

Knowledge, Attitudes, Beliefs, and Practices Regarding Breast and Cervical Cancer Screening in Selected Ethnocultural Groups in Northwestern Ontario

Darlene Steven, RN, PhD, Margaret Fitch, RN, PhD,
Harbhajan Dhaliwal, MB, ChB, MD (UK), FRCP, Rhonda Kirk-Gardner, RN, MScN,
Pat Sevean, RN, MA, EdD(Cand), John Jamieson, MA, PhD, and Heather Woodbeck, RN, BScN

Purpose/Objectives: To examine the knowledge, attitudes, beliefs, and practices regarding breast and cervical cancer screening in selected ethnocultural groups (i.e., Italian, Ukrainian, Finnish, and the native population) in Northwestern Ontario, Canada.

Design: Descriptive, exploratory.

Setting: Rural and urban settings in Northwestern Ontario.

Sample: 105 women aged 40 and older who were residents of Northwestern Ontario and members of selected ethnic groups, including Italian, Ukrainian, Finnish, Ojibwa, and Oji-Cree.

Methods: An interview guide was designed specifically for this study to gather information regarding knowledge, attitudes, beliefs, and practices about breast self-examination (BSE), clinical breast examination (CBE), mammography, and cervical cancer screening procedures. Data were obtained through face-to-face interviews (two or three hours) in English or the language spoken. Interviews in other languages were transcribed into English.

Findings: Ojibwa and Oji-Cree women were more likely than any other group to not have practiced BSE, to have refused CBE or mammogram, to not have been told how to perform BSE, to not have received written information about breast examination, and to be uncomfortable and fearful about cervical cancer screening procedures (33% refused internal examination as compared to 0–8% in the other ethnic groups). Four issues emerged from the findings: (a) using multimedia sources to inform women about screening programs, (b) educating women regarding breast and cervical cancer screening, (c) reminding women when they are due for screening, and (d) identifying that Pap tests are uncomfortable and frightening.

Conclusions: Cultural beliefs, attitudes, and practices of marginal populations (e.g., native women) are important to consider when developing strategies to address barriers to effective breast and cervical screening.

Implications for Nursing: Educational programs that are culturally sensitive to participants are imperative.

Breast and cervical cancer are considered significant healthcare issues for Canadian women, regardless of race or ethnicity. Recent research continues to emphasize that they are a concern for women in all countries (Burchanstanov, Dignan, Wound, Tenney, & Vigil, 2000; Giveon & Kahan, 2000). The prevalence of breast cancer is rising slowly in Canada; one woman in nine will develop the disease in her lifetime (National Cancer Institute of Canada, 2003). The National Cancer Institute of Canada estimated

Key Points . . .

- ▶ Breast and cervical cancer are significant healthcare issues for Canadian women, regardless of race or ethnicity.
- ▶ Limited research has been conducted surrounding barriers to effective screening with marginal populations such as native women.
- ▶ Healthcare professionals need to be educated regarding cultural sensitivity, including knowledge of and attitudes about specific cultural groups.
- ▶ Nurse researchers need to address compliance and the cost-effectiveness of screening programs.

1,345 new cases of invasive cervical cancer in 2003. The incidence of cervical cancer is slowly declining from 1,450 cases in 2000, and this lower rate may be attributed to population-based screening programs.

Limited research has examined the barriers to cancer screening faced by Canada's minority populations (Panel on Cancer and the Disadvantaged, 1991). Ethnocultural groups

Darlene Steven, RN, PhD, is a professor in the School of Nursing and graduate coordinator of master's of public health at Lakehead University in Thunder Bay, Ontario, Canada; Margaret Fitch, RN, PhD, is coordinator of supportive care at Cancer Care Ontario in Toronto; Harbhajan Dhaliwal, MB, ChB, MD (UK), FRCP, is president and chief executive officer of Cancer Care Manitoba in Winnipeg; Rhonda Kirk-Gardner, RN, MScN, is a professor in the School of Nursing, Pat Sevean, RN, MA, EdD(Cand), is an assistant professor in the School of Nursing, and John Jamieson, MA, PhD, is a professor in the Department of Psychology, all at Lakehead University; and Heather Woodbeck, RN, BScN, is regional coordinator of the Northwestern Ontario Breast Screening Program and director of prevention at Northwestern Ontario Regional Cancer Centre in Thunder Bay. This research was funded by the Northern Ontario Health Research Program. (Submitted September 2002. Accepted for publication January 28, 2003.

Digital Object Identifier: 10.1188/04.ONF.305-311

need education on attitudes, beliefs, and practices for breast and cervical cancer screening to increase their participation in cancer screening programs. Fitch et al. (1997a, 1997b) investigated knowledge, attitudes, and beliefs of older adults toward cancer as a step in developing early-detection and cancer-prevention programs for older adults. The researchers concluded that an understanding of the attitudes and knowledge within this population was essential and that the information collected would help to design programs to meet the special needs of older adults, minority populations, and ethnocultural groups.

Vellozzi, Romans, and Rothenberg (1996) also encouraged researchers to develop awareness of their target groups. They found that not all preventive cancer strategies were successful with all women in underserved areas. Older women appeared to benefit from the use of mobile units. Vellozzi et al. suggested that programs should employ strategies best suited to their target populations.

Bakker, Lightfoot, Steggle, and Jackson (1998) assessed women's satisfaction and experiences with breast cancer screening programs. Results suggested that asymptomatic women in the community who were satisfied with their experiences at the breast screening clinics tended to return to the clinics at recommended intervals and promote the clinic to their peers. The authors suggested that satisfaction with the screening experience is an integral strategy to enhance participation in screening programs.

Breast and cervical cancer are well recognized as significant causes of mortality and morbidity among Canadian women. National data reveal that screening rates for these types of cancer are lower among certain populations of women. Many reasons have been postulated, but further research is required to identify demographic factors and environmental and cultural practices that affect acceptance of and participation in preventive practices, especially among ethnocultural groups of women aged 40 and older.

The purposes of this study were to (a) examine the knowledge, attitudes, beliefs, and practices regarding breast and cervical cancer screening in selected ethnocultural groups (i.e., Italian, Ukrainian, Finnish, Oji-Cree, and Ojibwa populations in Northwestern Ontario), (b) identify specific barriers to cancer screening that exist in these selected ethnocultural groups, and (c) recommend strategies to overcome these barriers.

Literature Review

Breast Cancer

Age has been identified repeatedly as the greatest risk factor for developing breast cancer in women 50 years of age and older (Petersen & Fieler, 2000). Ruffin, Gorenflo, and Woodman (1999) identified that some individuals were not maintaining acceptable early-detection regimens for breast and cervical cancer. Choudhry, Srivastava, and Fitch (1998) recognized that most research to identify breast self-examination (BSE) and screening practices had been directed toward Caucasian women. A paucity of literature has addressed minority groups, such as immigrant, Ojibwa, and Oji-Cree women and other selected groups.

Several investigators have assessed attitudinal variables, including susceptibility, seriousness, benefits, barriers, health motivation, control, confidence, and knowledge and their re-

lationships to BSE participation (Burhansstipanov et al., 2000; Champion, 1992; Champion & Menon, 1997; Champion, Rawl, & Menon, 2002). Limited data exist regarding the barriers to BSE practices and the overall breast health of Canada's various ethnocultural groups. Burhansstipanov et al. evaluated Native American women's perceptions of mammography participation and found that women voiced concerns about financial impact, lack of confidentiality, confusion in large healthcare agencies, and fears of the diagnosis of breast cancer following screening.

In the study by Burhansstipanov et al. (2000), poverty consistently was reported to be the primary barrier, but when barriers related to poverty (e.g., child care, transportation, screening costs) were addressed, no increase occurred in screening participation, which required researchers to talk more with potential participants to learn what they needed and wanted to enhance screening participation. Through discussions with women who had participated or were planning to participate, psychosocial and sociocultural barriers also appeared to be significant. For example, one older woman said that she could not participate in screening because she did not have transportation. When transportation was arranged, the woman responded with another excuse. Further discussion revealed that she believed that her participation in screening "invited the cancer spirit to enter one's body" (p. 31).

Cervical Cancer

Fitch, Greenberg, Cava, Spaner, and Taylor (1998) conducted a study in North York, Canada, regarding barriers to cervical cancer screening among low-income women. The qualitative study was aimed at distinguishing barriers to cervical screening, participants' concerns regarding cervical cancer, and suggestions and strategies from the participants' perspectives. A focus group format was used to promote group discussion and questions. Eleven focus groups were formed with a total of 110 participants. The researchers identified four themes: (a) being able to talk with doctors is important, (b) being treated as a person is important, (c) finding answers to many questions about cancer is important, and (d) having a Pap test is uncomfortable.

In Canada, native women have been shown to have a higher incidence of cervical cancer than the rest of the population (Band et al., 1992; Clarke et al., 1998; Hislop, Deschamps, Band, Smith, & Clarke, 1992). Band et al. determined that native women in British Columbia had a four to six times higher mortality rate from cancer of the cervix than women in the general population. These women used screening irregularly and less frequently than other women in British Columbia. Studies of native women in the United States have had similar findings. Specifically, the incidence of cervical cancer is high in this population (Coughlin, Uhler, & Blackman, 1999; Lanier, Kelly, & Holck, 1999; Risendal, DeZapien, Fowler, Papenfuss, & Giuliano, 1999; Solomon & Gottlieb, 1999).

Solomon and Gottlieb (1999) explored the relationship between traditionality (i.e., culture and attitudes) and screening for cervical cancer. Their sample was comprised of 199 Native American women aged 18–40 who were living in north-eastern Oklahoma. The sample was divided into two groups by age: 62% (n = 123) were 18–29 years of age, and about 38% (n = 76) were 30–40 years of age. A questionnaire was used to assess (a) intentions to participate in cervical cancer

screening, (b) level of participation in tribal cultural practices, (c) behavioral risk factors, and d) demographic data. Traditionality was measured by assessing the amount of American Indian blood in their heritage. Results indicated that Pap test compliance was lower among women with higher traditionality scores, but traditionality did not affect intentions to seek screening measures. The authors noted a possible contradiction between self-reports of intention and actual compliance with screening.

The conceptual framework for the current research is based on the model developed by Miller, Shoda, and Hurley (1996). The Model of Cognitive/Social Health Information Processing (C-SHIP) is comprised of five components: health-relevant encodings, health beliefs and expectancies, affects, health goals and values, and self-regulatory competencies and skills for generating and maintaining health-protective behavior. This model can be adapted to ethnocultural populations and has been applied in previous studies of BSE and screening to identify and enhance the screening process and intervention strategies for specific populations (see Figure 1).

Methods

Sample

The proposal was submitted to the ethical review board of Lakehead University, Thunder Bay, Ontario, Canada. The study was designed to investigate a convenience sample of 105 women aged 40 years and older. All of the participants were residents of Northwestern Ontario and belonged to one of the selected ethnic groups: Italian, Ukrainian, Finnish, Ojibwa, or Ojibwa. A snowball sampling approach was used for

Strategies and constructs for recognizing self in various situations with regard to health and wellness, health risks, vulnerabilities, illness, and disease

Health beliefs and expectancies: activation of specific beliefs and expectations in health-information processing. Includes expectancies about outcomes (e.g., subjective likelihood of developing breast cancer based on genetic pedigree or lung cancer from smoking) and self-efficacy expectancies (e.g., for adhering to regular breast self-examination (BSE) and for giving up tobacco)

Affects: affective states activated in health-information processing (e.g., anxiety, depression, hopefulness, negative feelings about self, irritability, anger)

Health goals and values: desired and valued health outcomes and states and their subjective importance (e.g., having healthy breasts is critical) and goals for health-relevant life projects (e.g., dieting, exercising regularly)

Self-regulatory competencies and skills for generating and maintaining health-protective behavior: knowledge and strategies for dealing with specific barriers to health-protective behaviors and for construction and maintenance of health-protective behaviors (e.g., skills required for proficient BSE)

Long-term adherence to breast cancer screening programs such as BSE requires a complex array of self-regulatory skills, and the C-SHIP model suggests a number of specific intervention strategies for buttressing them. They include self-cuing (reminders), self-reinforcement (external rewards), and the use of balanced mental representation (engage in appropriate problem solving).

Figure 1. Model of Cognitive/Social Health Information Processing (C-SHIP)

Note. Based on information from Miller et al., 1996.

the study because of its usefulness in identifying individuals who met the eligibility criteria. After being interviewed, the initial participants in each ethnic group provided the names of other women interested in participating until at least 25 individuals from each ethnic group were interviewed.

Research Design

The study was both quantitative and qualitative in nature. A specific questionnaire was developed for a guided interview. Quantitative questions included sociodemographics and general health behaviors (e.g., smoking, nutrition, coffee and alcohol intake, activity, preventive screening, contraceptive use, hormone replacement therapy [HRT] use, pregnancy and lactation, sexual activity). Qualitative data were obtained regarding breast cancer, breast examinations, mammography, cervical cancer, and Pap tests. An expert committee reviewed the instrument for content validity. A pilot study was conducted as to the appropriateness of the tool for ethnic populations. Ten women in each group completed the questionnaire at two different intervals (test-retest). The instrument was deemed to be reliable.

Five research assistants with backgrounds in nursing and fluency in one of the languages spoken by participants were recruited to conduct interviews. At the training sessions, the objectives and procedures of the study were reviewed. The assistants were counselled about effective interviewing skills as well as administration of the questionnaire. In addition, the research assistants were provided with basic information about breast and cervical health.

Prior to data collection, a research assistant read to participants an information letter that explained the objectives and procedures of the study; both parties signed informed consent. Each interview lasted about two or three hours and was conducted in the participant's home at her convenience. When English was not the language of choice of the participant, the interview was conducted in the participant's chosen language. All interviews were audiotaped, and the confidentiality and security of data were emphasized, as was the volunteer's option to withdraw from the study at any time. If an audiotape was in another language, another translator validated the transcription.

Data Analysis

The research assistants transcribed and translated the interviews. Language experts listened to the tapes and ensured that interpretations were conducted within a cultural context.

The data were categorized and coded according to participants' knowledge, attitudes, beliefs, and ethnocultural practices toward breast and cervical cancer screening. Numerical codes were assigned to each category to allow data entry into a computer and for statistical analysis. Participants answered open-ended questions related to their feelings regarding BSE, breast cancer, cervical cancer, Pap tests, and strategies for preparing for screening procedures. Data analysis began with reading the responses in the transcripts over and over again to gain understanding of the women's feelings. Through this process, themes were identified. Questions were analyzed using SPSS® software (SPSS Inc., Chicago, IL). Comparisons among groups were conducted using Chi-square test of independence for categorical variables and one-way analysis of variance for quantitative measures. A p value of < 0.05 was used for significance of all analyses.

Findings

A total of 105 interviews were completed, 25 from each of the Italian, Ukrainian, and Finnish groups and 30 from the Ojibwa and Oji-Cree group. The median age range for the Italian group was 51–55 years, Ukrainian 61–65 years, Finnish 56–60 years, and native 40–45 years. Groups were compared in general health behaviors. The groups differed significantly ($p < 0.05$) on a number of smoking indices. The native women were much more likely to have ever smoked (77% compared to 40% or less in other groups). The native women also were more likely to be smoking currently (47% compared to 16% or less in the other groups). The other significant differences were that the Italians started to smoke much later in life ($\bar{X} = 27$ years) and were less likely to inhale moderately or deeply.

The groups were not significantly different in the frequency of exercise. The majority of women exercised two or three times per week. The most common type of exercise was walking.

A higher percentage of the native women (73%) than women from other groups ate meat (fat not trimmed). They also were significantly more likely to cook high-fat foods than were the women in the other groups. The native women also were much more likely to add salt to food at the table. Although no significant differences were found in the number of women in each group who drank alcohol, the native women were significantly more likely to have four or more drinks per session. They also drank significantly more coffee than the women in the other groups. The native participants were more likely than the women in the other groups to eat only refined grain products. The Finnish women ate fast food significantly less often. No differences were found among the groups in eating high-fat dairy products, high-fat desserts, or two or fewer servings of fruits or vegetables per day (see Table 1).

The groups differed in their number of pregnancies. The Italian ($\bar{X} = 4.16$) and native ($\bar{X} = 4.10$) women had significantly more pregnancies than the Ukrainian ($\bar{X} = 2.79$) or Finnish ($\bar{X} = 2.75$) women. No significant differences existed in age of first pregnancy, with mean ages ranging from 20–23 years across the groups.

Between 50% and 72% of the women in each group breastfed after at least one of their pregnancies. These differences were not significant. The native women reported breastfeeding for significantly longer on average (27 months) than the Finnish (11 months), Italian (6 months), or Ukrainian (4 months) women.

Oral contraceptives had been used significantly more often by the Finnish (62%) and native (50%) participants than by the Italian (20%) and Ukrainian (20%) women. The groups did not differ significantly in the age at which they started using oral contraceptives. Tubal ligation was slightly more frequent in the Finnish (44%), native (37%), and Italian (28%) women than in the Ukrainian (8%) women, but this difference was not significant.

The use of HRT was significantly different among the groups. HRT was used by 40% of the Italian, 32% of the Finnish, 17% of the Ukrainian, and 3% of the native participants. The groups did not differ in the age when they started using HRT. No significant differences were found among the groups regarding whether their menstrual cycles had been irregular or unusually heavy or the age when their menstrual cycles started.

Table 1. Percentage of Women in Each Group Who Reported Engaging in Each of the High-Risk Eating Behaviors on a Regular Basis

Behavior	Italian (n = 25)	Ukrainian (n = 25)	Finnish (n = 25)	Native (n = 30)
Meat (fat not trimmed)*	16	48	20	73
Dairy products (high fat)	28	16	20	33
Desserts (high fat)	12	20	12	13
Cooking (high fat)*	4	0	0	13
Mostly refined grains*	20	16	12	27
Fruits and vegetables (two or fewer servings per day)	44	32	60	67
Fast foods (occasionally)*	64	48	28	80
Add salt at table*	0	8	16	50
Alcohol (two or more days per week)	36	16	16	10
Alcohol (four or more drinks per drinking session)*	0	0	12	30
Caffeine (four or more cups per day)*	24	46	44	78

* $p < 0.05$

Findings from a range of questions about breast screening revealed a very clear pattern among native women. They were more likely than any of the other groups to have refused breast examination or mammogram, were unaware that women could examine their own breasts, had not been informed about breast and cervical cancer screening, felt uncomfortable about performing BSE, and did not feel comfortable with male practitioners.

Because most of the women in the native sample were younger than 50, they were not eligible to have health-insured mammograms unless referred by a physician. To examine this further, a summary was prepared for each person who had never had a breast examination, who had not performed BSE, or who had not had a Pap test. A picture emerges of native women having a more intense sense of privacy than other women. Based on their comments, native women resent having strangers touch them, and they find examinations to be aversive and intrusive.

The women who had had a breast examination were asked, “How did you feel about this examination being done?” The

majority of women in each group believed that the examination was acceptable and not a problem for them. In every group, some women were more positive, expressing either relief that the results were negative or comfort with taking the test.

However, a larger percentage in every group (20%–52%) had neither positive nor negative comments about BSE because it was perceived as routine. A few women had positive comments about BSE, and a few negative comments surfaced from women who felt uncomfortable and unable to perform BSE. No large differences existed among the groups.

A final question about breast screening was, “If we wanted to tell women like yourself about breast cancer and BSE, what would be some good ways (strategies) that we could use?” A number of common themes emerged across the groups about the need for more information. Many of the women mentioned the value of pamphlets, although others pointed out that visual presentations such as videos or television programs might be more effective. Others emphasized the value of one-on-one presentations either at home, in doctors’ offices, or at screening sites, with direct demonstrations using breast models and other visual aids to provide information.

A second theme that emerged was the need to motivate women to perform BSE and have regular checkups. Suggestions included small workshops, presentations by breast cancer survivors, and the development of curriculum materials for presentation in schools. Several women pointed out that scare tactics do not work and that the positive aspects of regular breast examination should be emphasized instead. Some of the women mentioned that they were uncomfortable with the topic and preferred to discuss it with female doctors or nurses. The comments about the mobile breast screening van (a mobile van equipped with x-ray machines and breast examination tools that travels to rural and urban areas in Northwestern Ontario) were very positive. A few group differences were apparent. The Finnish women were more likely to recommend programs targeted specifically to their culture and language. The native women emphasized the need for education in schools and wider access to the screening van (see Figure 2).

Cervical Cancer Screening

The most dramatic finding was that 33% of the native women ($p < 0.05$) had refused at some time to have an internal examination. Nonsignificant trends also showed that fewer Native women had Pap tests but more of them had a doctor or nurse discuss the importance of regular Pap tests. As in the case of breast cancer screening, the summaries of the individual cases of women who had either refused a Pap

-
- Encourage women to attend breast and cervical cancer screening programs.
 - Use videos rather than booklets for demonstration.
 - Use booklets as take-home references.
 - Have someone who has experienced breast cancer explain breast screening in a home or group setting.
 - Market breast and cervical cancer screening in women’s magazines, daily newspapers, or leaflets in grocery bags.
 - Provide information about screening in schools and universities.
 - Present information on culturally appropriate programs on cable television.
 - Avoid the use of scare tactics.
 - Use home nursing visits for health promotion.
-

Figure 2. Strategies to Inform Women About Breast and Cervical Cancer Screening

test or who had never had one reveal a pattern of native women not having cervical examinations because they find them distasteful and resent invasion of their privacy.

Those women who had had Pap tests were asked, “How did you feel about having this examination done?” The responses varied somewhat across the groups. The majority of women in the Italian, Finnish, and Ukrainian groups found the procedure uncomfortable and embarrassing. A few women found it extremely unpleasant and degrading. In particular, the native women were much more likely to mention feelings of having their privacy violated and of being shy about having a physician examine them. A few of the women mentioned a preference for a female doctor. Selected responses included

- After a while it was OK. “Grit your teeth.”
- I do not like it as it is uncomfortable. A lady doctor would be better.
- Nobody likes it, but do it and get it over with.
- Not crazy about it, but it is a necessary evil.
- Uncomfortable, embarrassing, messy, and an invasion of privacy.
- I feel pain during the procedure and I do not like lying in such a vulnerable position. I just hate the whole thing. I would rather avoid it for as long as possible.

Another question asked about Pap tests was, “Are there any strategies you could suggest to prepare you for this examination?” The women also were asked to describe some of the reasons why they would not have a Pap test. The findings confirmed the pattern of the previous question (see Figure 2).

Discussion

This study was undertaken to investigate a sample of 105 women of ethnic origin (i.e., Ukrainian, Finnish, Italian, Ojibwa, and Oji-Cree) to assess their knowledge, attitudes, beliefs, and practices related to screening for breast and cervical cancer. The interview was based on the C-SHIP model and elicited information on health concepts, health beliefs and expectancies, affective states, health goals and values, and self-regulatory competencies and skills for generating and maintaining health-protective behaviors. Findings of this study suggest that cultural beliefs, attitudes, and practices for health promotion are important aspects for encouraging women from different cultural backgrounds to participate in regular breast and cervical screening procedures. Because of the number of women interviewed, the results cannot be generalized to the larger population, and further studies to verify the findings are required. However, some interesting observations and themes were derived from the participants’ responses. Specifically, four themes emerged from the findings.

Theme 1: Use multiple media sources to inform women about screening programs. Other investigators have addressed the need to take into consideration attitudinal and cultural strategies for imparting information about breast and cervical cancer screening (Burhansstipanov et al., 2000; Champion, 1992; Champion & Menon, 1997; Choudhry et al., 1998; Fitch et al., 1998). Burhansstipanov et al. concluded that the community structure, values, and lifestyles of American Indians must be recognized to successfully increase participation in cancer screening. Choudhry et al. also found that success with breast cancer screening practices of South Asian immigrants involved the use of culturally appropriate marketing

strategies. Their study sample suggested that, by using key informants and social networks, healthcare professionals could access a hard-to-reach population. According to Choudhry et al., key community members, as well as South Asian healthcare professionals, need to be involved with the development and delivery of health-education programs, and the target population should consist of women from similar ethnic backgrounds.

Results from the study of women in Northwestern Ontario support the findings of previous research studies and confirm the need for the development of appropriate marketing strategies to enhance healthy beliefs, goals, competencies, and skills for breast and cervical cancer screening practices. The women suggested the use of videos rather than booklets as a strategy for enhancing information presented to those who are less literate. They also suggested placing information in grocery bags, on coupons, and on refrigerator magnets and using special programs on cable television. Women further stated that nurses who are culturally sensitive to their own ethnic practices should visit women's homes and provide educational sessions either individually or in groups. Of interest is the fact that Internet resources were not suggested as a learning guide. Perhaps this is because of the age of the women and their lack of exposure to computer technology.

Theme 2: Educate women regarding breast and cervical cancer screening. Fitch et al. (1998) found that women had a desire for more information about cancer and strategies for prevention. However, they were unaware of how to access reliable information. The women in the current study expressed similar concerns and also highlighted the need for young women to receive information early in life to allay fears and foster positive health behaviors in regard to prevention and screening. The participants stated clearly that scare tactics do not work but are counterproductive to encouraging women to seek screening. Several participants suggested that information about breast and cervical cancer prevention and screening should be taught in high school (or earlier) and stressed throughout the years by healthcare practitioners. A native participant said that if "the schools spoke to younger children about it, we would practice it."

Theme 3: Remind women when they are due for screening. The incidence and mortality rate from cervical cancer is higher in the poor and native populations in Canada (Band et al., 1992). Fitch et al. (1998) found that screening programs tended to target women of normal risk rather than women of low income, immigrants, and native women. Miller et al. (1996) and Yu, Seetoo, and Qu (2002) suggested that long-term adherence to screening programs requires a complex array of self-cuing behaviors, such as prompts in the form of postcard and telephone reminders, record forms, reminder stickers or calendars, and refrigerator magnets. In Northwestern Ontario, women also desired culturally appropriate strategies to remind them of screening programs. One native participant said, "Yearly telephone calls or check by a health practitioner is helpful."

Theme 4: Pap tests are uncomfortable and frightening.

The researchers noted that 33% of Ojibwa and Oji-Cree women refused to have internal examinations (Pap tests), as compared to 0–8% in the other populations studied. Women in this study had very strong concerns about invasion of their personal privacy. Native women suggested that healthcare practitioners provide information about the step-by-step procedure of the Pap test and the rationale for why it is performed. Other suggestions included

- Educate women at a young age so that they know what to expect.
- Ensure that healthcare professionals include female examiners.
- Develop a new method to examine the vagina.
- "Drink a 40-ounce bottle of rye."

These findings support those of Fitch et al. (1998), in that they provide strategies for Pap testing that include informing women about the test and the importance of screening, being sensitive to women's privacy, designing an accessible and comfortable environment for screening, and performing the procedure to minimize discomfort, such as warming the speculum.

Implications for Nursing Practice

The findings from the guided interviews have several implications for nurses in practice. Nurses must pay particular attention to the development of screening programs that include culturally appropriate marketing strategies such as using networks, key informants, and culturally specific venues (e.g., newspapers, churches, community groups) to gain access to target populations that are difficult to reach. In addition, culturally sensitive health-education programs and resources (e.g., pamphlets, videos, television, media programs, Web sites) that consider literacy levels and visual appeal should be developed. Health-education programs should be designed to target youth in schools regarding the importance of prevention and early detection of breast and cervical cancer. Healthcare professionals must be educated with regard to cultural sensitivity of specific groups.

Nurses should work collaboratively with community representatives to provide better access to screening programs by providing transportation and child care so that women with low socioeconomic status may attend screening programs. Gynecologists, family practitioners, and nurses must work collaboratively to design effective and efficient ("one-stop shopping") breast and cervical cancer screening services for rural and remote communities. One strategy would be for nurses to advocate for training programs to prepare nurses to perform Pap tests. Nurse researchers need to address compliance with breast and cervical cancer screening in selected populations, cost efficiency and effectiveness of screening programs, and the effect of screening programs on low-income individuals from different cultural backgrounds.

Author Contact: Darlene Steven, RN, PhD, can be reached at darlene.steven@lakeheadu.ca, with copy to editor at rose_mary@earthlink.net.

References

- Bakker, D.A., Lightfoot, N.E., Steggle, S., & Jackson, C. (1998). The experience and satisfaction of women attending breast cancer screening. *Oncology Nursing Forum*, 25, 115–121.
- Band, P.R., Gallagher, R.P., Threlfall, W.J., Hislop, T.G., Deschamps, M., & Smith, J. (1992). Rate of death from cervical cancer among native Indian women in British Columbia. *Canadian Medical Association Journal*, 147, 1802–1804.
- Burhansstipanov, L., Dignan, M.B., Wound, D.B., Tenney, M., & Vigil, G.

- (2000). Native American recruitment into breast cancer screening: The NAWWA project. *Journal of Cancer Education, 15*, 28–32.
- Champion, V., & Menon, U. (1997). Predicting mammography and breast self-examination in African American women. *Cancer Nursing, 20*, 315–322.
- Champion, V.L. (1992). Relationship of age to factors influencing breast self-examination practice. *Health Care for Women International, 13*(1), 1–9.
- Champion, V.L., Rawl, S.M., & Menon, U. (2002). Population-based cancer screening. *Oncology Nursing Forum, 29*, 853–861.
- Choudhry, U.K., Srivastava, R., & Fitch, M.I. (1998). Breast cancer detection practices of south Asian women: Knowledge, attitudes, and beliefs. *Oncology Nursing Forum, 25*, 1693–1701.
- Clarke, H.F., Joseph, R., Deschamps, M., Hislop, T.G., Band, P.R., & Atleo, R. (1998). Reducing cancer among First Nations women. *Canadian Nurse, 94*(3), 36–41.
- Coughlin, S.S., Uhler, R.J., & Blackman, D.K. (1999). Breast and cervical cancer screening practices among American Indian and Alaska Native women in the United States, 1992–1997. *Preventive Medicine, 29*, 287–295.
- Fitch, M.I., Greenberg, M., Cava, M., Spaner, D., & Taylor, K. (1998). Exploring the barriers to cervical screening in an urban Canadian setting. *Cancer Nursing, 21*, 441–449.
- Fitch, M.I., Greenberg, M., Levstein, L., Muir, M., Plante, S., & King, E. (1997a). Health promotion and early detection of cancer in older adults: Assessing knowledge about cancer. *Oncology Nursing Forum, 24*, 1743–1748.
- Fitch, M.I., Greenberg, M., Levstein, L., Muir, M., Plante, S., & King, E. (1997b). Health promotion and early detection of cancer in older adults: Needs assessment for program development. *Cancer Nursing, 20*, 381–388.
- Giveon, S., & Kahan, E. (2000). Patient adherence to family practitioners' recommendations for breast cancer screening: A historical cohort study. *Family Practice, 17*(1), 42–45.
- Hislop, T.G., Deschamps, M., Band, P.R., Smith, J.M., & Clarke, H.F. (1992). Participation in the British Columbia Cervical Cytology Screening Programme by native Indian women. *Canadian Journal of Public Health, 83*, 344–345.
- Lanier, A.P., Kelly, J.J., & Holck, P. (1999). Pap prevalence and cervical cancer prevention among Alaska Native women. *Health Care for Women International, 20*, 471–486.
- Miller, S.M., Shoda, Y., & Hurley, R.K. (1996). Applying cognitive-social theory to health-protective behavior: Breast self-examination in cancer screening. *Psychological Bulletin, 199*(1), 70–94.
- National Cancer Institute of Canada. (2003). *Canadian cancer statistics 2003*. Retrieved February 9, 2004, from http://www.cancer.ca/vgn/images/portal/cit_776/61/38/56158640niw_stats_en.pdf
- Panel on Cancer and the Disadvantaged. (1991). *Inequalities in cancer control in Canada*. Report submitted to National Task Force. Cancer 2000, strategies for cancer control in Canada. Toronto, Canada: Canadian Cancer Society.
- Petersen, M., & Fieler, V. (2000). Breast cancer: Stay up to date on the latest research. *American Journal of Nursing, (April Suppl.)*, 9–12.
- Risendal, B., DeZapien, J., Fowler, B., Papenfuss, M., & Giuliano, A. (1999). Pap smear screening among urban Southwestern American Indian women. *Preventive Medicine, 29*(6 Pt. 1), 510–518.
- Ruffin, M.T., Gorenflo, D.W. & Woodman, B. (1999). Predictors of screening for breast, cervical, colorectal, and prostatic cancer among community-based primary care practices. *Journal of the American Board of Family Practice, 13*(1), 1–10.
- Solomon, T.G., & Gottlieb, N.H. (1999). Measures of American Indian traditionality and its relationship to cervical cancer screening. *Health Care for Women International, 20*, 493–504.
- Vellozzi, C.J., Romans, M., & Rothenberg, R.B. (1996). Delivering breast and cervical cancer screening services to underserved women: Part I. Literature review and telephone survey. *Women's Health Issues, 6*, 65–73.
- Yu, M.Y., Seetoo, A.D., & Qu, M. (2002). Challenges of identifying Asian women for breast cancer screening. *Oncology Nursing Forum, 29*, 585–587.