus group sessions.

After explaining the study to the participants, written consent was obtained and a demographic questionnaire was completed by each participant. Participants were identified only by initials and code numbers to protect their confidentiality. The discussion in each focus group session was guided by a series of questions designed to elicit information regarding Filipino men's perceptions of prostate cancer and their awareness of prostate cancer screening, to identify cultural factors that may represent barriers or facilitators to prostate cancer screening, and to identify potential interventions that would increase awareness and promote prostate cancer screening among Filipino residents of Hawaii (see Figure 1). In addition, following each focus group session, participants had the opportunity to take part in a question and answer session regarding prostate cancer in which the group leader provided factual information on prostate cancer screening, risk factors for prostate cancer, and health promotion strategies known to be associated with decreased risk of prostate cancer (e.g., lycopene in the diet, avoidance of obesity). Each session lasted between one and two hours. Each participant **Specific Aim 1:** Identify Filipino men's perceptions of prostate cancer and awareness regarding prostate cancer screening.

- What do people think about prostate cancer?
- What can be done to prevent prostate cancer?
- How can prostate cancer be screened and detected early?

Specific Aim 2: Identify cultural factors (barriers and motivators) among Filipino men regarding prostate cancer screening.

- Have you been checked for prostate cancer?
- What reasons or things would prevent or stop you from getting a checkup for your prostate? How come people don't get a checkup for their prostate?
- For what reasons would you seek screening services (checkups)?

Specific Aim 3: Identify interventions that Filipino men believe could assist healthcare providers with promoting and increasing prostate cancer screening.

- What is the best way for you to learn about prostate cancer screening? How would you like to learn about prostate cancer screening?
- Would you rather learn in a group or individual sessions?

Figure 1. Focus Group Questions

received \$25 in compensation for their time. All sessions were tape recorded and transcribed verbatim.

Data Analysis

Descriptive statistics were used to report participant characteristics. Content analysis was performed manually by each member of the research team. Transcripts were reviewed multiple times by five members of the research team and recurring phrases or concepts from the transcripts were identified and labeled with codes (topic coding). Similar concepts were then grouped into categories (analytic coding). The data were then analyzed for emerging themes using the identified concepts and categories (Richards & Morse, 2007). Results of the analysis were compared, as were the interpretations of the individual team members. In addition, data were periodically reviewed by the researchers and 5 of the 20 participants in an interactive process to ensure accuracy of the analysis and to provide a mutually agreed-upon final analysis.

Results

Participants (N = 20, \overline{X} age = 56, SD = 8 years) were all Filipino males, age 40 or older, residing in Hawaii, who had no history of prostate cancer (see Table 1).

Data were clustered into four topical areas for analysis (perceptions of prostate cancer, barriers to prostate cancer screening, facilitators to prostate cancer screening, and ideas for interventions to promote prostate cancer screening among Filipino men in Hawaii) based on the questions used to guide the focus group discussions. Within each of these four topical areas, numerous concepts were identified. Related concepts were grouped

into categories, assisting in the identification of emerging overarching themes.

Perceptions of Prostate Cancer

Negative beliefs and attitudes: When asked to share their thoughts regarding cancer in general, at least some participants in each group expressed a sense of fatalism: "Cancer is like a death sentence;" some also described fear or dread, and others described hopelessness: "It's the deeper way the person thinks when he or she hears that 'I have cancer.' . . . For example, 'I just can't live anymore because I have this,'" and isolation: "They just isolate themselves and wait until death." Some described medical treatment for cancer as too expensive and futile: "The medical expense is so high and you die anyway, so what's the use," and something to be feared: "Even if there [is] some treatment, even the treatment itself is kind of ... people fear it, you know? Because it's like you say, those people been treated for cancer and because, like, they have them go through much pain and suffering." Others expressed concern that people who have cancer, particularly males who are heads of households, are a burden to their families: "[As] the head of the family, you're supposed to be supporting the children; not them supporting you. So sometimes they say, 'So be it, I'll die.'" First-generation Filipinos were described as

Table 1. Participant Characteristics			
Characteristic	X	SD	
Age (years)	56	8	
Length of residency in United States (years)	23	11	
Characteristic	n	%	
Filipino ethnicity	20	100	
Marital status			
Single, never married	1	5	
Married	18	90	
Living together or not married	1	5	
Education			
High school degree	1	5	
Some college or trade school	2	10	
College degree	14	70	
Graduate degree	3	15	
Religious denomination			
Catholic	15	75	
Protestant	3	15	
Jehovah's Witness	1	5	
Unknown	1	5	
Has medical insurance	20	100	
Hawaiian island residency			
Oahu ,	14	70	
Kauai	3	15	
Molokai	2	10	
Maui	1	5	
N = 20			

particularly likely to have a fatalistic attitude toward cancer: "If you're the first generation or you just came from the Philippines, and you just arrive here and you get the cancer, your mentality will be, it's depressing. There's no cure, nothing," whereas second-generation Filipinos were described as more knowledgeable and aware of treatment and resources: "The next generation after that, the kids who are growing here, they have more knowledge of the insurance that the people just won't give up," and were more likely to believe that cancer is potentially curable: "Most of the cancer used to be death sentence, but not anymore because it can be cured. A lot of cancers can be cured because of the technologies," particularly with early detection: "I also heard that there's a cancer of the prostate and they said that it's curable if detected early."

Lack of knowledge: Lack of information regarding cancer was described as a particular issue for first-generation Filipinos: "Filipinos are . . . we're low in information because of education," who may ignore information: "Yeah, and the first information about this kind of stuff . . . they just ignore it," as a result of a fatalistic attitude associated with cancer: "They don't want to talk about death." Second-generation Filipinos were described as having improved access to information, which is facilitated by access to computers: "Generations after that, it's more advanced . . . especially at this age that we can go to the Internet."

Misinformation regarding causes: Several participants expressed the belief that prostate cancer was caused by the frequency of sexual activity. Some thought that prostate cancer was caused by excessive sex or promiscuous behavior: "Oversexed," "Prostate cancer, that's what you get because you're a playboy, yeah," and may be considered by some as punishment: "It's kind of a curse. Because . . . they are promiscuous," whereas others voiced that prostate cancer may be related to lack of sex: "Too little or no sex at all, like how you get kidney stones when you don't pee. If you don't release, the fluid inside gets hard." Other misinformation regarding the causes of prostate cancer included urinary retention, contamination: "When the thing is contaminated or something, or becomes enlarged," stress: "Stress has some connection to that," culture: "I think it may be cultural," and heavy lifting: "Some people say that the cause the enlargement you're lifting too much stuff." Some participants indicated that they had no knowledge regarding the etiology: "Honestly, I don't know the causes of prostate cancer."

Risk factors: Risk factors for prostate cancer identified by participants included family history: "Some of the cancer is like it's in the family. You can inherit," age: "I think as you age your body breaks down," diet: "I think it's also in what you eat," excessive alcohol, and being overweight: "One thing about cancer, overweight people get the most."

Beliefs about cancer prevention: Participants identified diet and exercise as playing an important role in cancer prevention: "Live a healthier life to prevent it." Specific foods were identified as helping to prevent cancer, including tomatoes (identified by one participant as containing lycopene), fish, and vegetables. Participants also identified education: "I guess it's just education of the public," and regular checkups: "I think that men have checkup every year," as important cancer prevention strategies.

Barriers to Prostate Cancer Screening

Barriers to prostate cancer screening identified by participants included lack of awareness of the need for screening: "There's no awareness of prostate disease," reticence to seek health care when feeling well: "Filipinos are by nature, like, they don't really go to see a doctor just for the sake of having a checkup," "The only time when I go and see a doctor is when I really feel sick already," postponing health care: "Even though the doctor tells them to go and have some kind of examination. Then they just . . . postpone and postpone until . . . Filipino mentality," fear of being diagnosed with cancer and fear of death: "Because I'm scared to know," "You're scared to die," financial issues, time constraints for the patient, and the healthcare provider: "Because the doctor only sees them for three seconds," religious beliefs: "Some kind of religious belief . . . that if that's how God wants him to do then," and embarrassment: "Really embarrassing especially if the assistant is a woman." Some participants stated there was no reason not to be screened: "There's no reason why to stop me. If I need to go, I would go." Self-reported history of prostate cancer screening of the study participants is shown in Table 2.

Facilitators to Prostate Cancer Screening

Facilitators to prostate cancer screening identified by participants included the presence of urinary symptoms, such as frequency, hesitancy, nocturia, and urinary retention: "They will see the doctor because they have something . . . they wanted to be checked. That's more of a Filipino mentality," concern regarding kidney failure: "Sometimes you are thinking about kidney failure, too," having appropriate information: "You know what to ask," having an established relationship with a healthcare provider: "I visit my doctor regularly . . . so just like we have a very open dialogue . . . we discuss," having regular checkups: "go to the doctor regularly and be tested," and receiving recommendations from a healthcare professional regarding screening: "Most Filipinos are mind followers. If the doctor will say have to do it," "I go check my prostate every year. My doctor advised me to."

Table 2. Participant Self-Reported Prostate Cancer Screening History

Characteristic	n	%
Ever screened for prostate cancer?		
Yes	10	50
No	8	40
No response	2	10
Reason for screening		
Healthcare provider recommendation	2	20
Symptoms	1	10
Family history	1	10
Patient requested screening.	1	10
No reason given	5	50
Reason for not screening		
Healthcare provider did not recommend.	2	25
No reason given	6	75
N = 20		

N = 20

Recommendations for Interventions to Promote Prostate Cancer Screening

Participants shared several ideas regarding potential interventional strategies to promote prostate cancer screening among Filipino men in Hawaii. Lack of awareness of the need for screening was identified as a significant barrier that could potentially be overcome using multiple strategies, including recommendations for screening by credible authorities, such as employers: "Because a lot of us work and so you know they should check. They should, 'hey, you guys, have this test, make sure you get it," and health plans: "The insurance . . . you have to get this test and stuff. I think that would spread the word," and the inclusion of information at Filipino community events and health fairs. Informational sessions with professional facilitators, similar to the focus group setting, also were suggested as potentially helpful in promoting screening: "Like set up some discussions like we have now," and most participants voiced a preference for group meetings rather than one-on-one consultations: "It's actually better in a group. Some people have different experiences. They can share," preferably led by a Filipino male: "It's a male part that a woman doesn't have. So it's better male," who is a healthcare professional fluent in various Filipino dialects: "Filipino that can speak our language."

Participants also suggested development of simple brochures: "Just specific symptoms. Very simple," television and radio commercials, and newspaper articles regarding prostate cancer screening targeted to the Filipino community and distributed over Filipino media, such as cable channels and newspapers. Suggestions for commercial messages included a prostate cancer survivor, possibly a celebrity: "Even this guy is famous but he caught cancer and he was cured," or an everyday person: "A prostate cancer survivor... and they're not ashamed," a grandfather and grandson: "Maybe some

people, 'oh, I'm already 65 and already 70, like I enjoyed life. So what if I died tomorrow.' So maybe you can add something. 'Hey, think about your grandchildren. Have more time to enjoy with your grandchildren,' yeah," and a Filipino physician: "We all Filipinos . . . the doctor is Filipino, not different nationality." Participants voiced that the messages should be made available in Ilocano, Tagalog, and English: "You want to cater to more people, why not translate it to the different common languages," possibly combining more than one language on a single brochure: "one side is English and one side is Illocano. Or one English and in the bottom Ilocano."

Discussion

The high rates of advanced-stage prostate cancer among Filipino men in Hawaii underscore the importance of understanding the barriers and facilitators to prostate cancer screening for this growing subpopulation. Several key items emerged as important considerations in planning potential interventions to improve adherence to prostate cancer screening among Filipinos in Hawaii.

Factors that should be taken into consideration in planning and developing these interventions include perceptions about prostate cancer (particularly the fatalistic beliefs held by most first-generation Filipinos), and the barriers and facilitators to prostate cancer screening identified by the study participants. For example, participants identified that a recommendation from a healthcare provider was a powerful facilitator for prostate cancer screening. In a study of predictors of cancer screening among Filipino and Korean immigrants in the United States (Maxwell, Bastani, & Warda, 2000), having ever had a medical checkup when no symptoms were present was identified as the strongest predictor of cancer screening, and this predictor was stronger among Filipino than Korean immigrants, suggesting that Filipinos are either more likely to get a recommendation for cancer screening at a health checkup or are more likely to follow through with recommended screening. Either conclusion supports the important role of the healthcare provider in facilitating cancer screening among Filipinos. Therefore, consideration should be given to developing interventions to increase awareness among healthcare professionals regarding the importance of their role in facilitating prostate cancer screening among Filipino males in Hawaii. In addition, the other variable consistently associated with adherence to cancer screening in the Maxwell et al. (2000) study was percent of lifetime spent in the United States, with increased adherence associated with increased time spent in the U.S. This points to the potential need to develop differing interventional strategies for first-versus second-generation Filipinos.

Participants also identified the potential usefulness of community forums and group information sessions led by Filipino healthcare providers and of the distribution of educational brochures written in Tagalog, Ilocano, or English in increasing awareness of the need for prostate cancer screening among Filipino males in Hawaii. The potential role of peer interaction fostered by community meetings and information sessions could be facilitated by community action groups, such as the Asian American Network for Cancer Awareness, Research, and Training. Other potential interventional strategies include development of radio and television commercials featuring prostate cancer survivors who are Filipino celebrities or even average Filipino people who have survived prostate cancer.

Several barriers to prostate cancer screening that emerged from the data in the study, such as lack of awareness and knowledge, negative beliefs and fears, and seeking health care only when symptoms appear, are similar to those that have been identified in other ethnic and racial minority groups, such as African Americans and Hispanics (Forrester-Anderson, 2005; McFall, Hamm, & Volk, 2006; Meade et al., 2003). In addition, some of the potential interventional strategies, such as group discussions, television and radio advertising, newspaper articles, and involvement of employers in dissemination of information, also have been previously identified as potential strategies for other minority ethnic groups (McFall et al., 2006; Meade et al., 2003). However, several issues unique to Hawaii's Filipino population also were identified, such as male heads of households with cancer being considered a burden to their families, and the tendency to postpone recommended health care, dubbed the "Filipino mentality."

Another potential barrier is the controversy over the use of PSA testing for routine screening. A shift toward a lower stage of disease found at diagnosis and the improvement in mortality rates are evidence supporting the effectiveness of PSA testing. Prior to the use of PSA testing, 37% of newly diagnosed men had cancer localized to the prostate and 23% had metastatic disease (ACS, 1985). More than 80% of these men now have localized disease at diagnosis and only 4% have metastatic disease (National Cancer Institute [NCI], 2008). Prostate cancer mortality rate has decreased by an average of 4% each year since 1994 (NCI, 2008). Evidence from statistical modeling studies also have shown that PSA testing has played a role in the declining rate of prostate cancer mortality (Etzioni et al., 2008; Feuer, Etzioni, Cronin, & Mariotto, 2004). However, these conclusions have not been supported in all studies. A randomized trial of prostate cancer screening with PSA testing, the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial, found no significant difference in mortality rates between participants who were screened and those who were not after 7–10 years of follow-up (Andriole et al., 2009). Similarly, in the European Randomized Study of Screening for Prostate Cancer, results showed that although a 20%

reduction in mortality rate from prostate cancer occurred, men screened with PSA testing had an increased risk of overdiagnosis (Schröder et al., 2009). Overdiagnosis is the detection of disease that would not have become clinically significant (Brawley et al., 2009). Overdiagnosis may expose patients to harm or side effects from unnecessary diagnostic tests and treatments that could affect their quality of life. Potential harms include anxiety from false-positive results, infection, erectile dysfunction, bowel issues, and urinary incontinence (Wilt et al., 2008). Therefore, whether prostate cancer screening results in more benefit than harm is unclear.

Given the controversy regarding PSA screening, clinicians caring for men should provide information on potential benefits and risks of prostate cancer screening. Multiple factors, such as patient age, family history, ethnicity and the higher rate of metastatic disease at diagnosis among Filipino men, comorbidities, and the risks of overdetection and overtreatment should be included in this discussion to maximize informed decision making.

Since the completion of this study, new Hawaii data indicate an improvement in the stage of disease at diagnosis among Filipino men and all other racial groups (ACS Hawai'i Pacific, 2010). Possible explanations for this improvement include increased public awareness and participation in prostate cancer screening. However, despite the increase in early-stage diagnosis, Filipino men continue to have the highest mortality rates from prostate cancer as compared to Native Hawaiians, Japanese, Chinese, and other ethnic minority groups in Hawaii. The reason for the ethnic disparity in mortality rates is likely multifactorial. Future studies are needed to examine the impact of sociodemographic factors, economic status, and tumor biology on mortality outcomes among Filipino men.

Limitations

Study participants consisted of a small convenience sample of Filipino men residing in Hawaii drawn from churches, community centers, and various Filipino social and professional organizations and may not be representative of the larger population of Filipino male residents of Hawaii. In addition, males volunteering to participate in a focus group regarding prostate health may be overly representative of those willing to talk about sensitive issues in a group situation and, therefore, the data gathered may not reflect the full spectrum of barriers and facilitators to prostate screening present among Filipino men in Hawaii. The range of potential interventions also may not be fully representative of those interventions most appropriate for the entire population of Filipino males living in Hawaii. Strengths of the study include the inclusion of participants from four of the seven inhabited Hawaiian islands, conduct of the focus groups in the participants' preferred language, and confirmation of some emerging themes with studies in other ethnic and racial minority groups.

Conclusions

In summary, many of the barriers and facilitators to prostate cancer screening identified in this study are similar to those that have been identified in other ethnic and racial minority groups. However, the study also contributes some novel information regarding the barriers and facilitators to prostate cancer screening among Filipino men in Hawaii. The results suggest several potential culturally appropriate interventions to promote prostate cancer screening among Filipino men residing in Hawaii, including targeted education for Filipino healthcare providers regarding the importance of their role in facilitating screening. Although some findings presented here are consistent with those from other minority groups and others appear to represent newly identified knowledge, these results were drawn from a small sample and should be considered preliminary.

Nursing Implications

Findings of this study contribute to nursing science by identifying new information regarding knowledge and perceptions of prostate cancer, and barriers and facilitators to prostate cancer screening among Filipino men residing in Hawaii, thus providing a foundation for future research. Information elicited from this study may help nurses and other healthcare providers to design and develop effective, culturally sensitive interventions that could promote awareness and participation in prostate cancer screening among Filipino men in Hawaii and also could potentially contribute to the reduction in health disparities currently seen in this group.

Francisco A. Conde, APRN, PhD, AOCNS®, is an oncology clinical nurse specialist at the Queen's Cancer Center in Honolulu, HI; Wendy Landier, RN, PhD, CPNP, CPON®, is the clinical director of the Center for Cancer Survivorship at the City of Hope Comprehensive Cancer Center in Duarte, CA; Dianne Ishida, APRN, PhD, is an associate professor, and Rose Bell, RN, NP-C, MSN, is a doctoral student, both in the School of Nursing at the University of Hawai`i in Honolulu; Charlene F. Cuaresma, MPH, is a project director at the Asian American Network for Cancer Awareness, Research, and Training in Honolulu; and Jane Misola, RN, PhD, is an instructor in the School of Nursing at the University of Hawai`i in Honolulu. This research was supported by a National Institutes of Health research grant (P20 NR008360) funded by the National Institute of Nursing Research and the National Center for Minority and Health Disparities. Conde can be reached at fconde@queens.org, with copy to editor at ONFEditor@ons .org. (Submitted September 2009. Accepted for publication March 1, 2010.)

Digital Object Identifier: 10.1188/11.ONF.227-233

References

American Cancer Society. (1985). Cancer statistics, 1985. Atlanta, GA: Author.

American Cancer Society Hawai'i Pacific. (2003). *Hawai'i cancer facts and figures* 2003. Honolulu, HI: Author.

American Cancer Society Hawai'i Pacific. (2010). *Hawai'i cancer facts and figures* 2010. Honolulu, HI: Author.

Andriole, G.L., Crawford, E.D., Grubb R.L., III, Buys, S.S., Chia, D., Church, T.R., . . . Berg, C.D. (2009). Mortality results from a randomized prostate-cancer screening trial. *New England Journal of Medicine*, 360, 1310–1319. doi: 10.1056/NEJMoa0810696

Brawley, O.W., Ankerst, D.P., & Thompson, I.M. (2009). Screening for prostate cancer. *CA: A Cancer Journal for Clinicians*, *59*, 264–273. doi: 10.3322/caac.20026

Etzioni, R., Tsodikov, A., Mariotto, A., Szabo, A., Falcon, S., Wegelin, J., . . . Feuer, E. (2008). Quantifying the role of PSA screening in the US prostate cancer mortality decline. *Cancer Causes and Control*, *19*, 175–181. doi: 10.1007/s10552-007-9083-8

Feuer, E.J., Etzioni, R., Cronin, K.A., & Mariotto, A. (2004). The use of modeling to understand the impact of screening on U.S. mortality: Examples from mammography and PSA testing. Statistical Methods in Medical Research, 13, 421–442. doi: 10.1191/0962280204sm376ra

Forrester-Anderson, I.T. (2005). Prostate cancer screening perceptions, knowledge and behaviors among African American men: Focus group findings. *Journal of Health Care for the Poor and Underserved*, 16(4, Suppl. A), 22–30. doi: 10.1353/hpu.2005.0122

Ghosh, C. (2003). Healthy People 2010 and Asian Americans/Pacific Islanders: Defining a baseline of information. *American Journal of Public Health*, 93, 2093–2098. doi: 10.2105/AJPH.93.12.2093

Jemal, A., Siegel, R., Xu, J., & Ward, E. (2010). Cancer statistics, 2010.
CA: A Cancer Journal for Clinicians, 60, 277–300. doi: 10.3322/caac.20073

Maxwell, A.E., Bastani, R., & Warda, U.S. (2000). Demographic predictors of cancer screening among Filipino and Korean immigrants in the United States. *American Journal of Preventive Medicine*, 18(1), 62–68. doi: 10.1016/S0749-3797(99)00110-5

McDougall, G.J., Jr., Adams, M.L., & Voelmeck, W.F. (2004). Barriers to planning and conducting a screening: Prostate cancer. *Geriatric Nursing*, 25, 336–340. doi: 10.1016/j.gerinurse.2004.09.003

McFall, S.L., Hamm, R.M., & Volk, R.J. (2006). Exploring beliefs about prostate cancer and early detection in men and women of three ethnic groups. *Patient Education and Counseling*, 61(1), 109–116.

Meade, C.D., Calvo, A., Rivera, M.A., & Baer, R.D. (2003). Focus groups in the design of prostate cancer screening information for Hispanic farmworkers and African American men. *Oncology Nursing Forum*, 30, 967–975. doi: 10.1188/03.ONF.967-975

National Cancer Institute. (2008). SEER cancer statistics review, 1975 -2006. Retrieved from http://seer.cancer.gov/csr/1975_2006/results_merged/sect_23_prostate.pdf

Odedina, F.T., Scrivens, J., Emanuel, A., LaRose-Pierre, M., Brown, J., & Nash, R. (2004). A focus group study of factors influencing African-American men's prostate cancer screening behavior. *Journal of the National Medical Association*, 96, 780–788.

Richards, L., & Morse, J.M. (2007). README FIRST for a user's guide to qualitative methods (2nd ed.). Thousand Oaks, CA: Sage.

Salvail, F.R., Nguyen, D., & Liang, S. (2008). State of Hawaii by demographic characteristics Behavioral Risk Factor Surveillance System. Retrieved from http://hawaii.gov/health/statistics/brfss/ brfss2008/demo08.html

Schröder, F.H., Hugosson, J., Roobol, M.J., Tammela, T.L., Ciatto, S., Nelen, V., . . . Auvinen, A. (2009). Screening and prostate-cancer mortality in a randomized European study. New England Journal of Medicine, 360, 1320–1328.

Smith, R.A., Cokkinides, V., & Brawley, O.W. (2009). Cancer screening in the United States, 2009: A review of current American Cancer Society guidelines and issues in cancer screening. CA: A Cancer Journal for Clinicians, 59, 27–41. doi: 10.3322/caac.20008

Wilt, T.J., MacDonald, R., Rutks, I., Shamliyan, T.A., Taylor, B.C., & Kane, R.L. (2008). Systematic review: Comparative effectiveness and harms of treatments for clinically localized prostate cancer. *Annals of Internal Medicine*, 148, 435–448.