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The impact of breast cancer educational workshops on knowledge and breast self-examination practice among Korean-American women

Corinne Lee

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THE IMPACT OF BREAST CANCER EDUCATIONAL WORKSHOPS ON KNOWLEDGE AND BREAST SELF-EXAMINATION PRACTICE AMONG KOREAN-AMERICAN WOMEN

by

Corinne Lee

Thesis

Submitted to the School of Nursing
College of Health & Human Services
Eastern Michigan University
in partial fulfillment of the requirements
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in
NURSING

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August 25, 2011
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Dedication

To my parents, JongUn and Miwon Lee, thank you so much for all your support and encouragement. To my brother, sister-in-law, and nephew for all the laughs you have given me in my stressed moments. To my very dear grandpa, I thank you for your silent presence of love and support. Thank you all. Mission accomplished!
Acknowledgements

This thesis would not have been completed without the expertise of the people I would like to acknowledge. To Dr. Tsu-Yin Wu, many thanks for your guidance in so many ways throughout all the phases of this thesis. Thank you also for keeping me on track so that I could finish on time. Also to Michael Williams, many thanks to the advice I received from the moment I arrived at Eastern Michigan University. Without the both of you, to say this thesis would not have been completed would be an understatement.
Abstract

Among Korean-American women, breast cancer is the second leading cause of death. Although their incidence is lower than that of Caucasian women, Korean-American women are more likely to be diagnosed at more advanced stages of breast cancer. One of the suggested methods in breast cancer prevention is early detection and routine screenings. The present study was conducted to explore the impact of breast cancer educational workshop on breast cancer knowledge and breast self-examination practices among Korean-American women. The knowledge of breast cancer and the health beliefs (perceived benefits, perceived barriers, and perceived self-efficacy) was examined before and after the educational workshop. The results indicated that the educational workshops have a positive influence on breast cancer knowledge and health beliefs.
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Chapter I. Introduction

The Asian-American population in the United States (U.S.) is growing rapidly. According to the U.S. Census Bureau (2002), Asian-Americans account for 3.6% of the total U.S. population, which is about ten million people compared with 3.7 million Asian-Americans in 1980 (U.S. Census Bureau, 2002). The Center for Disease Control and Prevention (2010) defined Asian-Americans as the people residing in the U.S. who have their origins in any of the original peoples in Asia. Among Asian-Americans, Korean-Americans are one of the fastest growing ethnic groups within the population. In 1980, there were only 300,000 Korean-Americans in the U.S., a number which has grown to 1.6 million as of 2008, 0.5% of the total U.S. population (CDC, 2010).

In the U.S., breast cancer is the most frequently diagnosed cancer among women, being second only to skin cancer. It is the second leading cause of cancer death (15%) among American women (American Cancer Society [ACS], 2010). Similarly, in Korea, breast cancer is the second leading cause of cancer deaths (21%) among Korean women (National Cancer Information Center in Korea, 2010). Although it has been shown that Asian women (81.6/100,000) have a lower incidence than Caucasian women (101.1/100,000), they have an increased incidence found in later stages (stage II and up: Korean women - 50.1%) of breast cancer than Caucasian women (38%). The later detection increases the mortality rate of breast cancer in Asian women (Korean Breast Cancer Society, 2008; National Cancer Information Center in Korea, 2010; National Cancer Institute, 2010).

There have been numerous research studies conducted to examine ways to reduce the incidence and mortality rate of breast cancer. It has been well noted that early detection and
screening, which are secondary preventions, may significantly reduce the incidence and mortality rate (ACS, 2010; Lee, Lee, Shin, & Song, 2004; Tae & Kim, 2003).

According to Smith, Saslow, and Sawyer (2003) and the Korean Breast Cancer Society (2008), there are four methods for early detection and screening for breast cancer: Breast Self-Examination (BSE), breast cancer awareness, clinician breast examination, and mammogram. Among them, breast cancer awareness may be one effective method for primary prevention of breast cancer. The more knowledge disseminated about breast cancer, the lower the mortality rate of breast cancer (Husaini et al., 2002; Park, Ryu, & Choi, 2003).

The U.S. has been very active in Breast Cancer Awareness Campaigns (BCAC; King, 2006). Korea also has been participating in BCAC (Korean Breast Cancer Society, 2008). There are many programs promoting BCAC, such as health fairs, breast cancer workshops, free clinician breast clinics, and fund raising events such as breast cancer marathons. Among these programs, one of the most widely used programs is educational workshops in U.S. (Husaini et al, 2002; King, 2006; Smith, Saslow, & Sawyer, 2003) and Korea (Lee, Lee, Shin, & Song, 2004; Tae & Kim, 2003). In a breast cancer workshop/educational program, there is often a lecture presentation on breast cancer and early detection and screening. Additionally, it may include BSE demonstration and practice on a simulated breast model (U.S.: Ceber, Turk, & Ciceklioglu, 2009; Budakoglu & Ozdemir, 2007; Korea: Lee, Lee, Shin, & Song, 2004; Park, Ryu, & Choi, 2003; Tae & Kim, 2003).

There have also been studies conducted on the use of such educational programs among different ethnic groups, which revealed positive influence on early detection and screening practices (Budakoglu & Ozdemir, 2007; Ceber, Turk, & Ciceklioglu, 2009; Husaini et al., 2002; Lee, Lee, Shin, & Song, 2004; Park, Ryu, & Choi, 2003; Sadler, Ryujin, Ko, & Nguyen, 2001;
Tae & Kim, 2003). However, only a few studies have been done to examine the impact of educational programs, such as workshops, on early detection practices among Korean-American women.

Furthermore, nursing plays an important role in education. Nurses teach individuals, families, and communities about health promotion and disease prevention. Ackley, Ladwig, Swan, and Tucker (2008) define health education as "developing and providing instruction and learning experiences to facilitate voluntary adaption of behavior conducive to health in individuals, families, groups, or community" (p. 415). Health-promoting and health-seeking behaviors are enhanced through education. Thus, education, theoretically, results in positive client outcomes, such as health-promoting behaviors (Ackley, Ladwig, Swan, & Tucker, 2008).

Purpose of the Research

The purpose of the study was to explore the impact of breast cancer educational workshops on breast cancer knowledge and breast self-examination practices among Korean-American women. This study was conducted in the hope of adding knowledge to the body of nursing knowledge.

Research Questions

1. What is the level of breast cancer knowledge, perceived benefits, perceived barriers, and self-efficacy among Korean-American women before and after breast cancer educational workshops?

2. What is the frequency of breast self-examination practice among Korean-American women before and after breast cancer educational workshops?
3. What is the relationship of breast cancer knowledge and the early detection practice of breast self-examination among Korean-American women?

4. What influence does the educational workshop have on breast cancer knowledge, perceived benefits, perceived barriers, and self-efficacy among Korean-American women?

5. What influence does the knowledge have on breast self-examination practice and health promotion behavior?
Chapter II. Review of Literature

Incidence

According to the ACS (2010), breast cancer is the second most frequently diagnosed cancer in women. The number of diagnosed cases each year increased from 1994 to 1999 and decreased 2.0% each year from 1999 to present day. Even though breast cancer is the second leading cause of cancer deaths among American women, the death rate due to breast cancer has been decreasing since the 1990s. In the 1960s, the five-year survival rate was 63%; in the present day, the five-year survival rate increased to 90% with 98% for the localized stage (stage I) breast cancer (ACS, 2010). According to the ACS (2010) and National Cancer Institute (2010), the decrease of the incidence rate, especially in the later stages (Stage III and up), and the increase of the five-year survival rate is very much related to early detection and the public's breast cancer awareness.

According to the National Cancer Information Center in Korea (2010), breast cancer is the second leading cause of cancer deaths among Korean women (21%). There was a slow increase of incidence, from 5,703 cases in 1999 to 11,606 in 2007, equating to a 43.9% increase. However, in 2008, the incidence has decreased. Accordingly, the five-year survival rate has increased from 1993 (72.2 per 100,000) to 2007 (84.4 per 100,000) or 12.2% (National Cancer Information Center in Korea, 2010).

According to the National Cancer Institute (2010), Korean, American Indian, and Vietnamese women have the lowest breast cancer incidence rate in the U.S. In 2006, the incidence of breast cancer in Caucasian women living in America was 101.1 per 100,000 and for Korean women living in Korea was 34.7 per 100,000. In 2007, the incidence in Caucasian women living in America was 123.5 per 100,000 and Asian-Pacific-Islander women living in
America was 81.6 per 100,000. The mortality rate was 23.9 for Caucasian women and 12.5 for Asian-Pacific-Islander women per 100,000 (National Cancer Information Center in Korea, 2010; National Cancer Institute, 2010).

Although Korean women have a lower breast cancer incidence than that of American women, Korean women have a lower five-year survival rate (Korean Breast Cancer Society, 2008; National Cancer Institute, 2010). This is due to the fact that there are more Koreans being diagnosed in later stages of breast cancer than American women (Korean Breast Cancer Society, 2008; National Cancer Institute, 2010). According to data from the Korean Breast Cancer Society (2008), in 2006, 37.9% of that year's breast cancer (Appendix A) was diagnosed at stage I (localized stage), 35.7% at stage II (regional stage), and 14.4% at stage III and up (distant/metastasized stage). The five-year survival rate in 2006 was 99% of those who were diagnosed at stage I, 89% at stage II, 59% at stage III, and 28% at stage IV (Korean Breast Cancer Society, 2008). Conversely, according to the National Cancer Institute (2010), 60% of breast cancer cases in 2006 in the U.S. were diagnosed at stage I, 33% at stage II, and 5% at stage III and up. The five-year survival rate (Appendix A) in 2006 was 98% of all those who were diagnosed at the localized stage, 83.6% at the regional stage, and 23.4% at the distant stage (National Cancer Institute, 2010).

The incidence of breast cancer in Korean women has started to show a slow decrease from 2008, and the five-year survival rate has shown an increase. Although Asian women have a lower incidence rate than Caucasian women, Korean women are more likely to be diagnosed at later stages (Stage III and up; Korean Breast Cancer Society, 2008; National Cancer Institute, 2010). Research has shown that early detection has played an important role in reducing the incidence of cancers detected at later stages (Korean Breast Cancer Society, 2008; National
Early Detection

It has been widely shown that one of the most effective contributing factors behind decreasing the incidence rate and increasing the five-year survival rate in breast cancer is early detection. Many organizations, including the ACS and the Korean Breast Cancer Society, suggest BSE (every month from 20 years old and up), breast cancer awareness (for all ages), clinician breast examination (every 2-3 years from 20-39 years old, annually from 40 years old and up), and mammogram (annually from 40 years old and up) as the early detection methods (Korean Breast Cancer Society, 2008; Smith, Saslow, & Sawyer, 2003).

Breast cancer awareness, which is suggested for all ages, is defined as the knowledge about breast health and breast cancer as well as that about breast cancer screening. This is important because the more knowledgeable women are about breast cancer, the lower the mortality rate of breast cancer (Husaini et al., 2002; Park, Ryu, & Choi, 2003). BCAC first started in the 1970s. In the mid-1980s, Breast Cancer Awareness Month was established as October of each year. In the 1990s, Charlotte Haley, who had suffered from breast cancer herself along with many of her relatives, started handing out cards with peach-colored ribbons. In the card, she stated that the National Cancer Institute spends about $1.8 billion each year; however, only 5% is used for prevention (King, 2006). According to the report by the National Cancer Institute (1992), the total budget was $1.9 billion, 5.9% of which was spent on cancer prevention and control in 1992. Through those cards and ribbons, Haley raised significant attention towards breast cancer awareness and prevention. Accordingly, the Susan G. Komen Foundation was established and many other breast cancer support groups were founded, which contributed to the
BCAC becoming more active (King, 2006). Moreover, the National Cancer Institute (2009) spent 7.8% of the total budget of 2009 on cancer prevention and control alone, although not all was directed to breast cancer.

Although it has not been very active, Korea started BCAC in the mid-1990s. Many organizations, such as the Korean Cancer Society, the Korean Oncology Nursing Society, and the Korean Breast Cancer Foundation, promoted the public's awareness of breast cancer. While the incidence of breast cancer increased in Korean women by 43.9% from 1999 to 2007, the five-year survival rate also showed an increase of 12.2%. One of the reasons for the increase in 5-year survival rate is BCAC. Due to these campaigns, more women are being diagnosed at earlier stages of breast cancer, and the five-year survival rate has become higher. In 1996, 23.8% of the cases were diagnosed at stage I. The incidence for stage I had increased to 37.9% in 2007 (Korean Breast Cancer Society, 2008). Furthermore, the first Global Breast Cancer Conference was held in Korea. The Global Breast Cancer Conference is a multidisciplinary conference to share information on breast cancer from globally renowned scholars and to provide advanced information to other Asian countries. The Global Breast Cancer Conference has been actively participating in the BCAC in Korea, such as educational programs and fund-raising events (Global Breast Cancer Conference, 2010).

Many research studies have shown that early detection due to screening and awareness programs has led to a decrease in the incidence rate of later stages in breast cancer and an increase in the five-year survival rate (Korean Breast Cancer Society, 2008; Smith, Saslow, & Sawyer, 2003).
Educational Program

There are many programs in BCAC, such as health fairs, breast cancer workshops, free clinician breast clinics, and fund-raising events such as breast cancer marathons. Among these programs, education is the most frequently used component: teaching women about the signs and symptoms of breast cancer and early detection methods, such as the BSE, clinician breast exam, and mammograms (Husaini et al., 2002; King, 2006; Lee, Lee, Shin, & Song, 2004; Smith, Saslow, & Sawyer, 2003; Tae & Kim, 2003). A breast cancer workshop or educational program often includes a lecture presentation on breast cancer and early detection. Additionally, it may also include BSE demonstration and practice on a simulated breast model (Budakoglu & Ozdemir, 2007; Ceber, Turk, & Ciceklioglu, 2009; Lee, Lee, Shin, & Song, 2004; Park, Ryu, & Choi, 2003; Tae & Kim, 2003).

There have been a few studies conducted that demonstrate how breast cancer knowledge can positively influence the behavior or practice of early detection in breast cancer among Korean women; thus, they recommend more education (Lee, Lee, Shin, & Song, 2004; Park, Ryu, & Choi, 2003; Sadler, Ryujin, Ko, & Nguyen, 2001; Tae & Kim, 2003). There also have been several studies conducted to determine the effect of education in breast cancer among other ethnic groups, such as Turkish women, African-American women, and Chinese-American women. All of the results revealed an increase in the knowledge of the participants and their health-seeking behaviors (Budakoglu & Ozdemir, 2007; Ceber, Turk, & Ciceklioglu, 2009; Husaini et al., 2002).

As demonstrated in previous studies, breast cancer education does enhance the knowledge of women. Moreover, the increase of knowledge is expected to enhance health behaviors and practice of early detection methods in many ethnic groups, such as African-

Knowledge Gap

Although there have been many studies examining the influence of educational programs of breast cancer on health behaviors and early detection practices, few studies were found among Korean-American women. Furthermore, the one study that was identified by the investigator acknowledged language barrier as an important limitation because the education and information given were in English (Sadler, Ryujin, Ko, & Nguyen, 2001). Therefore, in this study, education was conducted in Korean to the Korean-American participants to eliminate the language barrier.
Chapter III. Theoretical Framework

The Health Belief Model (HBM) guided the study. The HBM was first developed by social psychologists who were working in the United States Public Health Services in the 1950s. Although the Public Health Services had offered free tuberculosis screening, the program achieved little success. In order to analyze the reason behind this unsuccessful event, the social psychologists examined the motivations and barriers related to the people's participation in the program, which was the start of the HBM. Later, the HBM was further developed by many researchers in an attempt to illustrate the preventative health behaviors in individuals (Glanz, Rimer, & Su, 2005).

Originally in the HBM there were four concepts in individual beliefs: 1) perceived susceptibility (individual's opinion of the likelihood of getting an illness), 2) perceived severity (individual's opinion of the seriousness regarding an illness and its consequences), 3) perceived benefits (individual's belief in facilitating the advised action to decrease the risk or severity of an illness), and 4) perceived barriers (individual's opinion of the costs in taking the advised action). In the 1990s, two more concepts were added: 5) cues to action (factors to motivate an individual's readiness to change) and 6) self-efficacy (confidence in individual's capability to take the advised action; Champion, 1984; Glanz, Rimer, & Su, 2005; Lee, Lee, Shin, & Song, 2004).

According to the HBM, there are six modifying factors that directly affect an individual's health belief. They are the individual's age, gender, ethnicity, personality, socioeconomic status, and specific knowledge related to the issue. These factors also influence an individual's health behavior indirectly (Glanz, Rimer, & Viswanath, 2008).
There have been many studies conducted using this particular model, especially in various ethnic groups. There are also scales and tools developed from this model that aid in assessing and measuring a patient's need. For instance, the Champion HBM Scale was developed to assess the knowledge and performance of BSE according to the concepts in HBM (Champion, 1984; Lee, Kim, & Song, 2002). Another instrument is the Asian-American Women Mammogram Screening Beliefs Questionnaire by Wu and Yu (2003), which was developed to assess the barriers and beliefs on mammogram screening among Asian-American women.

In this study, the investigator focused on one of the modifying factors (knowledge), three of the concepts (perceived benefits, perceived barriers, and self-efficacy), and their effects on an individual's health behavior (shown in bold on Figure 1).
Chapter IV. Methods

Research Design

This study used a one-group pretest-posttest pre-experimental design. According to Burns and Grove (2005), this is one of the most commonly used study designs. In this design, a group of the desired population is gathered and a pretest is administered. A treatment is provided to the same group, followed by a posttest. The score from the posttest is compared to the score from the pretest (Burns & Grove, 2005).

Rationale

One strength of using this design is that it is possible to find out the effectiveness of the treatment by comparing the scores between the pretest and posttest of the same group of subjects (Burns & Grove, 2005). Moreover, because the pretest and posttest were given and collected in the same setting, there is a higher chance of receiving all the responses of both tests.

However, one of the weaknesses of this design is that because there is only one group, there will be no separate group that serves as a control. Therefore, the validity of the findings might be slightly weaker than that in those studies with a stronger design, such as an experimental design (Burns & Grove, 2005). In the present study, because of the limited number of Korean-American women in the area, there were not enough subjects to create separate experimental and comparison groups.

Sampling

Convenience sampling was used in the study. In convenience sampling, anyone may enroll in the study without prejudice until the desired sample size is obtained. One of the
strengths of using this particular sampling is that it is inexpensive and accessible. However, it may provide limited opportunity for bias control (Burns & Grove, 2005).

Fifty Korean-American women in Washtenaw County, Michigan, participated in the study through three separate workshops. The workshops were publicized by placing flyers at various places where the Korean-American women were likely to frequent, such as grocery stores, churches, and restaurants in Ann Arbor and Ypsilanti, Michigan. The flyer contained information on the workshop along with the investigator's name and the supervising faculty's contact information. At the workshop, the women were asked to participate in the study.

Inclusion/Exclusion Criteria

Everyone who was present at the workshop was asked to participate in the study. All participants were women who self-identified as Korean-American. Since the workshops were given in Korean, the participants had to be able to comprehend the language in both spoken and written format. Participants were 18 years of age or older.

Ethical Considerations

Approval was sought by the investigator prior to initiating the study through the Human Subjects Review Committee (HSR) of Eastern Michigan University's (Appendix I). Approval was granted and workshops were held only after that time. Participation in the study was on a voluntary basis. An informed consent form (Appendix B) was provided to the participants. The consent detailed the title, purpose, procedure, benefits, risks, and confidentiality of the study. The investigator had translated the consent into Korean for the study (Appendix C). The translated consent form was back-translated into English by another translator to ensure the
accuracy of the information. The translator was fluent in the Korean language in both speech and writing.

In order to ensure the confidentiality of the participants, there were no questions requiring personal identifying information. The questionnaires were coded by the workshop: workshop #1, #2, and #3. In order to differentiate the questionnaires from the pre-test and the post-test, the pre-test was printed on white paper and the post-test was printed on yellow paper. The collected data were stored in a secured place and were only accessed by the investigator and the investigator's advisors. The participants were also provided with the contact information of the investigator's advisor, whom they may contact if they have any questions in regard to the study.

**Procedures**

Upon receiving the HSR's approval, three workshops were scheduled between May and July 2011. At the workshop, a pretest was administered to examine the participants' knowledge, beliefs, risks, perceived benefits, perceived barriers, and self-efficacy of breast cancer and breast cancer screenings. After the pretest, a PowerPoint lecture on breast cancer and breast cancer screening was provided to the participants (Appendix D). Following the lecture, a demonstration and a practice session on BSE were provided using a breast model. The investigator presented the lecture and the BSE demonstration in Korean. Handouts, such as a BSE steps door hanger in Korean by Susan G. Komen and a brochure about women's breast health by the investigator, were also provided to participants. Additionally, a clinician breast examination by a nurse was offered to all participants as an option. Afterwards, a posttest was administered to examine any changes in the participants' knowledge, perceived benefits, perceived barriers, and self-efficacy of breast cancer. A $10.00 gift certificate was given to all the participants who completed the
study to thank them for their participation.

Instrumentation

The study questionnaire was adapted from the Asian-American Mammogram Screening Beliefs Questionnaire by Wu and Yu (2003) and the Champion's Health Belief Model Scale related to breast cancer and BSE by Champion (1993). Both of these instruments followed the concepts of the HBM (Champion, 1993; Wu & Yu, 2003).

The Asian-American Mammogram Screening Beliefs Questionnaire by Wu and Yu (2003) is a 42 item self-administered questionnaire. It consists of three categories: 1) demographics, 2) health beliefs and knowledge, and 3) behavioral outcomes. The reliability of this instrument was tested with the Cronbach alpha, which ranged from 0.75 to 0.90. The validity was supported by confirmatory factor analysis (Wu & Yu, 2003). From the 42 items, 27 items of the demographics and the health beliefs and knowledge (Wu & Ronis, 2009) were adapted by the investigator for this study (Appendix E). Permission to use and revise the scale was obtained by the investigator from Wu (Appendix H).

The Champion's Health Belief Model Scale by Champion (1993) consists of 42 questions in the categories of the HBM concepts: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy. The reliability of this instrument was tested through the Cronbach alpha, which ranged from 0.80 to 0.93. The validity was supported with confirmatory factor analysis (Champion, 1993). From the 42 items, 19 items of the perceived benefits, perceived barriers, and perceived self-efficacy were adapted by the investigator for this study (Appendix E). Permission to use and revise the scale was obtained by the investigator from Champion (Appendix H).
The final study questionnaire contains 43 questions (Appendix F) that measure the major concepts of HBM: eight items on the demographics (characteristics of the participants), five items on the knowledge of the breast cancer screenings, one item on the BSE behavior, eight items on the knowledge about breast cancer risks, five items on the knowledge about the recommendations for frequency of mammography and BSE screenings, five items on perceived benefits, eight items on perceived barriers, and three items on self-efficacy. The questionnaire took approximately 10-20 minutes to complete. The participants completed the questionnaire in Korean with an option of an English version depending on their ability and comfort level with the language.

In the current study, perceived benefits were measured with six items, perceived barriers with six items, and perceived self-efficacy with seven items, and these items used Likert scale. Each item for the perceived benefits and perceived self-efficacy was scored as one for strongly disagree, two for disagree, three for neutral, four for agree, and five for strongly agree. Each item for the perceived barriers was scored as one for strongly agree, two for agree, three for neutral, four for disagree, and five for strongly disagree. The total score for the health beliefs ranged from 19 to 95. The knowledge was measured by five items on breast cancer screening, one item on BSE behavior, eight items on breast cancer risk, and five items on the recommendation for the frequency of mammography and BSE. The knowledge was measured using multiple choice questions with five different choices and one correct answer. Each item regarding the knowledge was scored one when correctly answered and others as zero. The total score for the knowledge ranged from zero to twenty-three. These items were put together into a three-page questionnaire by the investigator for this study (Appendix E).
Reliability of the Study Questionnaire

The reliability of the instruments used in the study was tested with this sample using the Cronbach's alpha. The range of the Cronbach's alpha for the instruments was 0.82 to 0.91, which signified that the instruments used were reliable (see Table 1).

To use this questionnaire with Korean-American women, translation of the questionnaire into Korean is advised. Translation to a targeted population's own language is highly recommended when an instrument was originally developed in another language (Lee, Kim, & Song, 2002). Another reason for translation in this specific study was the fact that many Korean-American women who participated in the study had limited ability in speaking and reading English.

When translating an instrument into a targeted language, the technique of back translation is the most common and highly recommended due to its validity and reliability. This technique uses at least two independent translators, which decreases the errors of interpretation (Lee, Kim, & Song, 2002). The investigator of this study rendered the instruments of both Wu and Yu (2003) and Champion (1993) into Korean. A different translator translated the Korean version back into the original language, English. Any discrepancies found between the two translations were corrected (Appendix G). A translator, fluent in Korean language in both speech and writing, was available to the investigator for translation and verification of accuracy of the instruments.
Table 1

*Reliability of the Instruments*

<table>
<thead>
<tr>
<th></th>
<th>No. items</th>
<th>Cronbach's α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of breast cancer risk</td>
<td>8</td>
<td>0.82</td>
</tr>
<tr>
<td>Knowledge of recommendations for</td>
<td>10</td>
<td>0.91</td>
</tr>
<tr>
<td>frequency of mammogram and BSE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of recommendations for</td>
<td>6</td>
<td>0.90</td>
</tr>
<tr>
<td>frequency of BSE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived benefits</td>
<td>6</td>
<td>0.90</td>
</tr>
<tr>
<td>Perceived barriers</td>
<td>6</td>
<td>0.85</td>
</tr>
<tr>
<td>Perceived self-efficacy</td>
<td>7</td>
<td>0.89</td>
</tr>
</tbody>
</table>
Data Analysis Plan

The questionnaires were analyzed using the Statistical Package for the Social Sciences (SPSS) software program, version 19.0 (SPSS Inc., Chicago, IL). The data were entered by the investigator; the entry was reviewed again by the investigator and an expert in statistics to ensure the accuracy of the data. The reliability of the instruments used was analyzed using Cronbach's alpha. A descriptive analysis was used for the characteristics of the participants. Moreover, the bivariate correlational analysis was used to measure the relationship between the breast cancer knowledge and BSE practices. The bivariate correlational analysis was also used to measure the relationship between the breast cancer knowledge and the health beliefs (perceived benefits, perceived barriers, and perceived self-efficacy). Pair T-test was used to determine the influence of the educational workshop on the breast cancer knowledge and health beliefs. It was also used to determine the differences between the breast cancer knowledge and BSE practices with the gathered data.
Chapter V. Results

Demographic Characteristics of the Sample

Participants were 50 Korean-American women (10 in workshop #1, 20 in workshop #2, and 20 in workshop #3). All the participants completed their questionnaires for pre-test and post-test. The age of the participants ranged from 20 to 81 years, with a mean of 46.5 (SD=18.50). There were 19 participants (38%) under the age of 40 years and 30 (60%) were 40 years or more. One participant did not give her age (2%). The mean number of years the participants have resided in the U.S. was 17.5 years. Of all the participants, 38% (n=19) stated that their stay in the U.S. was five years or less, 20% (n=10) was between six and fifteen years, 40% (n=20) was more than 16 years, and 2% (n=1) were born in the U.S. Most of the participants finished their education in university/college or higher (68%; n=34). There were 18 participants who were housewives (36%), 11 students (22%), 6 retirees (12%), and 2 teachers (4%). Most of the participants had U.S. health insurance (86%; n=43). Additionally, there were 26 (52%) who stated that they had been diagnosed with breast cancer. Within that 26 women, 15 (57.7%) stated that they were diagnosed with breast cancer one year ago or less. Thirteen (26%) stated that they have a family history of breast cancer. Most of them stated that it was their mother who was diagnosed with breast cancer (n=7; 53.8%). Twenty-two stated that their close friend was diagnosed with breast cancer (see Table 2).
Table 2

Demographic Characteristics of the Participants (n=50)

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td>46.53 ± 18.50</td>
</tr>
<tr>
<td>Under 40 years</td>
<td>19</td>
<td>38.0</td>
<td></td>
</tr>
<tr>
<td>40 years or more</td>
<td>30</td>
<td>60.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td><strong>Years of resident in US</strong></td>
<td></td>
<td></td>
<td>17.41 ± 16.74</td>
</tr>
<tr>
<td>0-5 years</td>
<td>19</td>
<td>38.0</td>
<td></td>
</tr>
<tr>
<td>6-15 years</td>
<td>10</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td>16+ years</td>
<td>20</td>
<td>40.0</td>
<td></td>
</tr>
<tr>
<td>US born</td>
<td>1</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>15</td>
<td>30.0</td>
<td></td>
</tr>
<tr>
<td>University/College</td>
<td>29</td>
<td>58.0</td>
<td></td>
</tr>
<tr>
<td>Graduate Studies</td>
<td>5</td>
<td>10.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td>18</td>
<td>36.0</td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>11</td>
<td>22.0</td>
<td></td>
</tr>
<tr>
<td>Retired</td>
<td>6</td>
<td>12.0</td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>2</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>8.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>9</td>
<td>18.0</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>---</td>
<td>------</td>
<td></td>
</tr>
</tbody>
</table>

US health insurance

<table>
<thead>
<tr>
<th>Yes</th>
<th>43</th>
<th>86.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>7</td>
<td>14.0</td>
</tr>
</tbody>
</table>

Diagnosis of breast cancer

<table>
<thead>
<tr>
<th>Self</th>
<th>26</th>
<th>52.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>13</td>
<td>26.0</td>
</tr>
<tr>
<td>Friend</td>
<td>22</td>
<td>44.0</td>
</tr>
</tbody>
</table>
Knowledge and Practice of Breast Cancer Screenings

Most of the participants in the study reported that they have heard of mammogram (78%; n=39) and BSE (84%; n=42). However, the knowledge about when to start the annual mammogram was low (16%; n=8). Similarly, the actual knowledge on the recommended frequency of BSE was low (36%; n=18). The question inquiring about the practice of mammogram was targeted to those who were 40 years of age and older (n=32). The participants reported practicing mammogram annually as recommended was 50% (n=16). The question about the practice of the recommended monthly BSE was for all the participants; the BSE practice was 6% (n=3; See Table 3).
Table 3

Knowledge and Practice of Breast Cancer Screenings (n=50)

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heard of mammogram</td>
<td>39</td>
<td>78.0</td>
</tr>
<tr>
<td>Correctly know the starting age for annual mammogram</td>
<td>8</td>
<td>16.0</td>
</tr>
<tr>
<td>Heard of BSE</td>
<td>42</td>
<td>84.0</td>
</tr>
<tr>
<td>Correctly know frequency of BSE</td>
<td>18</td>
<td>36.0</td>
</tr>
<tr>
<td>Practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mammogram practice</td>
<td>16/32#</td>
<td>50.0</td>
</tr>
<tr>
<td>BSE practice</td>
<td>3/50</td>
<td>6.0</td>
</tr>
</tbody>
</table>

# Participants who were 40 years and older
Influence of Educational Workshop on the Study Variables

After the workshop, the levels of mean scores for the knowledge of the recommendations for the frequency of mammogram and BSE, perceived benefits and self-efficacy increases and the perceived barriers' mean scores decreases (See Table 4). The comparison between the pre-test and the post-test knowledge of breast cancer risk and recommendations for screenings (mammogram and BSE) showed a significant increase ($p$ value<.001). The comparison between the pre-test and the post-test knowledge of the health beliefs (perceived benefits, perceived barriers, and perceived self-efficacy) also revealed a significant increases (all the $p$ values<.001; see Tables 4).
Table 4

Knowledge of Breast Cancer Risk, Knowledge of Recommendations for Frequency of Mammogram and BSE, Perceived Benefits, Perceived Barriers, and Perceived Self-Efficacy

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean ± SD</th>
<th>t value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of breast cancer risk</td>
<td>Pre-test</td>
<td>50</td>
<td>3.20 ± 1.91</td>
<td>-10.544</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>50</td>
<td>6.86 ± 1.33</td>
<td></td>
</tr>
<tr>
<td>Knowledge of recommendations for frequency of mammogram &amp; BSE</td>
<td>Pre-test</td>
<td>50</td>
<td>3.60 ± 3.33</td>
<td>-9.495</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>50</td>
<td>8.42 ± 2.04</td>
<td></td>
</tr>
<tr>
<td>Perceived benefits</td>
<td>Pre-test</td>
<td>50</td>
<td>20.58 ± 5.22</td>
<td>-5.336</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>50</td>
<td>24.98 ± 3.03</td>
<td></td>
</tr>
<tr>
<td>Perceived barriers</td>
<td>Pre-test</td>
<td>50</td>
<td>23.54 ± 4.39</td>
<td>-3.069</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>50</td>
<td>26.10 ± 4.07</td>
<td></td>
</tr>
<tr>
<td>Perceived self-efficacy</td>
<td>Pre-test</td>
<td>50</td>
<td>16.44 ± 6.03</td>
<td>-11.251</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>50</td>
<td>29.20 ± 4.57</td>
<td></td>
</tr>
</tbody>
</table>
Relationships between Breast Cancer Knowledge and BSE Practices

An independent t-test was performed, and no significant relationship was found between the breast cancer knowledge (about breast cancer and recommendation of BSE and mammography frequency) and BSE practices ($t = -0.581$, $p$ value=.564; see Table 5). It is interesting to note the trend that the knowledge score is higher in the group who did not practice BSE.
Table 5

*Relationship between Breast Cancer Knowledge and BSE Practice*

<table>
<thead>
<tr>
<th>Knowledge Practice as recommended</th>
<th>n</th>
<th>Mean ± SD</th>
<th>t value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>as recommended</td>
<td>3</td>
<td>5.33 ± 4.73</td>
<td>-.581</td>
<td>.564</td>
</tr>
<tr>
<td>Do not practice as recommended</td>
<td>47</td>
<td>6.89 ± 4.50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Relationships between Breast Cancer Knowledge and Health Beliefs

When the relationships between the knowledge of breast cancer and the health beliefs (perceived benefits, perceived barriers, and perceived self-efficacy) were examined through Pearson Correlation, both perceived benefits \((r=.387, p=.006)\) and perceived self-efficacy \((r=.445, p=.001)\) showed a positive significant relation. However, there was no significant relation between the breast cancer knowledge and the perceived barriers \((r=.253, p=.077)\); see Tables 6).
Table 6

Correlation of Breast Cancer Knowledge and Perceived Benefits, Perceived Barriers, and Perceived Self-Efficacy

<table>
<thead>
<tr>
<th>Breast cancer knowledge</th>
<th>Pearson correlation ($r$)</th>
<th>Perceived benefits</th>
<th>Perceived barriers</th>
<th>Perceived self-efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$p$ value</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breast cancer knowledge</td>
<td>.387</td>
<td>.253</td>
<td>.445</td>
<td></td>
</tr>
<tr>
<td>$p$ value</td>
<td>.006</td>
<td>.077</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>
Influence of the Educational Workshop on the Future BSE practices and Health Promoting behaviors

Before the workshop, the participants were asked in the questionnaire about their BSE practices. Only three answered that they were performing monthly BSE as recommended. Following the PowerPoint presentation on breast cancer and early detection, the participants were asked about the recommendation of all the early detection methods and its timings. Eighty percent of the participants gave a correct oral response of their understanding of the early detection methods and timings. This was again addressed during the individual clinician breast examinations. All the participants participated in the clinician breast examination.
Chapter VI. Discussion

The results of this study confirmed that the breast cancer educational workshop had a positive influence on the Korean-American women's knowledge on breast cancer and early detection, as well as the health beliefs: perceived benefits, perceived barriers, and perceived self-efficacy (Lee, Lee, Shin, & Song, 2004; Park, Ryu, & Choi, 2003; Sadler, Ryujin, Ko, & Nguyen, 2001; Tae & Kim, 2003).

It was also suggested that there was a significant relationship between breast cancer knowledge and perceived benefits. Many participants stated that they did not realize the importance of BSE and practicing it monthly. When the knowledge of breast cancer was low, the women failed to recognize the benefits of BSE. This was reiterated at the end of the workshop.

The study also demonstrated a significant relationship between breast cancer knowledge and perceived self-efficacy. The lower the breast cancer knowledge, the lower the confidence of BSE practice, which may indicate that they were less likely to practice BSE unless they knew the correct way of performing BSE.

On the contrary, there was no significant relationship between breast cancer knowledge and perceived barriers. This finding is consistent with that observed in the previous study conducted by Lee, Lee, Shin, and Song (2004). The absence of any significant relationship between them may be attributed to the social-cultural background rather than simple change of knowledge, as suggested by these investigators (Lee, Lee, Shin, & Song, 2004).

The workshops were performed in Korean. The language is in fact one of the important barriers to the access of care (Sadler, Ryujin, Ko, & Nguyen, 2001). The first workshop flyer that was distributed to the community included only the English names on the contact information section. Although ten women were present in the workshop, none had attempted to contact the
investigator. For the flyers for workshop #2 and #3, the investigator's Korean name was written on the flyers. Several of the women who participated in the workshop (#2 and #3) contacted the investigator for more information on the workshop. The workshops were also conducted in Korean. More than half of the participants confirmed that since there was a Korean name on the flyer, they felt more comfortable contacting and participating in the workshop.

More than 15 participants stated that when they knew someone, whether a family member or a friend, was diagnosed with breast cancer they were more aware of health-seeking behaviors and had a willingness to learn. Moreover, they added after the workshop that they would want to share what they have learned and encourage the others to join the workshops. These results are consistent with those of Sadler, Ryujin, Ko, and Nguyen (2001) on the women's willingness to learn and share information through educational programs.

One of the surprising results found in the study was the number of Korean-American women who were diagnosed with breast cancer who attended the workshops (n=26; 52%). They must have been more interested in joining the workshop. However, this may well have been a misunderstanding of the question "have you ever been diagnosed with breast cancer?" Some indeed answered as "yes" for this particular question and answered "no" to "have you ever heard of mammogram" or "never" to "when was your last mammogram done?" They could have been misunderstood. The investigator was not able to verify this issue with follow-up because the questionnaires did not contain any identification or contact information about the participants. In future studies, the researcher should clarify and verify the response for the question regarding the diagnosis of breast cancer on site when there were face-to-face opportunities for verification.

Some of the previous studies suggested embarrassment as a frequently identified barrier (Lee, Lee, Shin, & Song, 2004; Park, Ryu, & Choi, 2003; Tae & Kim, 2003). However,
embarrassment was identified by only 12% of the women (n=6) in the study as a potential barrier to screening. This may be related to the fact that everyone participated in the clinician breast examination after the PowerPoint lecture. They actually wanted to learn many things about breast cancer and to seek healthy behaviors.

The relationship between the breast cancer knowledge and the BSE practices did not show a positive relation. This was a different result from other studies that showed that when knowledge was high, health-seeking behaviors, such as breast cancer screenings, were increased (Budakoglu & Ozdemir, 2007; Ceber, Turk, & Ciceklioglu, 2009; Husaini et al., 2002; Lee, Lee, Shin, & Song, 2004; Park, Ryu, & Choi, 2003; Sadler, Ryujin, Ko, & Nguyen, 2001; Tae & Kim, 2003). This study's result might have been affected by the fact that there were very few participants who practiced BSE (n=3). Additionally, there was no follow-up on the participants for their future practices. However, the increase of perceived self-efficacy after the educational workshop might be an indicator for BSE practices on their own in the future. Moreover, the comments after the workshop suggested they would now practice monthly BSE since they knew the importance and steps of BSE.

Limitations and Future Research Recommendations

The study has a few limitations. First of all, the number of Korean-American women in the area was relatively small. It has been suggested that the biases of the convenience sampling can be reduced with a large number of participants (Glanz, Rimer, & Viswanath, 2008). Additionally, the same participants served as both intervention and comparison groups, which might make the validity of the findings slightly weaker (Burns & Grove, 2005). Future studies
are needed with a larger sample size and independent groups for experimental and comparison groups.

In addition, the study lacked a follow-up on these women to evaluate the future practices of BSE. This was in part due to the issue of confidentiality, so that there was no identifying information of the participants. In the future studies, there should be follow-up, either with phone or mail survey, on the BSE practices of the participants.

One more limitation was the fact that some of the participants might have misunderstood the meaning of the question on "have you ever been diagnosed with breast cancer?" This needed to be clarified during the workshop.

Implications for Education

Through this study, it was demonstrated that education, such as workshops, is important in increasing breast cancer knowledge, which may promote breast cancer screenings. It should be noted that culturally specific and language sensitive education may have the largest impact on behavior changes. Health care professionals, and nurses in particular, need to be educated on breast cancer, BSE, and other screening practice so they can assist women in mastering these health behaviors. Educational resources are available in many languages and should be used for programming.

Implications for Practice

Given the effectiveness of breast cancer educational workshops of this study, this workshop’s format may be applicable for promoting breast cancer awareness and early detection
screenings, such as BSE and mammogram. These workshops have been shown to be effective in many different cultural groups and should be encouraged in the community.

**Implication for Research**

Adequately powered well designed two groups (comparison and experimental group) with large participants are needed to further evaluate the relationship between the knowledge and the practice of BSE. Moreover, follow-up three months to a year later is needed to determine the practice of early detection screenings, such as BSE and mammogram and health promoting behaviors.

**Conclusion**

Presently, a 100% cure for breast cancer does not exist. The best a woman can do is to set up a good defense mechanism. Finding breast cancer during at its early stage is a key preventative measure. It is useful to educate the Korean-American women about breast cancer and the practice of early detection screenings as recommended by the American Cancer Society. They may become more confident and active in the prevention of breast cancer.
References


Appendix A

Incidence and Five-year Survival Rate According to the Stages of Breast Cancer
<table>
<thead>
<tr>
<th>Incidence Rate</th>
<th>US</th>
<th>KR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I (Localized)</td>
<td>60 %</td>
<td>37.9 %</td>
</tr>
<tr>
<td>Stage II (Regional)</td>
<td>33 %</td>
<td>35.7 %</td>
</tr>
<tr>
<td>Stage III and up (Distant)</td>
<td>5 %</td>
<td>14.4 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5 yr Survival Rate</th>
<th>US</th>
<th>KR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>98 %</td>
<td>99 %</td>
</tr>
<tr>
<td>Stage II</td>
<td>83.6 %</td>
<td>89 %</td>
</tr>
<tr>
<td>Stage III</td>
<td>23.4 %</td>
<td>59 %</td>
</tr>
<tr>
<td>Stage IV</td>
<td>28 %</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B

Informed Consent Form

English Version
Informed Consent Form

Title of Study: The Impact of Breast Cancer Educational Workshops on Knowledge and Breast Self-Examination Practice among Korean-American Women

Student Investigator: Corinne Lee, RN
               MSN Student, Eastern Michigan University
               Email: clee41@emich.edu

Faculty Advisors: Tsu-Yin Wu, PhD, RN
               Professor, Eastern Michigan University
               Email: tywu@emich.edu

               Michael Williams, MSN, RN
               Associate Professor, Eastern Michigan University
               Email: mwilliams@emich.edu

Purpose of Study:
Breast cancer has been in public awareness for a long time. Many studies and recommendations have been published regarding breast cancer and breast cancer screenings. One of the recommendations is education. The purpose of this study is to explore the impact of breast cancer educational workshops on breast cancer knowledge and breast self-examination practices among Korean-American women. The information gained from this study will provide knowledge on how to educate Korean-American women on breast cancer in the hope of increasing the breast self-examination practice rates and the early detection.

Procedure:
The investigator will be hosting the educational workshop on breast cancer. During the workshop, you will be given a PowerPoint lecture on breast cancer. If you agree to participate in the study, at the workshop, you will be asked to complete two questionnaires: one upon your arrival and the other before leaving the workshop. Both questionnaires will take approximately 10-20 minutes to complete. The questionnaires will be gathered anonymously, which means your name will not be on anywhere on the questionnaires. The questions will be about yourself (birthdate, education, length of stay in the US, previous diagnosis of breast cancer in you or your family), and your knowledge and feelings about breast cancer and breast cancer screenings.

Benefits:
The investigator anticipates that through the workshop you will increase your knowledge about breast cancer and breast cancer screenings to facilitate early detection. The information obtained from this study will facilitate and improve the education about breast cancer to Korean-American women in the future. The investigator anticipates completing this study by August 2011.

Risks:
There are no anticipated risks during and after this study. However, there may be a possibility of emotional distress if there is anyone who is close to you who has been diagnosed with
If you experience any distress during or after the workshop, you have the right to stop and seek assistance. You may contact the investigator or the advisors. A debriefing session will be provided at the end of the workshop for the participants if needed. Also you may contact the Eastern Michigan University Counseling Services (313 Snow Health Center, 734-487-1118) for additional support. However, please be advised that EMU is not responsible for any payment of the additional services.

If you have any questions, feel free to ask the investigator or the faculty advisors. At anytime, if you feel uncomfortable answering a particular question, you may leave it blank or simply withdraw from the study. There will be no consequences. If you wish, you may still be present in the workshop without actually being a participant in this study. To all the participants who complete the study will be given a $10.00 gift certificate as an incentive to thank you for your participation.

Confidentiality:

This study will be reviewed by the Human Subjects Review Committee (HSR) of Eastern Michigan University before being administered to participants. All the information provided by you will be kept in a secured place and will only be accessed by the investigator and the faculty advisors. Your identifying information will not be revealed during or after the study.

Since the study will be used for the Master's Thesis of the investigator, the information gathered will be published as a Master's Thesis. It will also be used in posters or presentations at professional conferences. All the public dissemination will be done maintaining the confidentiality of the participants with no identifying information.

This research protocol and informed consent document has been reviewed and approved by the Eastern Michigan University Human Subjects Review Committee for use from (Date to Date). If you have questions about the approval process, please contact Dr. Gretchen Dahl Reeves, PhD, Chair of CHHS-HSRC at 734-487-0077, 303 Marshall, greeves@emich.edu.
Appendix C

Informed Consent Form

Korean Version
연구 참여 동의서

연구 과제:
한국계 미국인에서 유방암 교육이 유방암에 대한 지식 정도와 유방암 자가진단 시행에 미치는 영향

책임 연구자:
Corinne Lee, RN
MSN Student, Eastern Michigan University
Email: clee41@emich.edu

지도 교수:
Tsu-Yin Wu, PhD, RN
Professor, Eastern Michigan University
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Michael Williams, MSN, RN
Associate Professor, Eastern Michigan University
Email: mwilliams@emich.edu

연구 목적:
유방암은 오랫동안 크게 주목을 받아 왔습니다. 그간 유방암과 유방암 조기 진단에 관련된 많은 연구 보고 및 제안들이 나왔습니다. 추천된 제안의 하나는 유방암에 대한 교육입니다. 본 연구의 목적은 한국계 미국인에서 유방암 교육이 유방암에 대한 지식 증진과 유방암의 자가검진 시행에 미치는 영향을 조사하려는 데 있습니다. 연구 결과는 앞으로 한국계 미국인에서 유방자가 검진률과 유방암 조기 진단률을 증진시키기 위하여 어떻게 교육을 시켜야 할 것인지 정보를 제공하게 될 것입니다.

연구 방법:
만일 귀하가 본 연구에 참여하기를 동의하시면 귀하는 연구자가 주관하는 유방암 교육에 참여하고 두 차례의 설문에 답변하시게 됩니다. 하나는 교육에 참여하기 위해 나오실 때 시작하기 전에 시행하고, 다른 하나는 교육이 끝나고 돌아가시기 전에 시행합니다. 각각의 설문 조사는 10-20분이 걸릴 것으로 예상합니다. 설문지는 귀하의 이름을 밝히지 않은 채 익명으로 답변하게 됩니다. 설문은 자신의 생년월일, 교육 정도, 미국 내 체류기간, 자신과 가족의 유방암
진단여부와 귀하의 유방암에 대한 지식과 유방암의 자가진단에 대한 느낌 등을 묻는 항목으로 되어 있습니다. 저는 이 연구를 2011년 8월까지 끝내고자 합니다.

혜택:
저는 본 교육을 통하여 귀하가 유방암을 예방하기 위해 유방암과 유방암의 자가진단에 대한 지식을 얻기를 기대합니다. 본 연구 결과는 앞으로 한국계 미국인에서 유방암 교육을 증진시키는 데 기여하게 될 것입니다.

위험:
본 연구를 진행하는 도중이나 끝난 뒤에 어떠한 위험도 없을 것입니다. 혹시라도 귀하의 신분이 외부에 노출되지 않을 것입니다.

비밀 보장:
본 연구는 시작하기 전에 이스턴 미시간 대학교의 연구위원회가 적합성 여부를 심의하였습니다. 귀하가 제공하는 모든 정보는 안전한 곳에 보관하며, 연구자와 지도교수만 볼 수 있습니다. 귀하의 신분은 연구 중이나 연구가 끝난 뒤에 결코 외부에 노출되지 않을 것입니다.

본 연구의 계획 안과 참여 동의서는 (날짜부터 날짜까지) 쓸 수 있도록 이스턴 미시간 대학교의 연구위원회에서 심사하고 승인하였습니다. 심사 과정에 문의 사항이 있으시면 Dr. Gretchen Dahl Reeves, PhD, Chair of CHHS-HSRC at 734-487-0077, 303 Marshall, greeves@emich.edu 으로 연락하여 주십시오.
Appendix D

Outline of PowerPoint Lecture in the Workshops
Asian Americans and Breast Cancer

- Breast Cancer Issues of Asian Women in the United States
- What is Breast Cancer?
- The importance about breast cancer
- US cancer cases and cancer death rate
- Breast cancer stages and five-year survival rate
- Breast cancer stage diagnosis: Comparison between Korea & US
- Breast cancer Trends
- Risk factors: Changeable and Unchangeable
- What to do: Early detection
- Things to look for
Appendix E

Description and Measurement of the Items of the Questionnaire
<table>
<thead>
<tr>
<th>Factors</th>
<th>No. items</th>
<th>Adapted from</th>
<th>Items description</th>
<th>Items Response</th>
<th>Total score range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td>8</td>
<td>Wu &amp; Yu, 2003</td>
<td>Age, years of residence in the US, education level, occupation, health insurance, diagnosis of breast cancer in self and family</td>
<td>Open-ended</td>
<td>N/A</td>
</tr>
<tr>
<td>Knowledge of breast cancer screening</td>
<td>5</td>
<td>Wu &amp; Ronis, 2009</td>
<td>Questions related to the breast cancer screening recommendation by the American Cancer Society for BSE and mammography</td>
<td>Close-ended of yes or no (heard of mammogram and BSE), open-ended of when should mammogram start and frequency of BSE. 1=correct, 0=wrong</td>
<td>0-4</td>
</tr>
<tr>
<td>BSE behavior</td>
<td>1</td>
<td>Wu &amp; Ronis, 2009</td>
<td>Participant's BSE practice frequency</td>
<td>Close-ended of never, 2-6 times a year, 7-11 times a year, once a month, once a week, other. 1=correct, 0=wrong</td>
<td>0-1</td>
</tr>
<tr>
<td>Knowledge of breast cancer risk</td>
<td>8</td>
<td>Wu &amp; Ronis, 2009</td>
<td>Questions regarding the knowledge of the following conditions in increasing the risk of one's breast cancer incidence: 1) hitting/bumping/fondling the breast, 2) morally bad action, 3) immigration to the US, 4) overweight, 5) pollution, 6) large breast, 7) ovarian cancer</td>
<td>Close-ended of yes, no, or don't know. 1=correct, 0=wrong or don’t know Scoring: summing all the items with correct answers</td>
<td>0-8</td>
</tr>
<tr>
<td>Knowledge of recommendations for frequency of mammography and BSE</td>
<td>10</td>
<td>Wu &amp; Ronis, 2009</td>
<td>Questions regarding the knowledge of frequency of mammography and BSE with 1) no family history of breast cancer, 2) no breast symptoms, 3) feel healthy, 4) history of breastfeeding, 5) older age, 6) healthy diet and exercise</td>
<td>For mammogram: every year, every 2 years, every 3-5 years, never, other; for BSE: every year, every 6 months, every month, never, other. 1=correct, 0=wrong Scoring: summing all the items with correct answers</td>
<td>0-10</td>
</tr>
<tr>
<td>Perceived benefits</td>
<td>6</td>
<td>Champion, 1993</td>
<td>Positive aspects of BSE</td>
<td>1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree</td>
<td>Scoring: summing all the items</td>
</tr>
<tr>
<td>-------------------</td>
<td>---</td>
<td>---------------</td>
<td>-------------------------</td>
<td>-------------------------------------------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Perceived barriers</td>
<td>6</td>
<td>Champion, 1993</td>
<td>Negative aspects of BSE</td>
<td>1=strongly agree, 2=agree, 3=neutral, 4=disagree, 5=strongly disagree</td>
<td>Scoring: summing all the items</td>
</tr>
<tr>
<td>Perceived self-efficacy</td>
<td>7</td>
<td>Champion, 1993</td>
<td>One's confidence in performing BSE</td>
<td>1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree</td>
<td>Scoring: summing all the items</td>
</tr>
</tbody>
</table>
Appendix F

Questionnaire to be used for the Study

English Version
Breast Cancer Screening Questionnaire

I. Demographics

First, we would like to ask some questions about you and your family.

1. What is your birthdate? _____ month/ _____ day/ _____ year

2. If you were born outside the U.S., how many years have you lived in the U.S.? ______

3. What is your highest education degree that you’ve got? ___________ ___________ ___________

4. What is your occupation? ____________________

5. Do you currently have health insurance? Yes ( ) No ( )

Now, we would like to know about your and your family’s breast cancer history.

6. Have you ever been diagnosed with breast cancer?
   Yes ( ) how long ago were you diagnosed with breast cancer? _____ years
   No ( )

7. Do you have a family member who has been diagnosed with breast cancer?
   Yes ( ) Your relationship with this/these person(s) ___________
   No ( )

8. Do you have a close friend who has been diagnosed with breast cancer? Yes ( ) No ( )

II. Breast Cancer Screening

Now we would like to ask some questions about your experiences and feelings about breast cancer screening. Please put an "X" in the appropriate spaces for each of the following questions.

1. A mammogram is a breast x-ray in which each breast is pressed by a special machine before being x-rayed. It is used to find breast cancer. Have you heard of mammogram or breast x-ray?
   Yes _____
   No _____

2. At what age should a woman start having a mammogram every year?
   ______ years of age        Don’t Know ___________________

3. How long ago did you have your last mammogram (pick one answer which best describe you)
   I haven’t had a mammogram in the past ________
   Less than 13 months ago ________ Between 13 months and 2 years ago ________
   More than 2 years ago ________ Don’t remember ________

4. A breast self-examination is when a woman checks her own breasts for lumps and other changes. Have you ever heard of the term, breast self-exam?
   Yes _____          No _____

5. How often do you think a woman should practice breast self-examination? ____________

6. How often do you practice breast self-examination? (Pick one answer)
   Never ______ 2-6 times a year ______
III. Cancer Risk, Knowledge, and Facilitators for Screening

Please check an appropriate answer for each of the following statements.

1.1. Do you think that hitting, bumping or fondling the breasts would increase a woman’s chances of getting breast cancer?  Yes _____  No____   Don’t Know____

1.2. Do you think a woman who did something morally bad has a higher chance of getting breast cancer?  Yes _____  No____   Don’t Know____

1.3. Do you think a woman who immigrated to the U.S. has a greater chance of getting breast cancer?  Yes _____  No____   Don’t Know____

1.4. Do you think a woman who is 20 pounds overweight has a higher chance of getting breast cancer?  Yes _____  No____   Don’t Know____

1.5. Do you think that air pollution increases a woman’s chance of getting breast cancer?  Yes _____  No____   Don’t Know____

1.6. Do you think a woman who has large breasts has a higher chance of getting breast cancer than women with smaller breasts?  Yes _____  No____   Don’t Know____

1.7. Do you think a woman who has had ovarian cancer is more likely to get breast cancer?  Yes _____  No____   Don’t Know____

1.8. Do you think a mammogram helps doctors or nurses find breast cancer before it can be felt?  Yes _____  No____   Don’t Know____

2.1. If a woman your age does not have any family history of breast cancer or other types of cancers, how often do you think she should get breast cancer screenings?
Mammogram: Every year___ Every 2 years___ Every 3-5 years___ Never ___ Other (explain)____
Breast self-exam: Every year___ Every 6 months___ Every month___ Never ___ Other (explain)____

2.2. If a woman your age does not have any breast symptoms and feels healthy, how often do you think she should get breast cancer screenings?
Mammogram: Every year___ Every 2 years___ Every 3-5 years___ Never ___ Other (explain)____
Breast self-exam: Every year___ Every 6 months___ Every month___ Never ___ Other (explain)____

2.3. If a woman your age had previously breast-fed a child, how often do you think she should get breast cancer screenings?
Mammogram: Every year___ Every 2 years___ Every 3-5 years___ Never ___ Other (explain)____
Breast self-exam: Every year___ Every 6 months___ Every month___ Never ___ Other (explain)____
2.4. When a woman gets older (reaching her 60's), how often do you think she should get breast cancer screenings?

Mammogram: Every year___ Every 2 years___ Every 3-5 years___ Never ___ Other (explain)____
Breast self-exam: Every year___ Every 6 months___ Every month___ Never ___ Other (explain)____

2.5. When a woman your age eats a healthy diet and exercises regularly, how often do you think she should get breast cancer screenings?

Mammogram: Every year___ Every 2 years___ Every 3-5 years___ Never ___ Other (explain)____
Breast self-exam: Every year___ Every 6 months___ Every month___ Never ___ Other (explain)____

Please circle the answer that is closest to your feelings.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When I do breast self-exam I feel good about myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. When I complete monthly breast self-exam I don't worry as much about breast cancer.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Completing breast self-exam each month will allow me to find lumps early.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. If I complete breast self-exam monthly during the next year I will decrease my chance of dying from breast cancer.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. If I complete breast self-exam monthly I will decrease my chances of requiring radical or disfiguring surgery if breast cancer occurs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. If I complete monthly breast self-exam it will help me to find a lump which might be cancer before it is detected by a doctor or nurse.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I feel funny doing breast self-exam.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8. Doing breast self-exam during the next year will make me worry about breast cancer.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9. Breast self-exams will be embarrassing</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>10. Doing breast self-exams will take too much time.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11. Doing breast self-exams will be unpleasant.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>12. I don't have enough privacy to do breast self-exam.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>13. I know how to perform breast self-exam.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. I am confident I can perform breast self-exam correctly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. If I were to develop breast cancer I would be able to find a lump by performing breast self-exam.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. I am sure of the steps to follow for doing breast self-exam.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. I am able to identify normal and abnormal breast tissue when I do breast self-exam.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. When looking in the mirror, I can recognize abnormal changes in my breast.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. I can use the correct part of my fingers when I examine my breast.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix G

Questionnaire to be used for the Study

Korean Version
유방암 조기 검진 설문 조사

I. 인구 조사

본인과 본인의 가족에 대해 묻습니다.

1. 생년월일 ____ 년 ____ 월 ____ 일
2. 미국 외에서 태어났다면, 미국에 오신지 얼마나 되셨습니까? ______
3. 최종 학력 ________________
4. 직업 ____________________
5. 미국 건강 보험이 있습니까? 예 ( ) 아니요 ( )

본인과 본인의 가족의 유방암 내력에 대해 묻습니다.

6. 본인이 유방암 진단을 받은 적이 있습니까?
   예 ( ) 얼마나 전에 받으셨나요? ____ 년  아니요 ( )
7. 가족 중 유방암 진단을 받은 분이 계십니까?
   예 ( ) 그 분과 관계가 어떻게 되십니까? __________
   아니요 ( )
8. 가까운 친구 분께서 유방암 진단을 받은 분이 계십니까? 예 ( ) 아니요 ( )

II. 유방암 조기 검진

다음 질문들은 유방암 조기 검진에 대한 본인의 경험과 느낌에 대해 묻습니다.

1. 유방 촬영술은 유방암을 찾기 위해 특별한 기구를 사용하여 유방을 놀러서 사진을 찍습니다.
   유방촬영술에 대해 들어보신 적이 있으십니까?
   예 ____  아니요 ____
2. 본인 생각에 여성이 몇 세가 되면 유방촬영을 해마다 실시해야한다고 생각하십니까?
   ____ 세 잘 모르겠다 __________
3. 가장 마지막으로 유방촬영을 한 날이 언제입니까?
   가운데 유방촬영을 한 적이 없다 ______
   13개월 전 ______ 13개월과 24개월 사이 ______
   2년 이상 됐다 ______ 기역나지 않는다 ______
4. 유방 자가 검진은 본인이 자신의 유방에 명불허가 변화가 있는지를 검사하는 것입니다. 유방 자가 검진에 대해 들어보셨습니까?
   예 ____ 아니요 ____
5. 유방 자가 검진은 얼마나 자주 해야 한다고 생각하십니까? __________________
6. 얼마나 자주 유방자가 검진을 실행하십니까?
전혀 한 적이 없다 ____ 일년에 2-6 번 ____ 일년에 7-11 번 ____
매달 ____ 매주 ____ 다른 답 (자세히)

III. 유방암 확률, 지식 및 조기 검진 촉진자
다음 질문 사항들에 대해 알맞은 곳에 표시해 주십시오.

1.1. 유방을 치거나 부딪히거나 만지면 유방암에 걸릴 확률이 높아진다고 생각하십니까?
예 _____ 아니요 ___ 잘 모르겠다 ___

1.2. 여성이 도덕적으로 잘못하면 유방암에 걸릴 확률이 높아진다고 생각하십니까?
예 _____ 아니요 ___ 잘 모르겠다 ___

1.3. 미국으로 이민 오면 유방암에 걸릴 확률이 높아진다고 생각하십니까?
예 _____ 아니요 ___ 잘 모르겠다 ___

1.4. 10 키로 과체중일 때 유방암에 걸릴 확률이 높아진다고 생각하십니까?
예 _____ 아니요 ___ 잘 모르겠다 ___

1.5. 공기오염 때문에 유방암에 걸릴 확률이 높아진다고 생각하십니까?
예 _____ 아니요 ___ 잘 모르겠다 ___

1.6. 유방의 크기나 크면 유방암에 걸릴 확률이 높아진다고 생각하십니까?
예 _____ 아니요 ___ 잘 모르겠다 ___

1.7. 난소암을 앓은 여성에서 유방암에 걸릴 확률이 높아진다고 생각하십니까?
예 _____ 아니요 ___ 잘 모르겠다 ___

1.8. 유방촬영술이 멍울이 느껴지는 것보다 더 빨리 암을 발견할 수 있다고 생각하십니까?
예 _____ 아니요 ___ 잘 모르겠다 ___

2.1. 본인의 나이 여성에게 유방암이나 다른 암 가족력이 없다면 유방 조기 검진을 얼마나 자주 해야 한다고 생각하십니까?
유방촬영술: 매해 ____ 2 년에 한번 ____ 3-5 년에 한번 ___ 할 필요없다 ___ 다른 답 (자세히) ___
유방 자가 검진: 매해 ____ 6 개월에 한번 ___ 매달 ___ 할 필요없다 ___ 다른 답 (자세히) ___

2.2. 본인의 나이 여성에게 아무런 유방 증상이 없고 건강하게 느껴진다면 유방 조기 검진을 얼마나 자주 해야 한다고 생각하십니까?
유방촬영술: 매해 ____ 2 년에 한번 ____ 3-5 년에 한번 ___ 할 필요없다 ___ 다른 답 (자세히) ___
유방 자가 검진: 매해 ____ 6 개월에 한번 ___ 매달 ___ 할 필요없다 ___ 다른 답 (자세히) ___

2.3. 본인의 나이 여성에서 모유 수유한 적이 있다면 유방 조기 검진을 얼마나 자주 해야 한다고 생각하십니까?
유방촬영술: 매해___ 2년에 한번___ 3-5년에 한번___ 할 필요없다___ 다른 답(자세히)___
유방자가 검진: 매해___ 6개월에 한번___ 매달___ 할 필요없다___ 다른 답(자세히)___

2.4. 여성이 60세 이상이 되면 유방 조기 검진을 얼마나 자주 해야한다고 생각합니까?
유방촬영술: 매해___ 2년에 한번___ 3-5년에 한번___ 할 필요없다___ 다른 답(자세히)___
유방자가 검진: 매해___ 6개월에 한번___ 매달___ 할 필요없다___ 다른 답(자세히)___

2.5. 본인의 나이 여성이 건강식을 하고 정기적으로 운동한다면 유방 조기 검진을 얼마나 자주 해야한다고 생각합니까?
유방촬영술: 매해___ 2년에 한번___ 3-5년에 한번___ 할 필요없다___ 다른 답(자세히)___
유방자가 검진: 매해___ 6개월에 한번___ 매달___ 할 필요없다___ 다른 답(자세히)___

다음 질문들에 대한 본인의 느낌은 어느 정도입니까?

<table>
<thead>
<tr>
<th></th>
<th>전혀 그렇지 않다</th>
<th>그렇지 않다</th>
<th>중간</th>
<th>그렇다</th>
<th>매우 그렇다</th>
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</thead>
<tbody>
<tr>
<td>1. 유방자가 검진을 하면 스스로 기분이 좋다.</td>
<td>1</td>
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<tr>
<td>2. 매달 유방자가 검진을 하면 유방암에 대한 두려움을 줄일 수 있다.</td>
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<td>3. 유방자가 검진은 유방에서 멍우리를 찾는 데 도움이 된다.</td>
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<td>4. 다음 한 해 동안 매달 유방자가 검진을 하면 유방암으로 죽을 확률을 줄일 수 있다.</td>
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<tr>
<td>5. 매달 유방자가 검진을 하면 유방암을 발견하더라도 광범위하고 험한 자극을 남길 수 술을 할 필요를 줄일 수 있다.</td>
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<tr>
<td>6. 매달 유방자가 검진을 하면 의료진이 정기 건강검진에서 발견하기 전에 멍우리를 발견할 수 있다.</td>
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<tr>
<td>7. 유방자가 검진을 하는 것은 곤혹스러운 일이다.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
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<tr>
<td>8. 다음 한 해 동안 유방자가 검진을 하는</td>
<td>5</td>
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<td>것은 내가 유방암에 대해 두려워하게 할 것이다.</td>
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<td>4</td>
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</tr>
<tr>
<td>9. 유방 자가 검진을 하는 것은 스스로 창피하다.</td>
<td>5</td>
<td>4</td>
<td>3</td>
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<tr>
<td>10. 유방 자가 검진을 할 때 시간이 많이 든다.</td>
<td>5</td>
<td>4</td>
<td>3</td>
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</tr>
<tr>
<td>11. 유방 자가 검진은 불쾌감을 준다.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>12. 유방 자가 검진을 할 만한 은밀한 장소가 없다.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
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<td>13. 유방 자가 검진의 방법을 알고 있다.</td>
<td>1</td>
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<td>14. 유방 자가 검진을 올바르게 할 자신이 있다.</td>
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<td>15. 나에게 유방암이 발생한다면 유방 자가 검진을 통해 명우리를 찾을 수 있을 것이다.</td>
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<tr>
<td>16. 유방 자가 검진의 정확한 방법을 알고 있다고 자신한다.</td>
<td>1</td>
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</tr>
<tr>
<td>17. 유방 자가 검진을 통해 정상과 이상의 유방 조직을 분별할 수 있다.</td>
<td>1</td>
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<td>5</td>
</tr>
<tr>
<td>18. 거울을 통해 볼 때 유방의 이상 변화를 분별할 수 있다.</td>
<td>1</td>
<td>2</td>
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<td>5</td>
</tr>
<tr>
<td>19. 유방 자가 검진을 할 때 정확하게 손가락의 어느 부분을 사용해야 하는지 알고 있다.</td>
<td>1</td>
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</tr>
</tbody>
</table>
Appendix H

Permission Letters from the Original Authors to use the Instruments
February 28, 2011

Ms. Corinne Lee
403 Village Green Blvd. Apt # 206
Ann Arbor, MI 48105

Dear Ms. Lee,

Thank you for your interest in my work. Enclosed please find a copy of the breast self-examination instrument you requested. You have permission to revise the tool for your use as long as you cite my work and send me an abstract of your completed project.

Sincerely,

[Signature]

Victoria Champion, PhD, RN, FAAN
Mary Margaret Walther Distinguished Professor
Edward W. and Sara Stam Cullipher Endowed Chair
Executive Associate Dean for Research Affairs

VC:dc

Enclosure
April 1, 2011

Corinne Lee  
403 Village Green Blvd. Apt #206  
Ann Arbor, MI 48105

Dear Ms. Lee,

Thank you for your interest in my work, *Asian-American Women Mammogram Screening Beliefs Questionnaire*. You have permission to revise the questionnaire for your use as long as you cite my work.

Sincerely,

Tsu-Yin Wu, PhD, RN  
Professor  
School of Nursing  
Eastern Michigan University
Appendix I

Approval from the Human Subjects Review Committee at the Eastern Michigan University
MS #1017 - College of Health and Human Services Human Subjects

From: Gretchen Dahl Reeves <editor-chhs_hs-1017-1359477@commons.emich.edu>
Subject: MS #1017 - College of Health and Human Services Human Subjects
To: Corinne Lee <cleel41@emich.edu>
Cc: The Authors <authors-chhs_hs-1017@commons.emich.edu>, The Administrators <editors-chhs_hs-1017@commons.emich.edu>

Fri, Apr 29, 2011 04:20 PM

Dear Corinne,

Congratulations! After careful review of your proposal and its recommended revisions the CHHS Human Subjects Review Committee approves your proposal,"The Impact of Breast Cancer Educational Workshops on Knowledge and Breast Self-Examination Practice among Korean-American Women".

The current version of your paper is available here:
http://commons.emich.edu/cgi/preview.cgi?article=1017&context=chhs_hs

We wish you the best in your research endeavors.
Sincerely,

Gretchen Dahl Reeves, PhD.
Chair, CHHS-HSRC.

https://mail.emich.edu/zimbra/h/printmessage?id=32462