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APARTMENT-BASED BREAST CANCER EDUCATION PROGRAM FOR LOW INCOME VIETNAMESE AMERICAN WOMEN

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ABSTRACT: The purpose of the project was to develop and implement an apartment-based intervention that would improve the knowledge and preventive health habits of hard to reach low income Vietnamese women regarding breast cancer. The targets were Vietnamese women aged 40 and older who resided in apartments in low-income communities in Houston. Twenty apartments were identified and randomly assigned to intervention and control groups. A total of 345 Vietnamese women participated in the project. Follow-up telephone interviews were conducted at five months. Results showed that the intervention group demonstrated significant changes in knowledge and attitudes about breast cancer. Implications of this study include support for culturally appropriate education offered at convenient locations that emphasizes the benefits of early detection of breast cancer for low-income Vietnamese women.

KEY WORDS: low income; Vietnamese American women; apartment-based breast cancer education.

INTRODUCTION

Cancer is the leading cause of death for Asian/Pacific Islander American (APIA) women, and the most commonly diagnosed cancer among this group is breast cancer.[1–4] The incidence of breast cancer in APIA women is 102.0 per 100,000, compared to 140.8 for White women in the United States.[4] From 1992 to 1999, the incidence rate of breast cancer among Asian/Pacific Islander females increased from 90.0 per 100,000 in 1992 to 102.0 in 1999.[4] Evidence suggests that exposure to the Western lifestyle increases breast cancer risk among immigrants from Asia. Vietnamese women were younger at diagnosis than other racial or ethnic

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subgroups.[5,6] Previous studies[7–12] have indicated that Asian American women underutilize breast cancer screening procedures. Low income and less acculturated Vietnamese women are associated with reduced frequency of mammograms or with never having a mammography. Despite the fact that more than 120,000 Vietnamese immigrants and refugees live in Houston,[13] few breast cancer intervention programs have been designed for this population. Little is known about breast cancer screening knowledge and practices of these women. Reducing morbidity and mortality from breast cancer has been at the forefront of cancer control research in recent years; yet, conventional breast cancer education programs are not reaching low income and less acculturated Vietnamese American women.

The purpose of this study was to develop, implement, and evaluate the effect of an apartment-based breast cancer educational program for the hard to reach low income Vietnamese women. An apartment-based approach was selected because apartments have the physical resources and peer influence that may not be available in other community organizations. The intervention was designed to increase breast cancer knowledge and to motivate the target group to get screened for breast cancer.

METHODS

Intervention Sites and Sample

Twenty predominantly low-income apartments were identified and randomly assigned to intervention and control groups. These apartments were chosen because the residences of these apartments were located in low-income areas in Houston and have high concentration (e.g., more than 35 Vietnamese households) of Vietnamese. For the purposes of evaluation, the 10 intervention apartments were considered collectively as a single intervention community and the 10 control apartments were considered collectively as a single control community. All Vietnamese women 40 years of age or older living in these apartments were considered eligible participants in the study. Participants were a volunteer sample of 345 women recruited from target sites by distribution of fliers at the participating apartments or by house-to-house solicitation of Vietnamese women identified by complex managers. A total of 179 women were recruited into the intervention group and 166 women into the control group.

Measures

Questionnaire items were designed to collect information on demographic information. The participants were asked about their past experience with breast cancer screening procedures. In order to assess knowledge, the questionnaire included 20 true/false statements about breast cancer and breast cancer screening. The maximum possible score was 20 (where all answers were correct) and the minimum zero (where all answers were incorrect). The questionnaire was translated into Vietnamese from English. The completed questionnaires were pre-tested and reviewed for content validity by a group of health services researchers not involved with the project and the study's advisory committee.

Intervention Programs

To assist with the development and implementation of the program, two bilingual lay health educators were recruited. They acted as a bridge between the targeted community and the project, and were very important factor in the success of the interventions that involved face to face contact with community residents. A total of 20 educational sessions were conducted over the 3 months in the intervention groups. The educational session took approximately one hour and included information on the importance of screening and breast health, recommendations for screening, and referrals for screening. Printed educational materials were mailed to all participants in the control group at the completion of the project. All educational materials (e.g., video, brochures) were selected and reviewed by an advisory committee.

Evaluation Procedures and Analysis

The evaluation design included 2 surveys: a self administered baseline survey of all participants prior to the intervention and follow-up telephone survey 5 months after baseline. Of the 345 women, 313 (90.7%) participated in the follow-up telephone survey and 9.3% were lost to follow-up due to incomplete or inaccurate telephone numbers. Intervention and control groups were compared at baseline and after the 5-month follow-up for level of knowledge about breast cancer, breast cancer screening practices, and future intention to use the breast cancer screening procedures. The follow-up survey also assessed the acceptability and barriers to the intervention. We compared responses from intervention and control

groups using χ^2 tests. All data was analyzed by utilizing the SPSS[14] version 10.0.

RESULTS

A total of 345 women participated in a pre-intervention survey. The mean age of the participants were 55 years, ranging from 40 to 75. The participant's length of residence in the US ranged from less than 1 year to 26 years at an average of 8.26 years (SD = 5.80). A comparison of the intervention and control sites with respect to selected background characteristics is shown in Table 1. Analysis of pre-intervention data indicate that the intervention and control apartments were similar with respect to demographic characteristics, the level of knowledge of the breast cancer, and in reported breast cancer screening history. Thus, the pre-intervention data indicates a good match between intervention and control sites.

Table 2 shows results from the 5-month telephone survey follow up with study participants. At the 5-month follow up, breast cancer knowledge levels were significantly higher in the intervention group after receiving education about breast cancer when compared to women in the control group. There was a significant increase in the number of women practicing breast self exam among those who were in intervention groups. In addition, the majority of women in the intervention groups indicated they would ask their doctor about early detection of breast cancer.

DISCUSSION

One of the main barriers for low income Vietnamese women to receive any type of preventative care is transportation and lack of access to health care. Most women in this study reported that they do not drive because they either cannot afford an automobile or they simply avoid driving due to fear of busy traffic. For women who are able to drive, they can only drive to the local supermarkets or churches, as many are afraid to far distance. Using apartments as intervention sites provided us with several advantages. With the classes at the same complex, the women could finish their household chores and then join the class for a quick one-hour session. They did not need to bother their husbands or other family members for transportation to another location. It was also convenient to invite friends and neighbors to join the session with them. Since women generally like to share female experiences with friends, this was certainly a great topic for

TABLE 1

Comparison of Intervention and Control Groups

Participant Characteristics[a]	*Percent (%) with Characteristic*			
	All (n = 345)	*Intervention Group (n = 179)*	*Control Group (n = 166)*	*Significance (p)*
Ever performed breast self exam	38.3	38.0	38.6	.914
Performed monthly breast self exam	18.6	16.8	20.5	.374
Ever had mammogram	32.8	33.0	31.7	.278
Ever had clinical breast examination	48.7	53.1	44.0	.091
Less than 5 years in the US	36.2	35.2	37.4	.678
Household income less than $20,000	67.9	67.7	68.7	.845
Have no health insurance	41.4	36.9	47.0	.058
Less than high school education	64.9	68.6	62.4	.233
Aged 50 years and older	67.8	69.9	64.8	.801

[a]Response categories: Yes = 1, No = 2.

TABLE 2

Comparison of Intervention and Control Groups: Knowledge, Attitudes and Behavior (n = 313)

	Intervention Group (n = 164)		*Control Group (n = 149)*	
Characteristics	*Baseline (5-month Follow-up)*	*Difference*	*Baseline (5-month Follow-up)*	*Difference*
Mean knowledge scores (out of 20 possible points) on breast cancer[a]	13.7 (17.9)	+4.2**	13.0 (14.5)	+1.5
% Correctly answered that a woman (after age 40) should have yearly clinical breast exam by a nurse or doctor	37.8 (83.4)	+45.6***	41.9 (46.7)	+4.8
% Correctly answered that a woman (after age 40) should have yearly mammograms	37.8 (82.2)	+44.4***	39.5 (41.3)	+1.8
% Correctly answered that a woman should perform monthly breast self exams	47.5 (89.4)	+41.9***	38.0 (63.9)	+25.9
% Agree that Asian women are at risk for breast cancer	51.5 (96.6)	+45.1***	49.7 (69.9)	+20.2
% Performed monthly breast self exam	38.0 (88.8)	+50.8***	38.6 (48.1)	+9.5
% Intended to ask doctor about early detection of breast cancer	39.0 (93.4)	+54.4***	40.5 (53.9)	+13.4

[a]Knowledge score range is 0-low to 20-high., *p < .05, **p < .01, ***p < .001, p-value is based on X^2.

them to learn and discuss among themselves. When these low-income apartments do not have a sufficient office space or facility to hold an educational session for 10–15 people, classes were held at a tenant's apartment. When a tenant agrees to use her apartment for the class, she often pulls all her friends, families, and neighbors to join the class. Because the setting of the class is in a comfortable living room of a close friend or neighbor, the women are more at ease and eager to learn about a personal topic, such as breast self-examination.

Although apartments provided us with many advantages, difficulties also existed in working with the complexes. Because the sessions were often held at a tenant's apartment, there were many distractions that divert the women's attention away from the main topic, such as phone calls, chores, and children. At the same time, there could be other male members of the family at home, making it uncomfortable for other women. Other barriers were associated with the process of recruiting participants for the project. When approaching the women, many of them seemed uninterested because they do not have time to attend the class. Some women heard of ''attending class'' and backed off right away, claiming they are too old to attend class, illiterate, or never attended class before. Another difficulty was to convince apartment managers' approval for distribution of fliers door-to-door. One suggestion to overcome these barriers would be to work closely with Vietnamese health care providers and a management staff. Asian Americans highly respect medical professionals and would most likely respond to their physician's recommendation. Recruitment fliers could be distributed to medical offices and ask physicians to support the project by referring their patients to the program.

Although our results show promises for the success of breast cancer education programs in this type of setting, any attempts to replicate our study should consider increasing the involvement of a management staff. One such approach is to train a management staff and facilitate the adoption of healthy behaviors to their residents. Another option would be to involve medical professionals in convincing apartment management to participate in the recruitment process. Having a physician support the project would increase management's willingness to cooperate. A further approach would be to involve the family, especially the husband, in the education process. In some Asian tradition, the wife usually lets her husband make all decisions for her, even medical decisions for herself. Therefore, it is important that the husband understands the importance of a mammogram so he will support her need to obtain one. Not to mention, women of the older generation usually had less education than the men and therefore, do not understand educational literatures as well as the

men, even in their native language. It is important to consider more upstream approaches that intervene within existing organizational structures. Limitations of this study include the possibility that the self-reports of screening might over or underreport their screening practices. In addition, given that participants were a volunteer convenience sample, the generalizability of our conclusions may be limited.

Women in the study had low levels of knowledge before enrollment. An in-person intervention offered in a convenient setting was effective in reaching hard to reach low income immigrant Vietnamese women to increase knowledge and motivate them to utilize breast cancer screening. Anticipating the skills and learning styles of these women were critical in developing successful educational activities. It is important to look for preferred learning styles (i.e., written vs. oral), potential barriers to the woman's involvement in the program (e.g., transportation, child care, time) and environmental circumstances (i.e., social and home environments) that may influence health behaviors and beliefs when reaching out to a low-income and less acculturated Vietnamese women.

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