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Predictors of Breast Examination Practices of Chinese Immigrants

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Abstract

Breast cancer is a significant threat to Chinese women living in the United States. The purposes of this study are, first, to examine the relationships among breast cancer risk knowledge, general cancer beliefs, and breast examination practices and, second, to determine the predictors of breast examination practices among Chinese women in New York. The study offers a descriptive approach that makes use of a correlation cross-sectional survey (N = 135). Five significant predictors are related to breast examination practices as a result of the study findings: age, acculturation, private insurance status, legal status, and length of stay in New York. Findings show that women who have regular breast examinations most likely belong to older generations, as compared with their younger peers. Study findings suggest that healthcare providers must become more culturally sensitive to the practices and needs of Chinese immigrants. Evidently, providing information regarding cancer prevention targeted for female Chinese immigrants can help increase use of cancer screening tests.

Keywords

Breast cancer; Breast self-examination (BSE); Chinese immigrants; Clinical breast examination (CBE); Mammogram; New York City

Background

In the United States, immigrants face a complex health-care system in which the modes of communication and the expectations of both clients and providers significantly differ from those in their home countries. Because of the differences between healthcare delivery systems, immigrant women need to be reoriented about the practices of breast cancer screening.^{1,2}

The most commonly diagnosed cancer in women, including Chinese women, is breast cancer.³ Women older than 40 years have a 1 in 8 chance of developing breast cancer at some point in the future.⁴ Studies have shown that for Chinese women living in the United States, breast cancer becomes a greater health problem with every successive generation.^{3,5} Chinese Americans do not feel as susceptible to this illness as their white counterparts, tending to regard breast cancer as a “white woman’s disease.”^{6,7} Because of their unfamiliarity with the American healthcare systems and their unique and different cultural perspective, Chinese women who are diagnosed with breast cancer are usually in the final stages, thus increasing the mortality rate in this population.^{8–10}

Chinese Health Beliefs

The Chinese concept of the human body differs to that of Westerners.^{11,12} In Western medicine, the parts of the body are classified according to function: for example, the respiratory, skeletal, and cardiovascular systems. In the traditional Chinese medical approach, the body is recognized as a whole and is treated as a whole, and diseases are identified as conditions caused by internal imbalances. The role of physicians is to identify these imbalances and then correct them, after which the body is expected to heal itself.^{13,14} The balancing factors of yin (cold) and yang (hot) are thought to govern health, and maintenance of this balance affects some Chinese eating practices and pain management.^{15,16}

Chinese people see cancer as a modern disease. The word *cancer* loosely translates into Chinese as *growth*, and it was seen as a matter of “tragic luck.” Because most practitioners of traditional Chinese medicine agree that no Chinese medicine can cure cancer, it is seen as a “death penalty”—involving great suffering, and most women do not want to think or talk about it.^{17,18}

According to Chinese medical theory, cancer can remain undetected in the body and can be caused by the following: breathing polluted air, smoking, drinking alcohol, using aluminum or lead utensils, and eating chemically sprayed crops.^{14,17} Failure to understand breast cancer potential risk factors in Chinese Americans has potentially resulted in greater levels of disease development.

Female Chinese immigrants to the United States who experienced the revolution in China and who consequently have only 1 child (in accordance with the 1-child policy) are more likely to join the workforce. Female immigrants from Hong Kong have been particularly influenced by Western cultural attitudes and the educational opportunities that promote women’s independence.^{14,19} These women are often the primary breadwinners, either because they have been widowed or because their husbands have remained in their homeland.²⁰ Many Chinese women therefore concentrate on their work while also taking care of everyone in their family, leaving them little time to worry about possible future health problems.^{10,21}

Breast Cancer Preventative Practices

Asian women 40 years and older are less likely to have had a mammogram in the prior 2 years than are their African American and white counterparts (45% of Asian women vs 48% of African American and 56% of white women will have had a mammogram in the previous 2 years).²² Moreover, studies conducted in specific states have also revealed low mammography screening rates among Chinese, Korean, and Vietnamese women.^{23–26} Yu et al²⁶ found that in Michigan, only 57% of Chinese women 40 years and older had had a mammogram within the prior 2 years. Another study surveyed Korean women in California 50 years and older and found that only 34% had had a mammogram in the prior 2 years.²⁵ In addition, McPhee et al^{23, 24} reported that only 30% of Vietnamese women in California 40 years and older had ever had a mammogram.

A recent study reported that Chinese women living in Asia have slowly come to accept breast cancer screening when breast cancer prevention programs are available and screening is feasible.²⁷ In contrast, however, many studies have reported that the female Chinese immigrant population is still hesitant about seeking screening in the United States.^{11,27–29} Facione et al^{28,30} found that Chinese American women believe that developing breast cancer was a consequence of tragic luck and were very likely to delay reporting symptoms and to favor the use of Chinese medicine before turning to Western therapies. Many Chinese immigrant women do not seek out breast cancer screening because of a lack of proficiency

in English.^{6,11,12,26,31} Societal stigma toward breast cancer and other cancer survivors has also decreased the likelihood that Chinese immigrant women will seek early detection.³¹

Acculturation

Acculturation refers to the process of exchanging cultural elements between 2 or more groups of people, with a 2-way flow of cultural elements. One well-documented phenomenon is the change in the behavior of individuals or groups resulting from continued contact with members of other cultural groups. Thus, we can say that “acculturation is a culture-producing and culture-receiving process.”³² Chen and Bakken³³ found that Chinese women who were more acculturated to the dominant society (specifically the United States) were more likely to have greater knowledge about breast cancer risk than were their peers. They were also likely to have higher incomes and higher levels of education.³³ A similar result was found among Chinese immigrants in San Francisco.³¹ Wong-Kim and Merighi¹⁵ have shown that increased length of stay in the United States, higher incomes, and having a birthplace other than the United States predicted higher breast self-examination (BSE) practices.

Study Purpose

In conjunction with the increasing body of literature that discusses the difficulties faced by Asian populations in seeking appropriate and timely healthcare, this study shows that Chinese women immigrants in New York face identifiable barriers in relation to breast examination practices. The purposes of this study are to (1) examine the relationships among acculturation, general cancer beliefs, and breast examination practices and (2) determine the predictors of breast examination practices among Chinese women in the New York metropolitan area. This article will assist public healthcare agencies in their understanding of the obstacles that female Chinese immigrants face with respect to good breast examination practices.

Theoretical Framework

The theoretical framework that guided this study is the Health Belief Model (HBM). The HBM has been frequently used to explain variations in the use of breast cancer screening by different population groups, including immigrant women in the United States and Australia.^{11,14,34} The HBM was initially introduced by Hochbaum, Leventhal, Kegeles, and Rosenstock in the 1950s and had 6 original concepts: (*a*) susceptibility: perceived personal vulnerability to a health condition; (*b*) seriousness: perceived personal harm of the condition; (*c*) benefits: perceived positive attributes of an action; (*d*) barriers: perceived negative aspects related to an action; (*e*) general health motivation: beliefs and behaviors related to the state of general concern about health; and (*f*) confidence: the belief that one can successfully execute a behavior that will then lead a desirable outcome.³⁵ Then, Becker and Maiman’s HBM includes factors influencing patient compliance and factors contributing to health promotion and disease prevention.^{36–38} According to the HBM, women who believe that breast cancer is a serious condition and/or feel that they are susceptible to breast cancer are more likely to perform breast cancer prevention behaviors (ie, by using BSEs, clinical breast examinations [CBEs], and mammograms).^{11,34,39,40}

Methods

This descriptive, correlative, cross-sectional study used a self-administered survey. The study was conducted after approval was obtained from the institutional review board at the Columbia Presbyterian Medical Center.

Sampling

Study participants were recruited from various arenas in the New York metropolitan area, including, churches, temples, childbirth classes, and American Cancer Society-Chinese Unit activity meetings. (Agents of the study obtained approval from all leaders at each site.) Participation in the study was limited to Chinese immigrant women 18 years and older who were literate in Chinese. (Because the survey was in Chinese and each participant had to fill out the questionnaire by herself, Chinese literacy was a requirement.) Consent was obtained from each participant before the survey was given.

Power Analysis

Based on the pilot data, a sample size of 100 study subjects would have 80% power with α at .05 to detect a small to median effect size (cumulated R of .15 or higher) in a multiple regression analysis with 9 independent variables. One hundred study subjects also offers at least an 80% level of power with α at .05 to detect a 30% or higher value of correlation between the scores of acculturation and the scores of knowledge level in breast cancer risk factors.

Study Questionnaire

The study questionnaire was adapted from Lee et al⁴⁰ and focused on breast cancer prevention, including measurements of attitudes toward healthcare and cancer, general cancer beliefs, and breast cancer examination practices in the San Francisco area. A pilot study was conducted to assess the reliability of the adapted instrument for use in New York. Using a sample of 35 participants, the subscale reliabilities ranged from 0.54 to 0.94. A total of 80 questions were used in the current study (see Table 1).

Answers to questions concerning the beliefs and practices of the participants when seeking healthcare, routine checkup behavior patterns, and attitudes toward traditional Chinese healthcare were collected. The last group of questions was designed to offer insight into the general attitudes of participants toward cancer, for example, “Does the word *cancer* scare you?”

The study questionnaire contained Likert-type questions. The questions in the acculturation portion, revised from the California Pathway instrument, were reversed with respect to degree, for example, 0 = no English to 5 = fluent English.⁴⁰ The level of the participant’s score was consistent with her level of acculturation—the higher the score, the greater the assimilation into the new community.⁴⁰ The acculturation scores ranged from 5 to 27. The continuous scores of the breast examination practices for the participants were arrived at as follows: the dichotomous answers on breast examination practices, CBE and BSE, were assigned 2 scores, for example, no = 0 and yes = 1 for the question “Have you ever had a clinical breast examination?” The highest breast examination score was 2 and the lowest was 0. Mammogram practices were presented as descriptive data because women younger than 40 years are not required to have mammograms, and in this sample, almost half (47%) of the participants were younger than 40 years.

Descriptive statistics were computed using the Statistical Package of Social Science (SPSS Inc, Chicago, IL). The relationships between breast examination behavior patterns and insurance status, age, marital status, length of residence in New York, employment status, legal status (undocumented or legitimate), household income, and acculturation level were tested using polytomous logistic regression. Variables related to breast cancer knowledge have been reported in a separate paper.³³ Data collection took approximately 4 months. There was a 70% return rate on the 195 questionnaires distributed.

Results

The age of the participants in this study ranged from 18 to 77 years. Of the 135 women returning the surveys, 19 left the answer to the question asking their age blank (Table 2). Most (56%) participants had finished only junior high school. Approximately half (55%) of the women were still working. Most of the women (94%) lived in Queens, Brooklyn, and Manhattan, with a household size greater than 3 (75%). Just more than a quarter (28%) of the participants smoked or lived with a smoker.

Women in this sample were not very acculturated to American society; the range of possible acculturation scores ranged from 5 to 27, and this sample ($N = 135$) had a mean (SD) score of 10.79 (4.32). Participants whose scores were in the middle range (12–19) may have achieved a balance between Chinese and American cultures.

The 135 respondents included 11 cancer survivors, of whom 5 had survived breast cancer; 2, cervical cancer; and 4, “other” or undisclosed forms of cancer. A small number of the women stated that they ate fruits and vegetables (17%), went for regular medical checkups (16%), and engaged in regular exercise (13%) to prevent reoccurrence of cancer; however, 2% of the women were doing nothing for cancer prevention.

Within 70% of the women had done BSE, and 30% of them had learned how to do BSE from their physicians. Two-thirds of the women had been given a CBE, but 21% had not had a CBE in the last year. Of those who had not had a CBE, 23% of them were still waiting for their physicians to recommend it (see Table 3).

Seventeen percent of those older than 40 years had never had a mammogram. Of these, 29% had not had a mammogram because their physician had not recommended it; the rest had not because they did not know where to go to get one and/or were worried about the cost. Almost 37% of the women were referred for mammograms by a private physician’s office, but 19% of these did not know where to go to get one.

Correlations Among Acculturation, General Cancer Beliefs, and Breast Care Practices

The correlation coefficient r was obtained for the 3 continuous scores: acculturation, general cancer beliefs, and breast care practices. Analysis of study findings showed that cancer beliefs are not significantly related to acculturation levels or breast care practices. However, acculturation and breast care practices are significantly related (see Table 4).

Polytomous Logistic Regression

Polytomous logistic regression was used to determine the significant predictors of breast care practices. In the 2 regressions, BSE and CBE served as dependent variables. One regression model used BSE and CBE as dependent variables, and the other used either BSE or CBE as the dependent variable. Forty-five percent of the women did not practice any BSE or CBE.

Five significant predictors related to behavior patterns with respect to breast care emerged: age, acculturation, private insurance status, legal status, and length of time in New York (<15 years vs 15 years and above). Those who did not practice BSE regularly and seek CBEs were most likely to be younger (odds ratio = 2.907, $P = .011$) than those who did not practice regular screenings. Moreover, those who arrived in New York recently, less acculturated, lacking insurance and legal status were less likely to practice BSE and seek CBEs regularly. As expected, women who were more acculturated were twice as likely to have regular breast cancer screening behavior patterns compared with those who were less acculturated, younger, and lacking in insurance and legal status and whose length of stay in

New York was shorter. After adjusting by age, acculturation, legal status, and length of time in New York, women who practiced BSE and sought CBEs were 2.7 times as likely to have private insurance compared with those who did not. Regularly practiced breast care behavior occurred 1.9 times more often among women with legal status than among those without. Women who had lived in the New York metropolitan area longer were 4.5 times more likely to perform breast care regularly.

The older the woman, the more likely she was to either perform BSE or seek CBE, with numbers adjusted for acculturation level, length of time in New York, and insurance and legal status (odds ratio = 2.87, $P = .015$). In this group of either practicing BSE or seeking CBE, women who had lived in New York City longer (>15 years) were 4.2 times more likely to practice BSE or seek CBEs were than those living there for a shorter period (< 15 years) (see Table 5).

Discussion

Although many studies report that general health motivation is significantly correlated with breast examination behavior,^{10,11} this study shows no significant relationship between breast examination practices and beliefs about cancer specifically. This might be because the Chinese believe that cancer is “incurable,” thus obviating the need for preventive behaviors.^{11,41–43}

This study indicates that Chinese women who are more acculturated to American society have fewer healthcare access problems when seeking medical care in New York. Acculturation level and breast examination practices were significantly related ($P = .052$). In a similar study with Latina women, low acculturation rates have been shown to be barriers to the use of mammography.⁴⁴ Other studies reported that low acculturation is highly associated with low mammography usage.^{11,28,29,45–47} Among the first-generation immigrant population, lack of acculturation may pose an important barrier to medical care access and to undergoing cancer screening tests. This study shows the similar results that the higher the level of acculturation, the more likely women were to practice breast cancer screening.

Breast care was a low concern in day-to-day living for the less acculturated participants in this survey. This might be because study participants are not acculturated to mainstream American health practice, which is generally care-driven. Chinese in the New York metropolitan area tend to live in self-reliant, contained conditions. All of their daily activities can be undertaken within the 3 Chinatown regions in Queens, Brooklyn, and Manhattan. Within each Chinatown, women can buy Chinese food, speak their native language, and catch shuttle buses to Brooklyn, Flushing, and other parts of Manhattan. There is even a Chinese-operated Greyhound bus service that serves the northeast American regions and includes routes from Manhattan to Boston, Washington, DC, and Philadelphia. One can thus say that these Chinese immigrants have acculturated to the “New York Chinese” environment in the Metropolitan area.

General cancer beliefs did not seem to vary depending on acculturation rates, nor did awareness about cancer change breast care practices. The fact that women who are more acculturated into mainstream society practice breast care significantly more often than their less acculturated counterparts do may be because the more acculturated women are “convinced” from the mass media. These acculturated women might see that breast care is a part of the regular healthcare, so they seek breast care routinely.

Studies have reported that the majority (90%) of Chinese female participants receive BSE information from newspapers or magazines rather than from health professionals, who are

the only persons qualified to teach them how to perform a BSE in the current Chinese healthcare system in, for example, Taiwan.^{10,11,48,49} In contrast, only 48% of the women in this study were taught BSE by their healthcare providers. The difference between these experiences might be explained by Taiwanese culture's more conservative cultural attitude toward BSEs.

During 1998 to 2002, the New York City government advocated more breast healthcare in health professions. City hospitals and local organizations (eg, the American Cancer Society-Chinese Unit and Chinatown clinics) typically provide free breast and cervical cancer screening for women who qualify for the service. In this sample, women who had lived in New York for longer periods of time seemed to have more exposure to the availability of free services and related campaigns. These programs have influenced longer-term Chinese residents to practice BSE and CBE 4.5 times more than those Chinese women who have only been in New York for short periods of time.

Marital status was not a factor in the practice of breast cancer screening behavior patterns identified in this study. However, McPhee et al^{23,24} reported that never having been married is a negative predictor of the likelihood of receiving screening tests among Vietnamese populations. This may be explained by the fact that married women are more likely to receive such care during their obstetric/gynecologic visits during pregnancy or during their reproductive years or, alternately, that differences exist between Vietnamese and Chinese populations.

This study showed no relationship between educational levels achieved in the United States or in the Asia and breast examination practices in the women surveyed. Chinese women who have not learned to navigate the American healthcare system and who do not know where and how to find a physician who will provide breast care services cannot engage in effective breast examination practices, no matter how many years of formal education they have received. Because preventive care is lacking in China, this finding is hardly surprising. New immigrant women, particularly those with undocumented status and less acculturation and who have not lived long in New York City, have difficulty learning about preventive medicine and screening from the mainstream culture. This finding is consistent with that of other studies.^{10,11,31,50}

In addition, the perception of "immunity" from breast cancer due to race and ethnicity is widely felt in Asian female populations.⁵¹⁻⁵³ Especially in the New York area, most cancer prevention programs target whites and non-Asian minority groups, and the study participants may have believed that they were not at risk and consequently practiced fewer preventive breast care behavior patterns.

The HBM postulates that people are more likely to carry out health-related behavior patterns if they believe that they are susceptible to a health condition and if they understand that the condition is serious.⁵⁴ Research findings indicate that perceived susceptibility and seriousness are significantly associated with the practice of BSE.^{14,55-57} Barriers, including lack of time and embarrassment, have consistently been reported to have a negative association with BSEs.^{31,33,53,58} In today's world, however, Chinese women do not feel as embarrassed touching their own body parts; only 14% of study participants stated that they felt uncomfortable when they examined their own breasts. The statement of one participant summarized the attitude of many others: "I am healthy; I don't need the exam." Such an attitude suggests that there is widespread lack of knowledge about the importance of preventive health screening and BSE practices.

Findings from the current study show that Chinese women seek traditional Chinese medicine no matter how acculturated they are to the American society. They still believe

that acupuncture can cure their discomforts even though Western medicine presents more scientific evidence. Because Chinese women believe that their older medical system can better cure their illnesses irrespective of their level of acculturation, they still practice this kind of alternative medicine in the United States and claim that they would recommend that their friends and family do the same. Many studies have found that Chinese prefer to use traditional Chinese medicine at the first sign of any discomfort.^{15,59,60}

Study Limitations

This is a preliminary study related to breast cancer screening among Chinese women in the New York metropolitan area and, as such, has a number of limitations in drawing general conclusions. First, the small sample size limited the data in terms of what kinds of general conclusions can be formed about Chinese women living in New York City. Second, the “Chinese” women in this study included women who came from China, Taiwan, Hong Kong, and Southeast Asian countries. Currently, there are limited data available regarding Asian women’s breast examination practices in New York City that can be used to evaluate possible differences between various groups of Asian women. Third, there are no nonrespondent data to assess potential bias in survey response. The recruiting method may have introduced bias, because women who join community events have a variety of reasons for attending such social gathering, for example, to make more friends or to fulfill religious objectives; therefore, this makes their responses potentially nonrepresentative of the larger population.

Provider Implications

Lack of regular screening in the studied population could be due to the participants’ ignorance about screening guidelines and the risk factors of breast cancer, and in fact, most of the participants in this study had not heard about breast cancer risk factors. Several steps need to be taken by healthcare providers who serve the Chinese population: First, sources of cancer prevention information (via booklets, mass media, or health professional contacts) should be made available in Chinese. Second, Chinese women need to be informed of the breast cancer screening guidelines and the benefits of regular screening by healthcare providers or other medical staff. Third, the need for regular checkups as a way to prevent disease should be reinforced during every clinical visit. Fourth, instruction about BSEs should be incorporated into regular clinical encounters with Chinese women via demonstration and back-demonstration. Finally, special outreach programs that are appropriately directed at Chinese culture, language, and various educational levels should be initiated in collaboration with local organizations. This way, healthcare providers can establish guidelines for the early detection of breast cancer in this population.

Conclusions

Cancer-related studies usually view Asian Americans as a homogenous group. However, considering the significant differences in the backgrounds of each subethnic group, researchers would be more accurate if they viewed the Asian American population as being composed of individual groups.⁵¹ In addition, low breast cancer incidences and mortality rates among Asians have led to the belief among healthcare providers, policy makers, and the general population that Asian American women are not at risk of breast cancer.^{35,40,61,62} Reports validate the argument that governmental agencies and service providers do not need to spend money on breast and cervical cancer education and early detection for Asian American populations.^{4,5,22}

The results of this study indicate that age, acculturation, private insurance status, legal status, and length of stay in New York are predictive factors related to breast examination

practices among Chinese residents of New York. Especially clear is the pattern indicating that women who stay in New York longer practice more breast screening tests than do newer immigrants, who practice fewer or even no tests. Healthcare providers should convert medical knowledge to culturally acceptable practices embraced by immigrant populations. Community organizations and their members should be encouraged to participate in existing early-detection programs so that they may, in turn, use their influence with other members of their networks within the local population.

Breast cancer is a significant and often underrecognized risk among Chinese immigrant women in the United States. Studies such as this provide a basis for dealing with important cultural differences in cancer prevention and intervention and may help to increase the use of cancer screening in many different populations.

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Table 1

Survey Summary

Variables	Content	No. of Items	Pilot Cronbach α
Acculturation	Language, identity, social preferences, behaviors, and attitudes	9	.5944
General health concepts	Transportation difficulty, waiting time, child care issues, cost, regular checkup concept, traditional Chinese health practice		.7537
Healthcare access		14	
Traditional Chinese medicine		6	
Concepts of cancer	General cancer screening, cancer concept, general cancer knowledge, cancer treatment preference	6	.5279
Breast cancer risk	Risk factor knowledge assessment	10	.9402
Breast cancer screening practices			
Mammogram	Mammogram practice, mammogram facility access	7	.4437
Clinical breast examination (CBE)	CBE practice experience, healthcare provider recommendation	3	.5337
Breast self-examination (BSE)	BSE practice experience, learning experience of BSE	6	.7229
Demographic data	Insurance, support system, length of stay in the United States, educational level, working hours, number of children, original country, religion, annual income	19	
Total		80	

Table 2

Demographic Data

	No. ^a	No. (%)
Age	116	
18–39 y		55 (47)
40 y		61 (53)
People living in the same house	122	
0–2		31 (25)
3		91 (75)
Insurance status	125	
None		36 (29)
Public		33 (26)
Private		53 (42)
Marital status	123	
Married		91 (74)
Children	115	
0		24 (21)
1		91 (79)
Birthplace	128	
Hong Kong		10 (8)
China		71 (55)
Taiwan		36 (28)
Working status	128	
Employed		70 (55)
Religion	126	
Buddhism		70 (56)
Christian		27 (21)
Legal status	126	
Undocumented		29 (23)
Legitimate		85 (67)
Income	108	
\$20,000		57 (53)
\$20,001		51 (47)

^aTotal N = 135, including missing data.

Table 3

Description of Cancer Beliefs and Breast Care Practice

Items	Yes, No. (%)
Do you worry about cancer?	100 (77)
Do you think you might have cancer without knowing?	20 (15)
Are you afraid cancer treatment then not to have cancer tests?	38 (29)
Do you have cancer?	11 (8)
Breast care practice/outcome behavior	
Ever examined own breasts	70 (55)
BSE frequency (within a year)	
None	46 (44)
Up to 6 times	43 (41)
>7 times	15 (14)
Ever been shown BSE	72 (60)
Physician	35 (30)
Brochure/Magazine	28 (24)
Nurse/Educator	22 (18)
Ever had CBE	83 (67)
CBE frequency (year)	
None	13 (14)
Once	62 (65)

Abbreviations: BSE, breast self-examination; CBE, clinical breast examination.

Table 4

Correlation Among Acculturation, Cancer Beliefs, and Breast Care Practice

	Acculturation	Cancer Beliefs	Breast Care Practice
Acculturation	1		
Cancer beliefs	0.109	1	
Breast care practice	0.335 ^a	0.007	1

^aCorrelation significant at the $P < .01$ level (2-tailed).

Table 5

Significant Predictors of Behaviors in Breast Care

Behavior	Log (OR)	SE	P	OR
BSE and CBE				
Intercept	1.726	0.574	.003	
Age	1.067	0.422	.011 ^a	2.907
Acculturation	0.752	0.386	.052 ^a	2.121
Insurance	0.989	0.422	.019 ^a	2.688
Legal status	0.617	0.311	.047 ^a	1.853
Length of stay in New York	1.508	0.675	.025 ^a	4.517
BSE or CBE				
Intercept	1.282	0.584	.028	
Age	1.054	0.432	.015 ^a	2.870
Acculturation	0.285	0.403	.479	1.330
Insurance	0.785	0.438	.073	2.193
Legal status	0.330	0.325	.309	1.392
Length of stay in New York	1.433	0.683	.036 ^a	4.189

Abbreviations: BSE, breast self-examination; CBE, clinical breast examination; OR, odds ratio.

^aSignificant at the $P < .05$ level (2-tailed).