SELF-EXAMINATION OF THE BREAST

by

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STATEMENT BY AUTHOR

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ABSTRACT

This study focused on the relationship between knowledge and performance of self-examination of the breast. Three questionnaires were used to test knowledge, performance, and attitudes.

Twenty-three women of the University Dames Club at The University of Arizona participated in the study. They were given a questionnaire to complete just before seeing a Cancer Society film on self-examination of the breast in order to determine baseline knowledge, attitudes and performance. The second questionnaire was given immediately after the Cancer Society program to test immediate recall. The third questionnaire was mailed to the participants three months after the program to test increase in knowledge and any change in attitudes and performance.

The findings indicated a statistically significant increase in knowledge after the program which was still retained three months later. There was also a significant change in the number of women practicing monthly self-breast examination three months after the program. A significant relationship between knowledge and performance of self-examination of the breast was found.

A major change in attitude was demonstrated when the women indicated that they were able to examine their breasts with confidence in their ability to discover an abnormality.
CHAPTER 1

INTRODUCTION

Self-examination of the breast is important because cancer of the breast is the most common malignancy found in women. According to Botsford (1968), editor of a cancer manual, one out of six women has a breast biopsy at some time in her life and one out of every 19 has breast carcinoma with 67,000 new cases diagnosed each year. In 80 percent of the cases, a lump is the first symptom and 90-95 percent of these are found by the patient herself. When cancer is confined to the breast, the likelihood of cure is 75-85 percent (Ross 1969). Women who practice monthly self-examination of the breast can find lumps as small as one-half inch in diameter (American Cancer Society 1963). Judge and Zuidema (1963) believe that there is a reasonable chance of cure if breast cancer is found early and that early detection is the key to successful treatment.

Self-examination of the breast is an important screening procedure for women who are considered to be at high risk of developing breast cancer. Breast cancer is most common in women between ages 40 and 60 (Botsford 1968). According to the American Cancer Society, it is most frequent in women who are unmarried, who have never given birth, who have not breast-fed their babies and who have gone through menopause. It is also most common in women in higher socioeconomic levels, in those
who have a history of breast cancer among blood relations and in those who have had complications of lactation (American Cancer Society 1963).

The surgical removal of the ovaries seems to be a relevant factor. Women who have had an artificial menopause have only one-half the risk of breast cancer as those who have not (Clark 1967).

Clark (1967) agrees that factors that reduce cyclic ovarian activity--pregnancy, lactation, malnutrition, and ovariectomy--reduce breast cancer risk. This is not firmly enough documented to form a basis for any preventive measures. In view of this, studies have been done to determine if oral contraceptives increase the risk of breast cancer. Arthes, Sartwell and Lewison (1971) reported that studies including 283 cases of breast cancer and 585 controls provide no evidence that the administration of female hormones increases the risk of breast cancer. Another study reported by Vessey, Doll and Sutton (1971) was done in five London hospitals which included 220 women aged 16-39 with lumps in the breast (54 malignant and 166 benign) and 216 matched controls. There was no evidence that oral contraceptives were associated with increased risk of breast cancer. Preliminary data suggested that oral contraceptives protect against benign lesions.

The geographic distribution of breast cancer reveals steady reduction in incidence from west to east--from Canada and the United States across the Atlantic to Europe and finally to Central Asia. Low rates are found in Taiwan, Uganda and Mozambique but even these rates are not very low. Cancer of the breast tends to run in families within countries but genetic factors cannot account for the geographic differences.
Non-whites have the same rate as whites in the United States but the disease is rare among Africans in Africa. The Japanese in Hawaii have a higher rate than the Japanese in Japan. Fertility and prolonged lactation may be a factor in the countries with lower rates (Doll 1967).

In summary, cancer of the breast is the most common cancer in women. It is most common in unmarried women between ages 40 and 60. Factors that reduce cyclic ovarian function—pregnancy, lactation, malnutrition and ovariectomy—reduce the risk of breast cancer. The geographic distribution of breast cancer shows a steady reduction in incidence from west to east. Cancer of the breast tends to run in families.

In 80 percent of the cases, a lump is the first symptom and 90-95 percent of all lumps are first found by the patient herself. Self-examination of the breast is important because there is a reasonable chance for cure if breast cancer is found early.

**Statement of the Problem**

Is there an increase in the performance of monthly self-examination of the breast as the result of knowledge and attitude change as measured by a test before and three months after an educational experience?

**Significance of the Study**

The value of education in cancer control has been one of the endeavors of the American Cancer Society. Since its inception, volumes of literature have been developed, many films have been produced, and research has been documented to change the behavior of individuals.
Emphasis is directed to provide knowledge and change of attitudes to secure medical diagnosis and treatment in early stages of cancer development. Although huge sums of money have been allocated for educational purposes, there have been no studies documenting the effectiveness of these programs. No articles were found illustrating the relationship between knowledge, attitude change, and performance of self-examination of the breast. This study will measure the effectiveness of one educational program related to self-examination of the breast.

**Hypothesis**

There is an increase in the performance of monthly self-examination of the breast following an educational program as measured by change in knowledge and attitude.

**Limitations**

The following limitations of the study are recognized:

1. This group is not typical of the general population because the sample was composed of members of the University Dames Club.
2. The validity of the conclusions is dependent on the honesty of the responses given by the women.
3. The duration of the study was too short to determine long-range results.

**Conceptual Framework**

The conceptual framework for this study was based on health behavior. Health behaviors are behaviors that are directed toward the
maintenance and promotion of wellness, including actions taken to detect disease early. Self-examination of the breast is an important action in the early detection of breast cancer.

A person will decide to adopt a health behavior when he believes it is important to his well-being, when he feels susceptible to the condition he is expected to take precautions against and when he perceives dire consequences for himself if he fails to follow the recommended action. Convenience, comfort and the effort required to perform the behavior will determine whether the recommendation will be followed (Wu 1973). Health behaviors for preventing disease are accepted to the degree that the person thinks he can contract the disease, that he thinks the disease is serious and that he thinks the disease can be cured (Douglass 1971). These factors would be expected to influence the performance of self-examination of the breast by women who are motivated enough to attend a meeting to obtain information and methods of helping them help themselves.

The most important factor in cancer education is changing the way people feel about the disease. For those forms of cancer that offer a reasonable chance of cure with early detection, the patient is the major hinderance. Just knowing that a symptom can mean cancer can cause the person to delay diagnosis and treatment. "The prevailing attitude puts cancer in a place by itself as the ultimate in dreadfulness" (Davison 1973). Person-to-person communication, where opportunity is allowed for questions and free discussion, is most effective in changing attitudes (Davison 1973).
Denial, a normal defense mechanism, accounts for resistance when fear is aroused. The typical response is to deny the seriousness of the threat (Wu 1973). However, fear need not be a block but can be a motivating factor if adequate support and information is available to the person.

This conceptual framework was implemented in this study through use of a film and discussion immediately following to decrease fear. The researcher provided information about breast cancer, the importance of early detection and a demonstration of the performance of self-examination of the breast. The motivation of the women to attend the Cancer Society program was recognized as a positive influence.

**Definition of Terms**

2. Performance of self-examination of the breast—observation and palpation of the breast at monthly intervals.
3. Attitude—a manner of feeling that determines one's behavior.
4. Support—to help, comfort and strengthen.
CHAPTER 2

REVIEW OF LITERATURE

Review of the literature revealed many articles related to the incidence and diagnosis of cancer of the breast, as well as volumes of information available for the lay public and for professional use. Only four articles dealt specifically with self-examination of the breast. Other studies described survival rates, cost effectiveness and educational influences.

There are many articles dealing with the incidence and epidemiology of breast cancer. These were discussed in Chapter 1.

Studies of Survival Rates

According to Gershon-Cohen, Hermel and Murdock (1970), the survival statistics in breast cancer continue to be stalemated while other cancer sites show improvement. The medical profession is not doing its utmost to improve matters. They urge women to examine their own breasts and to report anything unusual. This makes the woman responsible for discovering her own cancer which she does in 95 percent of the cases. Too often a panic-filled delay precedes the visit to a physician. As a result, cancers are found late and large. They average 3.5 cm in diameter and in about 65 percent of the cases have metastasized by the time surgery is done. The five-year survival rate in these cases is...
45 to 50 percent. When a physician takes the responsibility by physical examinations or aided by mammography, thermography, xerography and mammometry, lesions average 1.0 cm in diameter and there is metastasis in only 30 percent of cases. The five-year survival rate in this case is 80 percent. The author recommended a breast examination by a physician every six months and annual mammography for those over 35 years of age.

Egan (1971) agreed that women are discovering 95 percent of their own breast cancers and delaying seeking care because of fear and lack of physician rapport. He further stated that physicians are missing 25 percent of advanced cancers on the initial examination.

According to Egan (1971), mammography eliminates the hesitancy of women to present themselves for diagnosis resulting in earlier detection. Also breast cancer can be detected two years prior to clinical recognition.

Shapiro, Strax and Venet (1971) also reported a preliminary study on breast cancer mortality rates. He stated that the study will take more time for conclusive evidence but it appeared that self-examination of the breast does not reduce mortality rates.

Venet, Strax, Venet and Shapiro (1971) reported an investigation including 31,000 women aged 40 to 64 in the study group and a similar population in the control group. Only the study group reported for screening examinations. The conclusion of the study was that mammography and clinical examination do not result in a substantial reduction in mortality. This study had been carried out for three and one-half years and a ten-year followup was planned.
Donaldson (1970a, p. 197) stated in a letter to the editor of *Lancet* that it is erroneous to say "that early diagnosis of cancer of the breast is of no value, since many patients who are treated when the tumor is still small die within the year." The chief factor in the prognosis is the type of tumor (fast or slow growing). This argument was once used against early diagnosis of cancer of the cervix. He felt that self-examination of the breast is the only way to get early detection of breast cancer.

The University of Minnesota Cancer Detection Center conducted studies for 20 years. Survival rates have been remarkably good for patients participating in a program of annual physical examinations and supplemented self-examinations. The study group included 8,345 women, 45 years old and older, who indicated freedom from symptoms of cancer and other serious diseases at the onset of the study. The detection rate at the Center was 1.32 per thousand annual examinations and .93 per thousand patient-years experience at intervals between annual examinations. The survival rate of those detected at the intervals between examinations was not as good as for those detected at the Center (Gilbertsen and Kjelsberg 1971).

**Studies of Cost Effectiveness**

Cost is always an important consideration when screening procedures are done. Because of this, cost analysis studies were done.

A cost analysis was done on 44,663 multiphasic examinations performed between September 1, 1967, and August 31, 1968. The patients were members of the Kaiser Foundation Health Plan in the San Francisco bay
area. The tests included were mammography, electrocardiograms, tonometry, chest X-ray, blood pressure, respirometry, visual acuity and audiometry. Mammography was found to be the most expensive test. The cost per positive test found was $408.00. Since only one out of five of those with positive tests actually had cancer, the true cost was $2,000 per breast cancer detected (Collen et al. 1970).

Another study indicated, however, that mammography may be of value in spite of cost. A screening program for breast cancer in women 40 years old and older extended over a three-year period. Dowdy et al. (1971) found a similar cost for mammography--$2,223 per breast cancer detected. He felt that if early screening were feasible 19,825 patients with breast cancer could be saved. This would result in $858,762,155 in earnings and late treatment expenses being saved.

Strax (1971) felt that the cost could be reduced by the use of paramedical screeners in a project developed by the Health Insurance Plan of Greater New York under contract with the National Institutes of Health. Since mammography and thermography detect different facets of breast cancer both were used in this project. Screening was carried out at a central location and at neighborhood clinics using a portable mammography device and data collection by paramedical screeners. A substantial reduction of mortality was achieved in a study group of 31,000 women compared with a control group of similar size.

The American Cancer Society bears the cost of its educational programs relating to self-examination of the breast. This cost is
mainly the cost of the literature and films. The professional speakers donate their time. Participation in Cancer Society programs involves no cost of the public.

Studies of Educational Influences

According to a recent Gallup Poll, only 34 percent of an undefined number of women questioned had been taught self-examination of the breast by a physician. Ninety-five percent of all breast lumps were discovered by the patient herself and would be discovered sooner if she practiced monthly self-examination of the breast (American Cancer Society 1973).

A study done at the Breast Disease Clinic at the Preventive Medicine Institute-Strang Clinic in New York was reported by Thiessen (1971). Of the 150 women studied, 56 women (37.7 percent) claimed regular self-examination practices. Fourteen of these described the frequency of their examinations as daily, weekly, rarely or occasionally. The effectiveness of these examinations was doubtful because of the way that the examinations were done. Forty-two women reported monthly or bi-monthly examination. In this study only 22.3 percent of the breast lumps were discovered by the patient herself. Thiessen (1971) recommended self-examination of the breast for women over 45 years of age.

There were two letters to the editor of the British Medical Journal regarding the procedure for self-examination of the breast. Patey (1970) proposed that women be taught to examine their breasts while bathing the breasts with soaped hands. He felt this method would be free from psychological overtones. Donaldson (1970b) responded to
this letter by questioning whether looking for a mass while bathing would really be a conscious search. He did agree that more examinations would be done if this method were used.

The goals of the American Cancer Society are to educate the public to the dangers of cancer of the breast and to the possibility of cure with early detection. In a publication directed to the contribution of nurses, the American Cancer Society recommends that nurses encourage women to examine their breasts at regular monthly intervals, tell women's organizations about the film relating to self-examination of the breast, arrange for local showings, take part in the discussion of the film, help create healthy psychological attitudes and know the resources within the community (American Cancer Society 1969).

Since the practice of health behaviors by individuals is the goal of the educational activities of nurses and other health professionals, securing consumer participation receives a great deal of attention. One must know something about a person's point of view in order to help him adopt a new health behavior, such as self-examination of the breast (Apple 1960). Even when people are exposed to information, they may not listen to what is said until it is integrated into their way of thinking (Knutson 1965).

The image of cancer as a single fatal disease, instead of several diseases with different cure rates, persists in the mind of people. This belief hinders the adoption of health behaviors directed toward early detection. Nurses are no different than the rest of the public in this regard. Personal experience with the disease probably has more effect
than knowledge. If the mortality rate from cancer of the breast were greatly reduced by early detection, this would do much to break down the public image (Wakefield 1970).

Summary

Self-examination of the breast is the most readily accessible method of early detection of breast cancer. Early detection is important if the mortality rate from breast cancer is to be reduced. The American Cancer Society stresses educational approaches to bring about attitude change and an increase in knowledge about breast cancer and its curability. The object is to increase the number of women practicing monthly self-examination of the breast.
CHAPTER 3

DESIGN OF THE STUDY

This study was designed to answer the question: "Is there an increase in the performance of monthly self-examination of the breast as the result of knowledge and attitude change as measured by a test before and three months after an educational experience?"

The participants were women, members of the University Dames Club, who attended a Cancer Society program on self-examination of the breast. Questions to assess knowledge and attitude about breast cancer before and after program content was developed. Three months following the educational program, the same questions were assessed. The element of performance of self-examination of the breast was assessed before the program and three months later.

Permission to conduct this study was sought and obtained from the president of the University Dames Club. Written permission was obtained from each of the 23 women. A simple explanation of the study was presented to the group before the film was shown. The researcher identified herself as a graduate student at The University of Arizona who was doing a study to test the effectiveness of education relating to breast cancer. It was explained that participation in the study was not a requirement for viewing the film. Consent was obtained from all present, however (see Appendix A).
The women completed the first questionnaire immediately before the film showing to determine a baseline of knowledge of the participants. The same questionnaire was repeated immediately after the program to measure immediate learning. The questionnaire was repeated three months later to include a measure of retention and any change in performance. Because there was limited time for the study to be completed, three months was chosen as a minimum time in which a change in performance could be measured. Since most forgetting takes place in the first 24 hours (Deese 1958), retention could be measured anytime after that.

The Cancer Society program included a film, "Breast Self-Examination," that provided information to the participants with rationale and procedure to examine their breasts monthly after each menstrual period. The menstrual period serves as a reminder to inspect for breast cancer. Since there are changes in breast consistency during the menstrual period, it is recommended that the examination not be carried out at this time. Instructions for examination of the breast included the following.

1. Observation. The patient should place herself before a mirror with her arms at her sides. She should carefully examine her breasts for symmetry, size, and shape, searching for any evidence of puckering, dimpling of the skin, or retraction of the nipple. She should also look for any other changes, such as discoloration, discharge, and tenderness and swelling. She should then raise her arms above her head and again study her breasts in the mirror, looking for the same physical signs.
She should also be alert for any evidence of fixation of the breast tissue to the chest wall. This may be displayed as she moves her arms and shoulders.

2. Palpation. This should be performed in the reclining position. This position permits the breasts to spread over a greater area and thins the breast tissue, making accurate palpation easier. A small pillow or folded towel should be placed beneath the shoulder on the side of the breast to be examined. This raises that side of the body and distributes the weight of the breast tissue more evenly over the chest wall. The arm on the side to be first examined is placed at her side, the breast is gently examined with the flat surface of the fingers of her opposite hand. The technique calls for gentle palpation of the breast tissue against the chest wall, usually beginning on the outer half of the breast and systematically covering the entire half of the breast, paying particular attention to the upper outer quadrant where the axillary tail of breast tissue is thickest and where most tumors occur.

3. She should then raise the arm above her head and thoroughly examine the inner half of the breast beginning at the sternum. When the entire breast has been palpated, the pillow is placed beneath the opposite shoulder and the woman investigates the second breast in exactly the same manner. Palpation of the breast should be thorough and unhurried. Every portion of the breast must be deliberately and carefully examined if small lesions are to be detected.
4. The patient should be instructed to place the greatest emphasis on the regions where most breast cancers develop, namely in the axillary tail of the breast and beneath the nipple. If the technique is to have any meaning, she must establish a definite habit pattern and conduct a thorough examination at monthly intervals. The method will only be effective if it is used regularly (Judge and Zuidema 1963).

The researcher served as a resource person giving information to supplement the Cancer Society film and answering questions. The researcher added factual information, including the frequency of breast cancer with cure rate as well as significance of breast feeding.

**Sample**

The participants were selected with the aid of Carol Stalcup of the American Cancer Society. The University Dames Club was selected because they demonstrated interest in the Cancer Society program relating to self-breast examination during the study period.

**Development of Questionnaire**

The first questionnaire included questions about demographic characteristics, past information about cancer, family history, patient history, knowledge, performance and attitudes. The second and third questionnaires included questions relating to knowledge and attitudes. The third questionnaire also included the question about performance.

Demographic characteristics included age, race, nationality, marital status, number of children and grade last attended in school.
The first two questions dealt with past information about cancer and self-examination of the breast. The researcher wondered if previous knowledge affected knowledge and performance.

1. Within the past six months, have you obtained information about cancer? If yes, describe.

2. Have you obtained information about self-examination of the breast prior to this meeting? If yes, describe.

The sources of information fell into the following categories:
(a) books, pamphlets, magazines and newspapers; (b) health provider;
(c) Cancer Society; (d) professional education; (e) none; (f) source not given.

Questions three and four dealt with another health behavior—namely, having a physical examination. Question four verified the accuracy of the answer to question three. The purpose of these questions was to determine if there is a correlation between having an annual physical examination and the performance of self-examination of the breast. The questions and categories of answers were:

3. How often do you have a physical examination?
   a. Every year
   b. Every two years
   c. Rarely
   d. Never

4. When was your last physical examination? Date (please give month and year)_______________________________.
a. Within last 6 months.
b. Within last 12 months.
c. Within last 24 months.

Question 5 provided information about family history of cancer. It was thought that there might be a correlation between family history and the performance of self-examination of the breast. It was also thought that the relationship of the person or the body location of the cancer might have an effect on performance.

5. Does your family have a history of cancer? Yes No____

a. If yes, state relationship of this person to you.
   1) Grandparent
   2) Parent
   3) Aunt
   4) Not applicable.

b. What was the body location of the cancer?
   1) Breast
   2) Uterus and ovaries
   3) Other
   4) Not applicable.

Questions 6, 7, 8 and 10 dealt with the health history of the woman herself. It was thought that these factors might affect knowledge and performance.

6. Have you ever had a lump in your breast? Yes No____

Who found it?
a. Yourself
b. Health professional
c. Other
d. Not applicable.

7. Have you ever had a breast abscess? Yes____ No____

8. Have you breastfed your children?
   a. Yes
   b. No
   c. Not applicable.

Those who breastfed their children should perceive themselves as having less risk of developing breast cancer.

10. Have you ever had breast cancer? Yes____ No____
    If yes, when? ________________________________

There were nine questions used to measure knowledge. Increase in knowledge was measured by an increase in the number of correct answers.

9. What is the significance of breast feeding as far as breast cancer is concerned?
   a. Reduces risk of breast cancer (correct answer)
   b. No significance
   c. Other answer
   d. Don't know
   e. No response
12. Describe the best time for self-examination of the breast during the child-bearing years.
   a. Before menstruation
   b. During menstruation
   c. After menstruation (correct answer)
   d. Mid-cycle
   e. Monthly
   f. Don't know
   g. No response

13. Describe the best time for self-examination of the breast during the climacteric or post-menopausal stage of life.
   a. 1st day of each month (correct answer)
   b. Monthly
   c. Other answer
   d. Don't know
   e. No response

14. You should examine your breasts by observation while
   a. Sitting (correct answer)
   b. Standing (correct answer)
   c. Lying down
   d. Don't know
   e. No response

15. You should examine your breasts by palpation while
   a. Sitting
   b. Lying down (correct answer)
c. Standing
d. Don't know
e. No response

16. Most tumors are located in which part of the breast?
   a. Lower outer
   b. Upper outer (correct answer)
   c. Upper middle
d. Don't know
e. No response

In the questionnaires given after the showing of the film, this question is stated: According to the film, most tumors are located in which part of the breast?

18. What do you look for besides lumps when examining your breasts by palpation and observation?
   a. Unequal size
   b. Puckering and dimpling
c. Discharge
d. Discoloration
e. Tenderness and swelling
   f. Inverted nipples
g. Any changes
(All are correct answers.)
h. Don't know
i. No response
j. Incorrect answer
19. Cancer of the breast is one of the most common cancers in women. How many women do you think have breast cancer?
   a. One out of 100
   b. One out of 5
   c. One out of 20 (correct answer)
   d. One out of 500

20. Do you feel that breast cancer can be cured?
   a. Sometimes (correct answer)
   b. Never
   c. Always

   This question was also used to measure attitude. People will practice a preventive health behavior to the degree that they think the disease can be cured.

   There were five other questions dealing with attitude. Health behaviors will be accepted to the degree that the person thinks he can contract the disease, to the degree that the person thinks the disease is serious and to the degree that the person thinks the disease can be cured (Donaldson 1970a).

23. How serious is breast cancer?
   a. Very serious
   b. Moderately serious
   c. Not serious

24. What do you think is the possibility of your getting breast cancer?
a. Very likely
b. Possible
c. Very slight
d. Impossible

17. How likely would you be able to find a lump yourself?
   a. Not likely
   b. Likely
   c. Very likely

This question attempted to measure the person's confidence in her ability to find a breast cancer.

21. What best reflects your feeling about self-examination of the breast?
   a. Not acceptable
   b. Would be acceptable if done during bathing
   c. Is a desirable practice

This question attempts to measure how acceptable self-examination of the breast is to the person.

22. Would you consider the possibility of teaching another member of your family or a friend about self-examination of the breast?
   a. Yes
   b. No
   c. Maybe
This question measured acceptability and feeling of confidence about performance of self-examination of the breast.

Question 11 is the question that measured performance.

11. How often do you examine your breasts?
   a. Weekly
   b. Bi-monthly
   c. Monthly (correct answer)
   d. Occasionally
   e. Rarely
   f. Never

The last question was included to determine the person's motivation for coming to the program.

25. Why did you come to this program? Please answer in your own words.
   a. To learn about cancer
   b. Social participation
   c. Family history of cancer

Analysis of Data

Each person was identified with a code number that was used for all three questionnaires. The data obtained from the questionnaires was categorized and tabulated by the researcher. Key sort cards were used and the data was computerized.

Statistical analysis was done using chi-square distribution. The level of significance for this study was .05. The findings are described in Chapter 4.
CHAPTER 4

PRESENTATION AND DISCUSSION OF THE DATA

Twenty-three women came to the Cancer Society program and completed the first two questionnaires. Twenty-two of these women, or 92 percent, completed the third questionnaire which had been mailed to them after three months. One of the questionnaires was returned to the researcher because the woman had moved and the forwarding address was incorrect.

Characteristics of the Population

The biographical information included age, race, nationality, marital status, number of children and the grade in school last attended. All of the women were Caucasian with no essential difference in nationality. All but one of them were married. The ages ranged from 19 to 38 years of age. Thirteen were 25 years of age and younger and ten were older. The number of children ranged from 0 to 2 with a mean of .78.

The highest level of education attended for each woman was categorized as elementary school (through grade 8), high school, college and graduate school. Only one woman had an eighth-grade education or less. Four participants had attended high school, 15 attended college and three had received graduate education. The mean and the mode for this group was college education level.
Past Information About Cancer

The women were asked to describe any past information they had received about cancer in general and then specifically about self-examination of the breast. Ten women had received past information about cancer within the last six months and 13 had not. Sixteen women had received past information about self-examination of the breast and seven had not. Health professionals, usually physicians, were listed as the source of information about cancer by only five women. Nine women gave health professionals, also usually the physician, as the source of information about self-examination of the breast. The sources of past information about cancer are described in Table 1.

Table 1. Source of Past Information About Cancer as Indicated by Participants in a Cancer Society Program on Self-examination of the Breast.

<table>
<thead>
<tr>
<th>Source of Information</th>
<th>Number of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books, pamphlets, magazines and newspapers</td>
<td>5</td>
</tr>
<tr>
<td>Health provider</td>
<td>5</td>
</tr>
<tr>
<td>None</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
</tr>
</tbody>
</table>
Five of the women listed books, pamphlets, magazines and newspapers as their past source of information and five women listed health providers as the source. Fifty percent of the women had received no information about cancer. However, this was in the past six months and since these women were well educated, it would be presumed that they had received information about cancer at some time in the past.

Table 2 describes the past sources of information about self-examination of the breast.

Table 2. Source of Past Information About Self-examination of the Breast as Indicated by Study Participants.

<table>
<thead>
<tr>
<th>Source of Information</th>
<th>Number of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books, pamphlets, magazines and newspapers</td>
<td>3</td>
</tr>
<tr>
<td>Health professionals</td>
<td>9</td>
</tr>
<tr>
<td>Cancer Society</td>
<td>2</td>
</tr>
<tr>
<td>Nursing school</td>
<td>1</td>
</tr>
<tr>
<td>Source not given</td>
<td>1</td>
</tr>
<tr>
<td>None</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>
In summary, over one-half (13) of the women had received no information about cancer within the past six months. Sixteen women had received some previous information about self-examination of the breast. Only nine of these participants had received information from health providers.

**Patient History**

The women were asked how often they have a physical examination. Nineteen of the 23 women said that they have a physical examination every year. Only two said they had a physical examination rarely. A yearly physical examination was the mean and the mode. When asked for the date of the last physical examination, 14 of the dates fell within the last six months and six fell between 7 and 12 months. Three women gave dates falling within the last 13 to 24 months. None of the women gave a date that was more than two years ago so none of these women could be considered as having physical examinations rarely. The mean and the mode was within the past six months. The data about physical examinations are presented in Tables 3 and 4.

Only two of the women reported ever having a lump in her breast. One woman found the lump herself and the other lump was found by a health professional. None of the women had had a breast abscess and none had had breast cancer.

Seven of the women had breast-fed their children and six had not. Ten of the women had no children.
Table 3. Frequency of Physical Examination of 23 Women Participants.

<table>
<thead>
<tr>
<th>How Often Physical Examination</th>
<th>Number of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every year</td>
<td>19</td>
</tr>
<tr>
<td>Every two years</td>
<td>2</td>
</tr>
<tr>
<td>Rarely</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
</tr>
</tbody>
</table>

Table 4. Date of Last Physical Examination.

<table>
<thead>
<tr>
<th>Date of Last Physical Examination</th>
<th>Number of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within last 6 months</td>
<td>14</td>
</tr>
<tr>
<td>Within last 7-12 months</td>
<td>6</td>
</tr>
<tr>
<td>Within last 13-24 months</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
</tr>
</tbody>
</table>
Family History

The questionnaire asked if there was a family history of cancer. If so, it asked for the relationship of the person involved and for the body location of the cancer. Twelve women, or 50 percent, had a family history of cancer and 11 had no family history of cancer. Tables 5 and 6 present the relationship of the person involved and the body location of the cancer.

Table 5. Relationship of Family Member with Cancer to Participant.

<table>
<thead>
<tr>
<th>Relationship of Person</th>
<th>Number of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grandparent</td>
<td>8</td>
</tr>
<tr>
<td>Parent</td>
<td>2</td>
</tr>
<tr>
<td>Aunt</td>
<td>2</td>
</tr>
<tr>
<td>No family history of cancer</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
</tr>
</tbody>
</table>
Table 6. Body Location of Cancer of Family Member as Designated by Participant.

<table>
<thead>
<tr>
<th>Body Location of Cancer</th>
<th>Number of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>4</td>
</tr>
<tr>
<td>Uterus and ovaries</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
</tr>
<tr>
<td>No family history of cancer</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
</tr>
</tbody>
</table>

Knowledge and Performance of Self-examination of the Breast

Nine questions were designed to measure knowledge of cancer of the breast. These questions were asked before the Cancer Society program, immediately after the program, and three months later. Knowledge was measured by the number of correct answers. Twenty-three women completed the first two questionnaires and 22 returned the third questionnaire. Table 7 lists the questions asked and the number of women answering that question correctly on each questionnaire.

There was a significant increase in the number of correct answers between Questionnaire I and Questionnaire II and between Questionnaire I and Questionnaire III. There was no significant difference between the number of correct answers between Questionnaire II and Questionnaire III.
Table 7. Number of Women Giving Correct Response to Question Measuring Knowledge Before, Immediately After and Three Months After an Educational Program About Cancer of the Breast.

<table>
<thead>
<tr>
<th>Question on Knowledge</th>
<th>Number of Women Answering Question Correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
</tr>
<tr>
<td></td>
<td>test</td>
</tr>
<tr>
<td></td>
<td>Post</td>
</tr>
<tr>
<td>1. What is the significance of breast feeding as far as breast cancer is concerned?</td>
<td>8(34.8%)</td>
</tr>
<tr>
<td>2. Describe the best time for self-examination of the breast during the child-bearing years.</td>
<td>8(34.8%)</td>
</tr>
<tr>
<td>3. Describe the best time for self-examination of the breast during the climacteric or post-menopausal stage of life.</td>
<td>2(8.7%)</td>
</tr>
<tr>
<td>4. You should examine your breasts by observation while ___________________________</td>
<td>12(52.2%)</td>
</tr>
<tr>
<td>5. You should examine your breast by palpation while ___________________________</td>
<td>19(82.6%)</td>
</tr>
<tr>
<td>6. Most tumors are located in which part of the breast?</td>
<td>6(26.1%)</td>
</tr>
<tr>
<td>7. What do you look for besides lumps when examining your breasts by palpation and observation?</td>
<td>11(47.8%)</td>
</tr>
<tr>
<td>8. Cancer of the breast is one of the most common cancers in women. How many women do you think have breast cancer?</td>
<td>8(34.8%)</td>
</tr>
<tr>
<td>9. Do you feel that breast cancer can be cured?</td>
<td>20(87%)</td>
</tr>
</tbody>
</table>
Performance was measured by asking the question, "How often do you examine your breasts?" before the Cancer Society program and again three months later. Before the program, 17.4 percent or four of the women claimed to practice monthly self-examination of the breast. Three months later there was an increase to 43.5 percent or ten of the women. Table 8 presents the data about frequency of performance of self-examination of the breast.

Table 8. Frequency of Self-examination of the Breast as Stated on a Pre- and Post-questionnaire as a Part of an Educational Program About Cancer of the Breast.

<table>
<thead>
<tr>
<th>Frequency of Self-examination of the Breast</th>
<th>Number of Women Before Program</th>
<th>Number of Women Three Months After Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly</td>
<td>1(4.3%)</td>
<td>--</td>
</tr>
<tr>
<td>Bi-monthly</td>
<td>1(4.3%)</td>
<td>1(4.3%)</td>
</tr>
<tr>
<td>Monthly</td>
<td>4(17.4%)</td>
<td>10(43.5%)</td>
</tr>
<tr>
<td>Occasionally</td>
<td>8(34.8%)</td>
<td>8(34.8%)</td>
</tr>
<tr>
<td>Rarely</td>
<td>7(30.4%)</td>
<td>2(8.7%)</td>
</tr>
<tr>
<td>Never</td>
<td>2(8.7%)</td>
<td>1(4.3%)</td>
</tr>
<tr>
<td>No response</td>
<td>--</td>
<td>1(4.3%)</td>
</tr>
<tr>
<td>Totals</td>
<td>23</td>
<td>23</td>
</tr>
</tbody>
</table>
The questions relating to the significance of breast feeding and to the best time for self-examination of the breast during the childbearing years were answered correctly by only eight or 34.8 percent of the women before the educational program. This was increased to 100 percent or 23 of the women answering these questions correctly immediately after the program. Nineteen or 82.6 percent of the women were still able to answer these questions correctly after three months. Retention of knowledge in this case was greater than anticipated from information given in the literature. Probably this was due to the importance of the information to the women involved. Similar results were found with the question relating to examination of the breasts by observation. Twelve or 52.2 percent of the women answered this question correctly before the educational experience. Twenty-two or 95.6 percent of the women answered the question correctly immediately after the program and twenty or 86.9 percent still answered the question correctly three months later. Eleven or 47.8 percent of the women answered the question relating to what you look for besides lumps correctly before the program. After the program, twenty-one or 91.4 percent of the women answered the question correctly and eighteen or 78.4 percent still answered it correctly after three months.

The question relating to the best time to examine your breasts during the climacteric stage of life was only answered correctly by two or 8.7 percent before the program and three or 13 percent after the program. Three months later the number of women answering this question correctly had increased to eight or 34.8 percent. The women apparently
did better with this question after they had had time to think about it.

Two questions were answered correctly by the majority of the women before and after the program and three months later. The question about the curability of cancer was answered correctly by twenty or 87 percent of the women before the program and by nineteen or 82.6 percent of the women three months later. The question relating to examination of the breast by palpation was answered correctly by nineteen or 82.6 percent of the women before the program and twenty-one or 91.3 percent of the women after three months.

The question relating to the location of most breast tumors was answered correctly by six or 26.1 percent of the women before the educational program and twenty-two or 95.7 percent of the women immediately after the program. Fifteen or 65.2 percent of the women still answered this question correctly after three months. Eight or 34.8 percent of the women answered correctly before the program the question about the frequency of breast cancer. This increased to nineteen or 82.6 percent of the women immediately after the program and then decreased to thirteen or 56.5 percent three months later. These two questions demonstrated the greatest decrease in retention of learning. However, retention was still over 50 percent which is greater than anticipated.

Before the educational program none of the women were able to answer all of the nine questions correctly. Only one or 4.3 percent of the women answered seven questions correctly. Four or 17.4 percent of the women answered only one question correctly. The mode was four
questions answered correctly. Immediately after the program fourteen or 60.9 percent of the women answered eight questions correctly. None of the women had less than five correct answers and two or 8.7 percent of the women answered all of the questions correctly. Three months later four or 17.4 percent of the women answered all of the questions correctly. Eleven or 47.8 percent of the women were still able to answer seven or eight questions correctly.

Six women practiced self-examination of the breast regularly before the Cancer Society program. This increased to 11 women practicing regular self-examination of the breast three months after the program. The number of women practicing occasional self-examination of the breast remained the same. Before the program, nine women practiced self-examination of the breast rarely or never. This decreased to three women practicing self-examination of the breast rarely or never three months after the program.

The question asked by the study was, "Is there an increase in the performance of monthly self-examination of the breast as the result of knowledge and attitude change as measured by a test before and three months after an educational experience?" This study demonstrated a statistically significant relationship between knowledge and performance both before and three months after the Cancer Society program. The level of significance before the Cancer Society program was .0107. Three months after the Cancer Society program the level of significance was .0222.
Other variables were analyzed for their affect on knowledge and performance. Past information about self-examination of the breast had no relationship to knowledge or performance. The level of significance for knowledge was .3728 and for performance was .2561. There was no significant relationship between knowledge and family history of cancer with a level of significance of .2402. Family history of cancer also had no significant relationship to performance with a level of significance of .8347. The frequency of the physical examinations had no relationship to performance of self-examination of the breast. The level of significance was .2882. The researcher also wondered if the motivation for attending the program would affect performance but no relationship was seen here. The level of significance was .2439.

In summary, there was a definite increase in knowledge and performance after health education was presented. A positive relationship was found between knowledge and performance.

Attitudes

Seven questions were used to test attitude before and after the Cancer Society program.

Before the program 87 percent of the women felt cancer could be cured "sometimes." Immediately after the program 78.3 percent of the women gave the same response and three months later this response was given by 82.6 percent of the women. When asked about the seriousness of breast cancer, 82.6 percent felt it was very serious before the program, 78.3 percent immediately after the program and 78.3 percent gave this response three months later. Before the program 91.3 percent of the
women felt it was possible for them to get breast cancer. Three months later this response was given. Eighty-seven percent gave this response immediately after the program. The responses showed no significant difference in the degree that the women thought that cancer can be cured, that it is serious or that it is possible for them to get when tested before and after the educational program.

When asked their reason for coming to the program, 56.5 percent came to learn about cancer, 4.3 percent came because of a family history of cancer, and 39.1 percent came for social reasons.

Self-examination of the breast was seen as a desirable practice by 87 percent of the women before the program and by 95.7 percent immediately after the program and three months later. Before the program 78.3 percent felt that they would teach self-examination of the breast to another and 82.6 percent gave this response immediately after the program and again three months later. Only 8.7 percent of the women felt that they were not likely to find a breast lump before the program and no one gave this response after the program. The responses on the attitude questions are given in Table 9. The first four questions asked about cure for breast cancer, the likelihood of finding a lump through self-examination, acceptability of incorporating the practice of self-examination of the breast and the possibility of teaching another person. Questions 5, 6, and 7 asked about the seriousness of breast cancer, possibility of getting breast cancer and the reason for attending the program.
Table 9. Attitudes About Cancer of the Breast.

<table>
<thead>
<tr>
<th>Questions and Answers</th>
<th>Number of Women Giving Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
</tr>
<tr>
<td></td>
<td>Post</td>
</tr>
<tr>
<td><strong>1. Do you feel that breast cancer can be cured?</strong></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td>20(87%)</td>
</tr>
<tr>
<td>Never</td>
<td>--</td>
</tr>
<tr>
<td>Always</td>
<td>3(13%)</td>
</tr>
<tr>
<td>No response</td>
<td>--</td>
</tr>
<tr>
<td><strong>2. How likely would you be able to find a lump yourself?</strong></td>
<td></td>
</tr>
<tr>
<td>Not likely</td>
<td>2(8.7%)</td>
</tr>
<tr>
<td>Likely</td>
<td>13(56.5%)</td>
</tr>
<tr>
<td>Very likely</td>
<td>8(34.8%)</td>
</tr>
<tr>
<td>No response</td>
<td>--</td>
</tr>
<tr>
<td><strong>3. What best reflects your feeling about self-breast examination?</strong></td>
<td></td>
</tr>
<tr>
<td>Not acceptable</td>
<td>--</td>
</tr>
<tr>
<td>Would be acceptable if done during bathing</td>
<td>2(8.7%)</td>
</tr>
<tr>
<td>Is a desirable practice</td>
<td>20(87%)</td>
</tr>
<tr>
<td>Don't know</td>
<td>1(4.3%)</td>
</tr>
<tr>
<td>No response</td>
<td>--</td>
</tr>
<tr>
<td><strong>4. Would you consider the possibility of teaching another member of your family or a friend about self-breast examination?</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>18(78.3%)</td>
</tr>
<tr>
<td>No</td>
<td>--</td>
</tr>
<tr>
<td>Maybe</td>
<td>5(21.7%)</td>
</tr>
<tr>
<td>No response</td>
<td>--</td>
</tr>
<tr>
<td><strong>5. How serious is breast cancer?</strong></td>
<td></td>
</tr>
<tr>
<td>Very serious</td>
<td>19(82.6%)</td>
</tr>
<tr>
<td>Moderately serious</td>
<td>4(17.4%)</td>
</tr>
<tr>
<td>Not serious</td>
<td>--</td>
</tr>
<tr>
<td>No response</td>
<td>--</td>
</tr>
</tbody>
</table>
Table 9, continued.

<table>
<thead>
<tr>
<th>Questions and Answers</th>
<th>Number of Women Giving Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
</tr>
<tr>
<td>6. What do you think is the possibility of your getting breast cancer?</td>
<td></td>
</tr>
<tr>
<td>Very likely</td>
<td>1(4.3%)</td>
</tr>
<tr>
<td>Possible</td>
<td>21(91.3%)</td>
</tr>
<tr>
<td>Very slight</td>
<td>1(4.3%)</td>
</tr>
<tr>
<td>No response</td>
<td>--</td>
</tr>
<tr>
<td>7. Why did you come to this program?</td>
<td>13(56.5%)</td>
</tr>
<tr>
<td>To learn about cancer</td>
<td>13(56.5%)</td>
</tr>
<tr>
<td>Social</td>
<td>9(39.1%)</td>
</tr>
<tr>
<td>Family history of cancer</td>
<td>1(4.3%)</td>
</tr>
</tbody>
</table>
The attitude responses of these women could be viewed as positive responses both before and three months after the educational experience. One major change in response could be seen, however. Before the educational experience 34.8 percent of the women felt they were very likely to find a breast lump. This response was given by 91.3 percent of the women immediately after the program and by 82.6 percent of the women three months later. This shows a significant increase in their confidence and knowledge about their ability to examine their breasts and to find an abnormality if present. The women came to the Cancer Society program motivated with a high attitude about cure so that no large change was anticipated or needed. This may be due to the educational level of the participants of this study.
CHAPTER 5

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter includes findings, conclusions and recommendations of the study. Section one on findings deals with the conceptual framework and the review of literature. Section two is based on the major conclusions presented in Chapter 4. The recommendations are presented as suggestions for further study.

This study dealt with the question: "Is there an increase in the performance of monthly self-examination of the breast as the result of knowledge and attitude change as measured by a test before and three months after an educational experience?"

Findings

The framework for this study was based on behavior change. Attitude change often must accompany behavior change. Behavior change or performance of monthly self-examination of the breast was measured by asking the participants how often they practiced self-examination of the breast. A set of questions was designed to measure attitude change. Three months after the Cancer Society program, there was a significant increase in the number of women practicing monthly self-examination of the breast. This group of women was seemingly well motivated at the onset of the study but one major attitude change was seen. They
expressed an increase in confidence in their ability to examine the breasts and find an abnormality, if present.

The review of the literature contained four articles pertaining to self-examination of the breast. Only 34 percent of an undefined number of women questioned in a recent Gallup Poll had been taught self-examination of the breast by a physician (American Cancer Society 1973). Thiessen (1971) reported a study done at the Breast Disease Clinic at the Preventive Medicine Institute-Strang Clinic in New York. Regular self-examination of the breast was claimed by 37.7 percent of the women. This study showed that 17.4 percent of the women were practicing monthly self-examination of the breast before the Cancer Society program and 43.5 percent practicing monthly self-examination of the breast three months later.

There were also two letters to the editor of the British Medical Journal. Patey (1970) proposed that women be taught to examine their breasts while bathing because of psychological overtones. Donaldson (1970b) responded to this letter by questioning whether this would constitute a conscious search. This study asked the women about the acceptability of self-examination of the breast. Before the Cancer Society program, 8.7 percent of the women said that self-examination of the breast would be acceptable if done during bathing. Only 4.3 percent of the women gave this response immediately after the program and no one gave this response three months later.
Conclusions

The major conclusion presented in Chapter 4 was that there was a significant increase in performance of monthly self-examination of the breast three months after an education program. There was a significant increase in knowledge after the Cancer Society program which was retained three months later. There was a significant relationship between knowledge and performance of monthly self-examination of the breast. Past information about cancer and self-examination of the breast, frequency of physical examinations, family history of cancer and the reason for coming to the Cancer Society program had no relationship to knowledge and performance. There was one significant attitude change demonstrated after the Cancer Society program. The women indicated that they were able to examine their breasts with confidence in their ability to find an abnormality.

Recommendations

Based on the findings and conclusions of this study, the following recommendations are made.

1. Replicate the study, using a larger sample.
2. Use a target population that includes single women as well as married women and women of a wider age range.
3. Use a target population that includes women with less formal education and lower income.
4. Compare the effects of group instruction, as used in the study, with a specific individualized approach.
5. Develop a tool to study attitude changes.

6. Extend the period of the study over one year and measure change in knowledge and performance of self-examination of the breast at three months, six months and one year.
CHAPTER 6

SUMMARY

This study dealt with the question: "Is there an increase in performance of monthly self-examination of the breast as the result of knowledge and attitude change as measured by a test before and three months after an educational experience?"

This study is of value to professional nurses, physicians, the American Cancer Society and all health professionals engaged in providing educational experiences aimed at early detection of breast cancer. Because there is a reasonable chance of cure if breast cancer is found early, it is important to measure the effectiveness of educational programs.

Factors affecting the adoption of health behaviors were the basis for the conceptual framework. These factors included the degree that the person thinks he can contract the disease, that he thinks the disease is serious and that he thinks the disease can be cured. Since attitude change often must accompany behavior change, educational experiences must be directed toward attitude change.

The study was conducted at the Student Union of The University of Arizona. Twenty-three women belonging to the University Dames Club were shown a film relating to self-examination of the breast. The researcher supplemented the film with additional information not included
in the film. The women completed a questionnaire before the Cancer Society program as a baseline on knowledge, performance and attitudes. A second questionnaire was given immediately after the program to measure immediate learning. The third questionnaire was mailed to the women three months later to measure retention of knowledge and any change in performance and attitudes.

The women were all caucasian with no essential difference in nationality. All but one of them were married. The number of children ranged from zero to two. The women ranged in age from 19 to 38 years. The last grade in school attended ranged from sixth grade to graduate education with the mode falling at the university level. Twelve of the women had a family history of cancer and 11 had no family history of cancer.

The data obtained from the questionnaires was categorized and tabulated by the researcher. Key sort cards were used and the data was computerized. Statistical analysis was done by using chi-square distribution. The level of significance for this study was .05.

This study revealed a significant increase in knowledge after the Cancer Society program and a significant increase in the number of women practicing monthly self-examination of the breast. A statistically significant relationship between knowledge and performance was demonstrated both before and three months after the Cancer Society program. The level of significance before the Cancer Society program was .0107 and three months later was .0222. There also was no significant relationship between past information, family history of cancer, the
frequency of physical examinations or motivation for coming to the program, and knowledge and performance. A major change in attitude was demonstrated when the women indicated that they were able to examine their breasts with confidence in their ability to find an abnormality.

The researcher recommends that this study be replicated, using a larger sample and a longer period of time to demonstrate the long-term effects of health education on a more generalized population. It is also recommended that the effects of group instruction, as used in the study, be compared with a more individualized instruction.
APPENDIX A

THE CONSENT FORM

By signing this Consent Form, I agree to participate in a study about breast cancer and self-examination of the breast. The study is conducted by Beverly Lambert, R.N., a student in the Graduate Program in the University of Arizona College of Nursing as a part of program requirements. I understand that I am to complete data information today and, after three months, a follow-up questionnaire will be sent to my home for additional data. A stamped envelope will be included for convenience.

All identification of personal information will be completely confidential consistent with recommendations of the Committee on Human Rights. Report of the findings of the study will be anonymous.

Signature_________________________

Date_________________________._____

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APPENDIX B

THE QUESTIONNAIRES
Questionnaire I

Name: ___________________________ Code Number: ___________________________

Address: ___________________________ Date: ___________________________

Age: ___________________________ Marital Status: ___________________________

Race: ___________________________ Number of Children: ______________________

Nationality: ___________________________ Grade in School Last Attended: ______

Directions: This questionnaire relates to breast cancer and self-examination of the breast. Please answer all questions to the best of your knowledge.

1. Within the past 6 months, have you obtained information about cancer?
   Yes____ No____
   If yes, describe.

2. Have you obtained information about self-examination of the breast prior to this meeting?
   Yes____ No____
   If yes, describe.

3. How often do you have a physical examination?
   ______ Every year
   ______ Every two years
   ______ Rarely
   ______ Never

4. When was your last physical examination?
   Date (please give month and year)________________________________________

5. Does your family have a history of cancer?
   Yes____ No____
   a. If yes, state relationship of this person or persons to you.
   b. What was the body location of the cancer?
6. Have you ever had a lump in your breast?
   Yes____ No____
   Who found it?
   _____Yourself
   _____Health professional
   _____Other

7. Have you ever had a breast abscess?
   Yes____ No____

8. Have you breastfed your children?
   Yes____ No____

9. What is the significance of breastfeeding as far as breast cancer is concerned?

10. Have you ever had breast cancer?
    Yes____ No____
    If yes, when?________________________________________

11. How often do you examine your breasts?
    _____Weekly
    _____Bi-monthly
    _____Monthly
    _____Occasionally
    _____Rarely
    _____Never

12. Describe the best time for self-examination of the breast during the child-bearing years.

13. Describe the best time for self-examination of the breast during the climacteric or post-menopausal stage of life.

14. You should examine your breasts by observation while
    _____Sitting
    _____Standing
    _____Lying down
15. You should examine your breasts by palpation while

_____ Sitting
_____ Lying down
_____ Standing

16. Most tumors are located in which part of the breast?

_____ Lower outer
_____ Upper outer
_____ Upper middle

17. How likely would you be able to find a lump yourself?

_____ Not likely
_____ Likely
_____ Very likely

18. What do you look for besides lumps when examining your breasts by palpation and observation?

19. Cancer of the breast is one of the most common cancers in women. How many women do you think have breast cancer?

_____ One out of 100
_____ One out of 5
_____ One out of 20
_____ One out of 500

20. Do you feel that breast cancer can be cured?

_____ Sometimes
_____ Never
_____ Always

21. What best reflects your feeling about self-examination of the breast?

_____ Not acceptable
_____ Would be acceptable if done during bathing
_____ Is a desirable practice

22. Would you consider the possibility of teaching another member of your family or a friend about self-examination of the breast?

Yes____ No____ Maybe____

23. How serious is breast cancer?

_____ Very serious
_____ Moderately serious
_____ Not serious
24. What do you think is the possibility of your getting breast cancer?

_____ Very likely  
_____ Possible  
_____ Very slight  
_____ Impossible

25. Why did you come to this program? Please answer in your own words.

Comments about questionnaire.
This questionnaire deals with information given during a Cancer Society program relating to breast cancer. Please answer all questions to the best of your knowledge.

1. To the best of your knowledge, when is the best time to examine your breasts if a woman is in the child-bearing years?
   - Before menstruation
   - During menstruation
   - Right after menstruation

2. When is the best time for self-examination of the breast during the climacteric or post-menopausal stage of life?

3. You should examine your breasts by observation while
   - Sitting
   - Standing
   - Lying down

4. You should examine your breasts by palpation while
   - Sitting
   - Standing
   - Lying down

5. According to the film, most tumors are located in which part of the breast?
   - Lower outer
   - Upper outer
   - Upper middle

6. How likely would you be able to find a lump yourself?
   - Not likely
   - Likely
   - Very likely

7. What do you look for besides lumps when examining your breasts by palpation and observation?
8. How many women do you think have breast cancer?
   - One out of 100
   - One out of 5
   - One out of 20
   - One out of 500

9. Do you feel breast cancer can be cured?
   - Sometimes
   - Never
   - Always

10. What is the significance of breast feeding as far as breast cancer is concerned?

11. What best reflects your feeling about self-examination of the breast?
   - Not acceptable
   - Would be acceptable if done during bathing
   - Is a desirable practice

12. Would you consider the possibility of teaching another member of your family or friend about self-breast examination?
   - Yes
   - No
   - Maybe

13. How serious is breast cancer?
   - Very serious
   - Moderately serious
   - Not serious

14. What do you think is the possibility of your getting breast cancer?
   - Very likely
   - Possible
   - Very slight
   - Impossible
This questionnaire deals with information given during a Cancer Society program relating to breast cancer. Please answer all questions to the best of your knowledge.

1. To the best of your knowledge, when is the best time to examine your breasts if a woman is in the child-bearing years?
   - _____Before menstruation
   - _____During menstruation
   - _____Right after menstruation

2. When is the best time for self-examination of the breast during the climacteric or post-menopausal stage of life?

3. You should examine your breasts by observation while
   - _____Sitting
   - _____Standing
   - _____Lying down

4. You should examine your breasts by palpation while
   - _____Sitting
   - _____Standing
   - _____Lying down

5. According to the film, most tumors are located in which part of the breast?
   - _____Lower outer
   - _____Upper outer
   - _____Upper middle

6. How likely would you be able to find a lump yourself?
   - _____Not likely
   - _____Likely
   - _____Very likely

7. What do you look for besides lumps when examining your breasts by palpation and observation?
8. How often do you examine your breasts?
   ____ Weekly
   ____ Bi-monthly
   ____ Monthly
   ____ Occasionally
   ____ Rarely
   ____ Never

9. How many women do you think have breast cancer?
   ____ One out of 100
   ____ One out of 5
   ____ One out of 20
   ____ One out of 500

10. Do you feel breast cancer can be cured?
    ____ Sometimes
    ____ Never
    ____ Always

11. What is the significance of breast feeding as far as breast cancer is concerned?

12. What best reflects your feeling about self-examination of the breast?
    ____ Not acceptable
    ____ Would be acceptable if done during bathing
    ____ Is a desirable practice

13. Would you consider the possibility of teaching another member of your family or friend about self-breast examination?
    Yes ____ No ____ Maybe ____

14. How serious is breast cancer?
    ____ Very serious
    ____ Moderately serious
    ____ Not serious

15. What do you think is the possibility of your getting breast cancer?
    ____ Very likely
    ____ Possible
    ____ Very slight
    ____ Impossible
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