A BREAST HEALTH MODEL FOR OLDER WOMEN

Scholarly Project for the Degree of M. S. N.

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MADELYN JEAN ZEIGLER

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By

Madelyn Jean Zeigler

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ABSTRACT

A BREAST HEALTH EDUCATION PROGRAM FOR OLDER WOMEN

By

Madelyn Jean Zeigler

Breast cancer is a leading cause of death in elderly women (American Cancer Society, 1988). Early diagnosis leads to early intervention and can lead to longer survival time. Educating women to understand and detect normal and abnormal changes in their breasts and motivating them to take action regarding self breast exam, clinical breast exam, and mammography is a health promotion technique that can lead to earlier breast cancer diagnosis, intervention, and longer survival time. Health maintenance is primarily the responsibility of the individual as health promotion is primarily the responsibility of the health care professional. The intent of this project is the development of a model which can be implemented by an advance practice nurse in the education of older women.

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INTRODUCTION

Background of the Problem

Cancer is an important public health problem in the United States. Cancer of the breast is the most common cancer in American women. It accounts for approximately thirty percent of new cancer cases nationally (Landis, Murray, Bolden, & Wingo, 1998; Nation Cancer Institute, 1998). Approximately 178,700 new cases of breast cancer are expected in 1998 (American Cancer Society, 1998, p.8). Being female puts all women at risk for breast cancer. Gender and age are the two greatest risk factors for developing breast cancer (Center for Disease Control, 1987). Cancer of the breast is the second leading cause of cancer deaths in women fifty five to seventy four years of age and the third leading cause of malignancy related deaths in women age seventy and older (Parker, Tong, Bolden, & Windgo, 1997). Sixty seven percent of all new breast cancer cases are detected in women greater than fifty years of age (Ellerhorst-Ryan, & Goeldner, 1992), and 43% of all new breast cancer cases occur in women sixty five years of age or older (Fox, Siu, & Stein, 1994). At age sixty, approximately 17 of every 1,000 women are expected to develop breast cancer within five years (Grand Rapids Clinical Oncology Program, 1998). The lifetime probability of developing breast cancer is one in eight and is based on maximum age interval of at least ninety five years (Feuer, Lop-ming, & Boring, 1993; ACS 1998; Engelking, & Kalinowski,

1995). This means that a woman has a one in eight chance of developing breast cancer if she lives to the age of ninety five. The biggest risk occurs after the age of fifty. Approximately two percent of the total risk occurs from birth to age fifty, five percent from age fifty to seventy, and four percent from age seventy to eighty five (Engleking & Kalinowski).

In Michigan, breast cancer is the second leading site of cancer for women. It accounts for approximately 33 % of the cancer cases among Michigan women (Michigan Department of Community Health, 1995). The reported number of breast cancer cases for Antrim, Grand Traverse, Benzie, Kalkaska, and Leelanau counties, the focus areas of this project, is 259 per 100,000 cases (Community Health Assessment, 1996).

The elderly population of Antrim, Benzie, Grand Traverse, Kalkaska, and Leelanau counties is increasing. The 1996 community health assessment for these counties has estimated their population growth through the year two thousand. The current population of these counties is: Antrim (18,897); Benzie (12,016); Grand Traverse (67,290); Kalkaska (14,038); and Leelanau (17,292) (U.S. Deptartment of Commerce, p 256-270). Antrim and Benzie counties should each have a 17% increase in population > 65years of age. Leelanau county should have a 15% increase in population > 65 years of age, while Kalkaska should have an estimated 13% increase in population of > 65 years of age. It is also estimated that Grand Traverse county should have an estimated 18½% increase in population (Community Health

Assessment, 1996). The rise in the elderly population increases the potential of breast cancer incidence for these five counties; this in turn reflects a need for a community breast health awareness program. All five counties have listed health education, health promotion and screening programs as targeted health goals for the future. However, no specific health goals have been targeted for breast education. The Community Health Assessment (1996) did indicate that at least sixty percent of the women, fifty years and older, in these counties received a clinical breast exam and mammography within the preceding one to two years. However, this still leaves 40% of the women fifty years or older without proper screening. Currently there are no educational programs that address this issue.

Statement of the Problem

There is an apparent lack of any educational breast health awareness program for women sixty five years of age and older for the five county area of Northwest lower Michigan consisting of Antrim, Benzie, Grand Traverse, Kalkaska, and Leelanau counties. Health education programs for older women need to make them aware that breast cancer screening should be a part of an expected physical or gynecological exam. A breast health education program for these women needs to identify proper screening practices, breast changes relevant to age, and the effective performance of self breast exam (SBE). It also needs to address the social, cultural, financial, and patient

provider issues that may preclude elderly women from doing a SBE or inhibit their seeking screening for breast cancer.

Project Goal

The goal of this scholarly project was to develop an educational model on breast care which targets women age sixty five and older in Antrim, Benzie, Kalkaska, Grand Traverse, and Leelanau counties. By implementing the educational model, the goal to motivate women to be active participants in their breast health may be realized. The objectives for this scholarly project include: 1) to utilize the Health Belief Model to identify barriers and ways to decrease these barriers, and thus increasing the motivation of these women to become active participants in their breast health, 2) to utilize adult learning techniques, 3) to utilize established social groups as a vehicle to increase the women's motivation and action, 4) to utilize oncology nurses as program presenters, and 5) to establish an evaluation plan.

Conceptual Definitions

Breast: The part of the female anatomy that is located between the second and sixth ribs between the sternal edge and midaxillary line. It is made up of glandular tissue, fibrous tissue, and fat (Bates, 1991).

Health: The actualization of inherent and acquired human potential through goal-directed behavior, self-care, and satisfying relationships with others while adjustments are made as needed to maintain structural integrity and harmony with relevant environments (Pender, 1996).

Educational Model: An interpretative picture based on specific theoretical presuppositions that infers teaching objectives, teacher qualities, content selection, and organizations. A basic scheme in which the system of teaching can be understood (Casagrnde et al., 1998).

Older Women: Persons of the female, ages 60-80, (Younkin, & Davis, 1994).

Conceptual Framework

The Health Belief Model (HBM) [Rosenstock, 1966] was selected to guide this project.

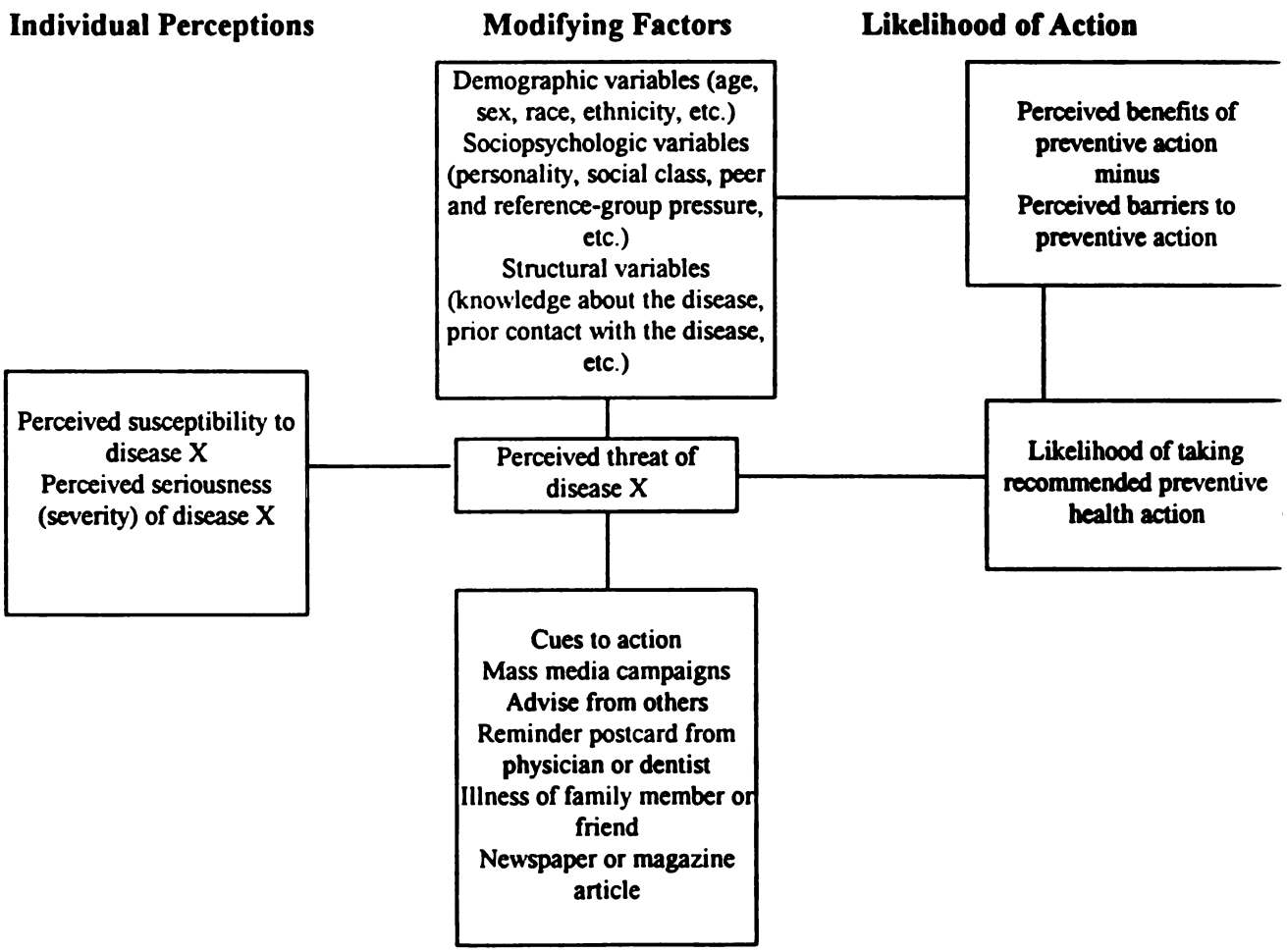

Figure 1: Health Belief Model

The Health Belief Model (Rosenstock, 1966) reflects the possible relationship between an individual perceptions, modifying factors, and the likelihood of action. The HBM, created by Rosenstock and associates (1966), relates psychological theories of decision making to an individuals decision about alternative health behaviors (Maiman, & Becker, 1974). It was formulated in an attempt to gain an understanding of why individuals who are without illness take action to avoid illness while others do not take any action to avoid illness (Pender, 1996, p.35). This framework suggests that an individual's beliefs about the availability and the benefits of various courses of action rather than the objective facts about the effectiveness of action will determine the course the individual will take. These beliefs are influenced by cultural beliefs, societal norms, and social groups. Whether or not an individual will act on their beliefs is determined by the perceived benefits and perceived barriers to action as well as the cues to action. If the negative aspects of taking action cause severe enough conflicting motives the individual may not proceed with action even though she perceives susceptibility (Rosenstock, 1974; Becker, Drachman, Kirscht, 1974).

The following conceptual definitions are important in order to understand the conceptual framework for this project and are noted in the Health Belief Model (Figure 1).

Perceived susceptibility: The individual's awareness of contracting a condition (Rosenstock, 1974).

Perceived severity: Feelings concerning the serious of contracting an illness or leaving it untreated. This includes both medical/clinical consequences and social consequences (Janz, & Becker, 1984).

Perceived benefits: The individual's belief that taking a particular action against the defined illness will reduce one's susceptibility or reduce ones severity, or both (Rosenstock, 1974).

Perceived barriers: The potential negative aspects that can result from taking action. This includes financial burden, pain, inconvenience, embarrassment, emotional and psychological stress (Rosentock, 1974).

Cues to action: Factors that serve as a trigger to initiate action. These factors can be internal such as perception of body image, or external, such as educational programs, support groups, social groups or media communication (Rosenstock, 1974).

Social groups: A group of persons with whom an individual maintains contact with and forms a type of social bond which influences how a person thinks acts, and reacts (Pender 1996).

Adaptation of the Health Belief Model to the Project

A breast health program for older women, those over age 65, may be a direct cue to action for some women to initiate the recommended health action. The cues to action increase the individual's knowledge and awareness of the perceived benefits of utilizing proper breast health initiatives, thus, a larger benefits to barriers ratio is created which

propels the person to take action and perform such breast health behaviors as SBE, CBE, and mammography. For other women, the program will act as a modifying factor by increasing their knowledge of normal and abnormal breast changes. This knowledge may increase their perceived susceptibility of risk, increase their perceived seriousness and threat of getting breast cancer and lead to an increased likelihood to take the recommended preventative health action of routine SBE, CBE, and mammography.

Figure 2 provides a schematic representation of an adaptation of the Health Belief Model incorporating these components.

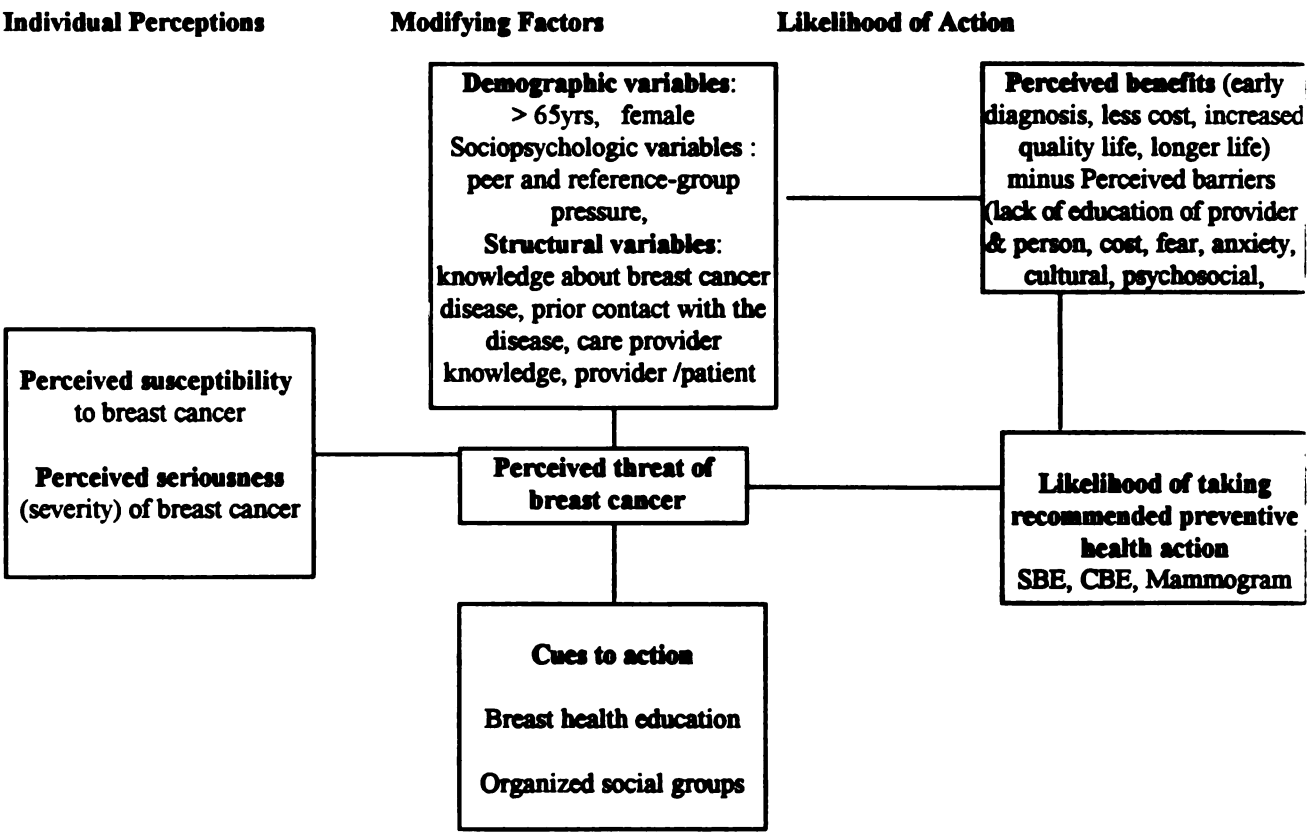

Figure 2-Adaptation of The Health Belief Model by Zeigler (1998)

Review of Literature

Risk factors for breast cancer cannot be readily impacted by change of habit, as the majority of risk factors are inherent. Educational programs focusing on patient education of risk factors, SBE, and appropriate screening services provides secondary prevention practices which lead to earlier diagnosis and intervention (Ellerhorst-Ryan, & Goeldner, 1992). However, despite evidence that regular breast cancer screening, including mammography, decreases breast cancer mortality, women, ages 50 and older, do not get effective screening. The lack of effective screening of this age group can be related to the lack of education on the part of the care provider as well as the individual (Urban et al., 1995). Older women may be diagnosed at a later stage of disease because they lack knowledge about the signs of breast cancer, and the normal pathological changes in their breasts. Many may hold different beliefs about provider relationships as these women grew up in an era of paternal medicine when one did not question the physician. Also older women exhibit fewer prevention and detection behaviors. They lack the knowledge regarding services available to decrease barriers to access, and possess inadequate knowledge regarding the need for cancer risk prevention and screening (Fritch et al., 1997).

A needs assessment for the development of a health promotion early cancer detection program by Fritch et al. (1997) identified that older women are less likely to participate in breast cancer screening. Cultural,

educational, social, and patient provider issues are identified as barriers as to why older women are less likely to obtain breast screening. Dislike for being probed, language barriers, procrastination, gender of patient's doctor, lack of knowledge of services, belief of "it won't happen to me", fatalistic attitudes, fears of death, isolation, institutionalization, modesty, embarrassment, "to old to be at risk," fear of the diagnosis "cancer" as well as effects of treatment, surgery, and cost are all barriers for not utilizing breast cancer screening services (Fritch et al., 1997; Gray, 1985; Vanchon et al., 1991). The elderly also attribute symptoms to "old age" or to an already existing condition (List, 1992).

The most significant factor contributing to the successful management of breast cancer is early detection; it enables diagnosis of the disease before development of nodal involvement (Ellerhorst-Ryan, & Goeldne, 1992). Many tumors are found by women during breast self exam (BSE) (Senie, Lessey, & Rosen, 1994). Research has shown that women whose tumors were discovered during purposeful BSE presented with significantly smaller tumors less node involvement, and smaller lesions in the involved nodes (Feldman, Carter, Nicastri, & Hosat, 1981). However, among women over 75 years of age, a greater number of stage three and four breast cancers are registered (Bellet, Alanso, & Oeda, 1995). Once a person develops positive nodes, survival is significantly affected. Approximately 58% of women with positive nodes achieve a five year survival

compared to a 98% five year survival for those with stage one disease (National Institute Health, 1988). Findings such as these reinforce the efficacy of BSE and the need for older women to become proficient in BSE and become aware of and utilize screening guidelines for breast cancer.

Fox, Situ, & Stein (1994) found physician - patient communication significantly influenced mammogram and CBE. In a sample of 972 surveyed women, age greater than 50 years, and the majority being greater than 65 years of age, they reported that the physician's style of communication about mammograms and CBE significantly influenced the women's self screening behaviors. Women who perceived their physicians as showing some enthusiasm for mammography were four and a half times more likely to have received a mammogram the year before than those women who perceived their physician as not being enthusiastic regarding mammography. This same study also showed a decrease in screening mammography and CBE in women greater than 75 years of age. Also women who have a regular physician tend to receive breast cancer screening (Fox et al., 1994).

Weinburger (1991) found that screening practices varied with women's age and risk factors even though physicians were aware of the American Cancer Society (ACS) guidelines. In a study by the Indiana State Medical Association of primary care physicians' self-reported practices of breast cancer screening in older women, 86% of the physicians were aware of ACS guidelines for mammography and 91% thought these guidelines were reasonable. However, only 43% knew

that the ACS recommended annual screening mammography for women seventy five years old and older. Regardless of their knowledge base, the physicians varied their screening practices of women with significant factors. Forty one percent of all of the women, regardless of age, with no risk factors were screened according to ACS guidelines. Physicians reported using annual clinical breast exams (CBE), or mammography less often in older women regardless of the patient's risk factors.

Though screening mammography is the primary means of reducing breast cancer mortality, the (CBE) and (SBE) are complimentary methods for detection of tumors not visualized by mammography (Senie, Lesser, Kinne, & Rosen, 1993). In a longitudinal study conducted at Memorial Sloan-Kettering Cancer Center of 729 patients diagnosed with breast cancer, 598 women self detected breast cancer by (SBE). One hundred and one breast cancers were detected by (CBE) and 30 breast cancers were detected by mammography. Of the patients whose breasts cancers were detected by SBE, 371 were age 50 or older with a mean age of 54.6 years. The mean age of those women whose breast cancer was detected by mammography was 59.1 years, and the mean age of women diagnosed by CBE was 57.2 years. Ten year survival rates for these women were: SBE: 336 without recurrence, 48 living with recurrent disease; CBE: 70 without recurrence, 4 with recurrence; mammography: 21 without recurrent disease, 4 with recurrent disease (Sine et al., 1997).

Predictors of Taking Action

Utilizing the (HBM) as a predictor to taking action, Murray, & McMillan (1993) in a random sample of 1,530 women greater than sixteen years of age, N=757, found a positive association between BSE, health motivation, and treatment knowledge of breast cancer and a negative association between cost and perceived benefits of treatment. Champion (1987) in a convience sample of 585 women, age twelve through seventy four, identified through stepwise multiple regression the combined and independent effects of susceptibility, seriousness, benefits, barriers, health motivation, and control on frequency of SBE. A Pearsons correlation coefficient, student t-test, and one way ANOVA were used to identify the influence of demographic variables, the method used to teach SBE, and knowledge. Benefits and health motivation were significantly correlated with SBE; however, the variance accounted for in the total regression by these two variables was insignificant. Barriers and knowledge accounted for 22% and 4% respectively. Champion identified that knowledge of BSE increased, the perceived benefits also increased but the perceived barriers decreased. Results also indicated than women taught SBE by personal contact engaged in SBE.

Gray (1990) in a study of women who belonged to a county extension group indicated that women who perceived BSE to be beneficial to decreasing the seriousness of the disease had few barriers to performing BSE, and were highly motivated to do so. As a group these women perceived BSE to

be beneficial in reducing seriousness of breast cancer ($F=48.63$ with significance ≤ 0.0001); this suggested a significant relationship between knowledge about breast cancer and BSE practice.

Social Groups Influence on Action

A group is a system that has identifiable parts with each part influencing all other parts. The group as a whole influences each individual within the group and each individual within the group influences the other individuals within the group (Clark, 1987, pg.3). Groups become important vehicles for learning and obtaining satisfaction. The quality of people's lives often depends on their ability to perform effectively in the groups in which they belong. Groups that are effective work and strive to promote behaviors that lead to effective functioning. Expression of thoughts and feelings is encouraged. Trust, support, safety, creativity, and constructive controversy is evident. Group support and cohesiveness enhance learning and acceptance of the individuals in the group (Clark, 1987). Social groups contribute to health by creating a environment that promotes health, decreases the likelihood of stressful life events, provides feedback on individual action and provides socially desirable consequences (Pender, 1996).

Gray (1990) suggested that group motivation may be a factor in health matters as certain attitudes may be valued by the group and therefore a member subscribes to that particular attitude. Fitch et al. (1997), in their needs assessment program identified a variety of ways of letting

older adults know about cancer prevention and early detection (Table 1). Fritch also recommended the use of established group organizations as a vector for cancer education, prevention, and detection programs.

Social support is a characteristic of networks that can influence health outcomes of others in their social network or group (Israel & Rounds, 1987). Individuals can influence health outcomes of others in their social network by offering various types of support such as information, emotional support, and/or encouragement (House, & Kahn, 1985). These strong social ties and supportive relationships found in group settings have proven to be beneficial in influencing health related behaviors and health outcomes of the people within the group (Tesson, 1997). Kang, Bloom, and Romeno, (1994) and Lloyd, Weiss, Raibolt, and Pulley, (1994) have been more specific in identifying that a woman's cancer screening behaviors are influenced by social networks. A woman's interpersonal network, such as an informal group, is an important source of information about breast cancer screening and acts as a informative source for services available (Marshall, Smith, & McKeon, 1995). Groups can therefore be a "cues to action to breast health, SBE, CBE, and mammography.

Nurses in a women's social network or group play an important role in promoting health and offering health information (Tessaro, 1997). By working within an established formal or informal group and utilizing the dynamics and cohesiveness of that group, a more pronounced

Table 1.

Ways of letting older adults know about cancer prevention and early detection

Organize sessions with speakers (in lay terms and in their own language).
Hold a meeting with a cancer specialist including a question and answer time.
Have videos available.
Use the local cancer society.
Have friends, survivors of cancer, tell their stories to peer groups.
Share personal stories of high-profile people.
Use support groups.
Have drop-in sessions/clinics.
Create pamphlets (for some) in own language.
Use community venues (senior centers, seniors' days, etc.).
Write articles in seniors' newsletter.
Use celebrity spokespersons (i.e., sports person, community leaders).
Set up displays in malls, shopping centers.
Work with other organizations to teach the isolated (i.e., Meals on Wheels, cable television.
Focus on seniors during cancer month.
Work with other organizations to distribute the cancer message (i.e., banks, hospitals, pharmacies, telephone or hydro companies in distributing bills).
Offer a social event along with the education.
Use peer teaching approach (older adult to older adult).
Promote positive messages and hope.

Fritch, et. al. (1997) Health promotion and early detection of cancer in older adults: Needs assessment for program development.

impact on healthy behaviors and screening practices can be realized.

Education's influence on action

Generally, elderly women have inadequate knowledge about breast cancer, detection, and treatment. Establishing an education program to improve understanding about cancer reduces fears, and promotes action to help elderly women assume self-care activities (Sites, 1995). A multistrategy health education program implemented to increase mammography use among women ages sixty and older, in retirement communities of Philadelphia, identified that mammography rates increased for this age group after the women attended an educational program that identified knowledge deficits related to screening practices. At the initiation of this program 94% of the women involved, N=412, did not know that risk of breast cancer increased with age. Women who attended the educational presentation had a 75% to 86% increase in obtaining follow up mammography. Those women who did not attend the educational program showed a 22% to 41% increase in obtaining a follow up mammography (Rimer et al., 1992). Walker, Lucal, & Crespo (1994) found similar results regarding the implementation of a breast education program as part of the West Virginia Rural Cancer Prevention Project. Ansell, Lacey, Whitman, Chen, and Phillips (1994), through a nurse-delivered intervention project to reduce breast cancer, identified lack of knowledge about breast cancer as a barrier preventing appropriate screening measures to take place. A survey was completed by 450

participants prior to and after attending a 20 minute class on breast cancer screening. Results identified a significant increase in post presentation scores; i.e. 6.8 pre correct to 10.5 post correct out of 13 possible correct answers. Follow up rates for mammography was approximately 90%.

Program Development

This educational model is comprised of five phases: a) back ground information, b) selection and arrangement of program materials, (see Appendix A), c) organization of presenters, d) implementation of program, e) revisions of the program.

The target population of this project is women sixty five years of age and older, that reside in Northwest lower Michigan, however, all women can benefit from this program and will not be discriminated against. This program will be presented by registered nurses who are currently employed at Munson Medical Center and work in oncology. The program length will be appropriate to the time constraints of organized women's groups that are interested in supplementing their regularly scheduled meetings. Program length is anticipated to be 45minutes. The educational model utilizes adult learning principles and teaching strategies (Patient Education Department, Munson Medical Center, 1998). These principles identify that adults learn best when they are actively involved in the learning process: Adults learn best when they feel their knowledge and skills are valued and recognized; adults learn in

various styles, and learning is more effective when reinforced by positive and satisfying experiences and when it takes place in a non-threatening, comfortable environment. Teaching strategies for the model include visual, audio, and tactile strategies.

The program is designed to fit into the time constraints of an already organized social group that wants to supplement their regularly scheduled meeting. Program length is approximately forty five minutes.

The objectives of the program are to assist individual women in recognizing normal and abnormal breast changes, to recognize risk factors of breast cancer, to recognize barriers that prohibit them from carrying out breast cancer screening practices, and to supply information on obtaining mammography.

Background

In the spring of 1997 a member of the Women's Golf Classic Committee approached an oncology nurse from Munson Medical Center to develop a breast education program for older women. The request was forwarded to the director of the oncology service line, who approved the project. The project was funded through a grant from the Women's golf classic. The money provided for the purchase of breast models, pamphlets, slide development, luncheon for potential presenters, and miscellaneous items such as folders, carrying cases, pencils, and wipes.

Selection and arrangement of materials

Information and material selection was based on readability, availability, cost, correctness of information and the integrity of the institution that published the information. The program has been designed to fit into the time constraints of an already organized social group that wants to supplement their regularly scheduled meeting. Program length is planned to be approximately forty-five minutes. A variety of educational approaches, primarily from currently available audio/visual and printed sources were selected. The following paragraphs describe those selected. The specific organization of the presentation and use of the resources is presented in appendixes A and B.

The slide presentation is developed from the Trainer's manual of the Native American Cancer Screening Training Grant project. The information within the manual was formatted from the American Medical Women's Association Breast and Cervical Cancer Education Project for Primary Care Physicians developed under a cooperative agreement the Centers for Disease Control and Prevention (CDC).

The video, Instruction for Breast Self-Examination (ACS, 1996) was chosen because it stresses the importance on monthly BSE, it is easy to follow and features women in a variety of ages, and the length, seven minutes, is appropriate for the time constraints of this educational model. It targets both audio and visual learners.

The literature on normal breast changes developed by the Native American Cancer Screening Training Grant (1995)

was incorporated into the breast health model. Silicon models of older breasts were purchased to provide hands on experience to teach proper SBE technique and palpate nodules.

The Primary Care and Cancer Breast Self-Examination Guide (Bristol-Myers Squibb, 1995) was selected since it included a take home guide on BSE. It also includes information on breast anatomy and a step by step guide to performing SBE using large print and a vocabulary that is easy to read and understand. The colored photos provide vivid techniques.

Understanding Breast Changes - A Health Guide for All Women (National Cancer Institute, 1997), was also selected, it provides another choice of a take home pamphlet on breast physiology, mammography, how to follow up if a breast lump is found, and a glossary that provides definitions of words that may be difficult to understand.

A resource list including a written copy of available resources in the five county target area regarding a variety of women's health issues was also selected; it has a handout on how to access services.

Commonly Asked Questions Regarding Breast Cancer (Weber, 1997) was selected as a resource for the presenter; it includes potential questions that may be asked and provides an appropriate and concise answer. Application of this puglication by health care providers should promote uniformity of answers during the presentation.

The pre-test and post-test questions developed were based upon ACS breast cancer screening guidelines and the objectives for the educational model set forth by this project's author. The pre-test is a method to understand the level of knowledge of the program participants prior to the program. The post-test is utilized to see if the objectives of the program were met, and understood by the participants.

A program evaluation was developed as a tool to be used by the participants to supply subjective feedback information regarding the structure, design, and information of the program and data regarding the presenter's knowledge and presentation of the program. This information will be utilized to improve the quality of the program and insure that the information presented is targeted to the audiences needs.

Organization of presenters

It is anticipated that presenters for implementation of the model will be volunteers solicited from registered nurses who currently work in the oncology service line at Munson Medical Center. The presenters can utilize their volunteering as points towards obtaining a higher position on the clinical ladder at Munson. This provides a source of incentive which will hopefully increase the number of oncology nurses willing to participate. A sign up sheet to gather names of interested nurses will be posted on the oncology floor two weeks prior to the preparation of these oncology nurses. The newly developed educational model,

Breast Health for Older Women, will serve as the method of education for these nurses. The participating nurses will also be asked to provide constructive criticism of the project as a means for evaluating the program. The presenters are responsible for getting technical equipment and program material to and from the speaking location.

Program evaluation

The program evaluation consists of pre-test, post-test questions relating to the objectives presented. An evaluation tool of general questions regarding the length of the program, delivery of the program, program content, and the ability of the program to motivate women will also utilized (Appendix B).

Implications for Advanced Nursing Practice and Primary Care

The role of Educator as an advanced practice nurse (APN) defines the essence of nursing and delineates the APN role from other health care providers. Nurses impact health care through the knowledge they extend to others whether it be in the role of clinician, assessor, counselor, advocate or researcher. Promoting health through education empowers individuals to be in control of their health and well being and to make well informed health care decisions.

The Breast Health Education Model (BHEM) provides the APN with an educational tool to instruct and empower women to take an active role in their health care. Implementation of the BHEM should promote active participation in women in identifying and understanding the benefits of maintaining proper breast health. This model will also assist these

women in identifying their own individual barriers that may prohibit them from obtaining appropriate screening and help them overcome their individual barriers through self understanding and empowerment. Through the utilization of this model the APN can promote lifestyle changes that will impact the women's values regarding health maintenance and health promotion. As a resource clinician, the APN has the capability to promote breast health through community education programs, in both the public and private sector. The APN can be an expert resource person for the general community and for individuals who desire information about breast health.

As a clinician, the APN will be able to utilize this breast education model program, or segments of this model, as an assessment tool with her female population. The model can identify physical, emotional, cultural and psychosocial issues that prevent her patients from implementing standard breast health procedures. After a thorough assessment, the APN can utilize the BHEM to establish and implement a health plan which utilizes appropriate resources to obtain breast cancer screening, follow up, and an evaluation of both the components health plan.

As a research tool the APN can use the BHEM to identify barriers significant to this female population. If a significant barrier is identified the APN's success or lack of success can be evaluated. The relationships between cues to action and outcomes also lends itself to research. Identifying whether breast cancer screening, mammography

and/or CBE has increased among the target population will help identify if this program is an effective tool in promoting breast cancer screening among these women sixty five years old or older. If the educational model is successful in promoting breast cancer screening among women these women in the designated five county area could be successful if implemented in another geographical area. Research of this type focuses on determinants that will impact patient education, health maintenance and health promotion. The role of the APN as educator, clinician, counselor are also important determinants of breast health.

In the role of counselor the APN needs to be able to identify factors that influence patient health behaviors. The APN counsels the patient to make an informed decision regarding her breast health after identifying and working through potential barriers that would prohibit the woman from partaking in a breast cancer screening program. The BHEM can prepare the APN to be proficient in this area by identifying cultural, psycho-social, financial, emotional, factors that would inhibit a women from seeking out and obtaining appropriate breast cancer screening.

Education of nurses and nursing students about breast cancer can be accomplished through the use of this educational program. It can prepare these nurses to be proficient in identifying risk factors for breast cancer, become familiar with performing CBE, and discuss breast health issues with their patients. The use of this program as an educational tool to teach other advanced practice

nurses can increase their ability as clinicians, assessors, and educators in the area of breast health and breast cancer screening.

Summary

Development of educational programs aimed at increasing elderly women's knowledge regarding breast health need to focus on identifying barriers that inhibit the use of BSE, CBE, and mammography. Once identified, the nurse needs to identify and implement strategies that will decrease the barriers and increase compliance in the use of breast cancer screening methods. Financial and accessibility barriers may be easy to identify and easily remedied through utilization of free federal mammography screening programs, local charitable organizations, and local American Cancer Society agencies. Personal and cultural barriers may be more difficult to identify and alter. The APN needs to be aware and sensitive of such personal concerns and attempt to educate and motivate these women to explore and clarify their value system.

By achieving reduction in barriers that preclude elderly women from implementing and obtaining SBE, CBE, and mammography there is a potential to increase earlier breast cancer diagnosis, increase survival time, and decrease the number of breast cancer deaths in elderly women.

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APPENDICES

APPENDIX A

A Breast Health Education Model For Older Women

BY

MADELYN J. ZEIGLER 1998

This model describes a breast health education program targeting women 65 years of age and older. It's objectives include the following:

1. To provide breast health education for women greater 65 years, but not exclude younger women.
2. To increase self-awareness of breast cancer risks in older women.
3. To increase awareness of screening guidelines for women greater than 65 years in order in encourage self-advocacy.
4. To increase awareness of the importance of BSE.
5. To demonstrate correct technique for BSE utilizing breast models.
6. To increase awareness of community resources relating to breast health.

Breast Health for the Elderly Women

Program Outline

I. Set Up

Allow yourself enough time to set up the slide projector, monitor and VCR. The time needed will be individual depending on ones audio - visual setup capabilities. Approximately 15-20 minutes should be allowed. This is not a part of the allotted presentation time (i.e. be prepared to start on time!).

II. Introduction (3 minutes)

Hello, my name is, (give your name) and I am a cancer nurse. I work at (give place of work, how long you have worked as a nurse and how long as a cancer nurse). The program I will presenting to you today is about breast health. Breast health is an important part of

every women's life. Knowing your breasts and knowing what is normal for you is the first step in breast health. Knowing how and when to perform self-breast examination (SBE) should be as routine as putting on a brassiere. Doing a self-breast examination takes less than 15 minutes a month and it should become every women's habit.

The purpose of presentation is to make everyone in this room aware of reasons why some women do not perform SBE, seek a clinical breast exam (CBE), or have a mammogram and make available to you avenues to resources to obtain screening services. This presentation will also offer hands on experience, using silicon breast model, to palpate breast nodules, as well as review how to perform a SBE. If you identify a reason for not obtaining or doing a SBE, CBE, or mammogram and you want to discuss further please feel free to talk with me after this presentation. Also feel free to ask questions throughout this presentation. As you walked in you were given a brief list of questions. Please answer the questions as they are important in helping identify if the program meets your needs. All information is confidential as no names are required.

III. **Pre-Test (3 minutes) see Appendix B**

Enlarge and make copies for the presentation for easier reading.

Have women fill out upon entering the room.

Slide Program 1-14 (5 minutes) - See Appendix B

Normal breast: Changes of time in the breast. (3 minutes)

The breast reacts to hormones during a woman's lifetime affecting day to day change, month to month change, and long term change.

Puberty: Estrogne production begins and affects the growth of the glandular tissue.
Fat in the breasts increases and fibrous tissue becomes more elastic. Complete development of the breasst occurs after ovulation begins with the effect of progesterone (Refer to page on the breast gland).

Menstrual Cycle: Changes in size and firmness of the breasts occur due to hormone balance. Breasts become large before menstruation due to fluid retention and growth of duct glands. All areas of the breast are not affected to the same degree; thus certain areas are more tender than others.

Pregnancy: During pregnancy breast changes become more extreme due to swelling and growth of mammary glands and ducts.

Menopause: Breasts change during menopause because of the loss of mammary glands. The breast is replaced largely with fat.

Practice with models. (15 minutes)
Audience will have the opportunity to demonstrate proper SBE technique and/or utilize models to palpate nodules located in the model.

VII. **Questions and answers (5 minutes)**
Refer to "Commonly Asked Questions Regarding Breast Cancer."
These are meant to be a resource guide for the presenters.

VIII. **Handouts (2 minutes)**
Refer to "Women's Health Resources."

Post Test (3 minutes) See Appendix B; Questionnaire B
Enlarge and make copies for the presentation for easier reading.
Have women fill out at the end of the program.

X. **Evaluation (3 minutes) See Appendix B; Program Evaluation**
Enlarge and make copies for the presentation for easier reading.
Have women fill out at the end of the program.

APPENDIX B

I. Slide 1: BREAST HEALTH FOR THE OLDER WOMAN

II. Slide 2: Risk Factors for Breast Cancer
   A. Two Major Risk Factors
      - Gender
      - Age
   B. Other Risk Factors
      - Family History of Breast Cancer
      - Parity/Nulliparity
      - First Delivery after age 25-30
      - Atypical Hyperplasia on Breast Biopsy

   Source: National Cancer Society

III. Slide 3: Factors that Increase Risk
   A. Simply being a woman and getting older puts you at risk for developing breast cancer. The older you are, the greater your chance of getting breast cancer.
   B. Breast Cancer Incidence Rate, per 100,000:
      - Women ages 40 to 49 = 161
      - Women ages 50 and over = 347

   Source: Center for Disease Control

IV. Slide 4: Risk of Developing Breast Cancer
   A. By age 25: one in 19,608
   B. By age 30: one in 2525
   C. By age 35: one in 622
   D. By age 40: one in 217
   E. By age 45: one in 93
   F. By age 50: one in 50
   G. By age 55: one in 33

   Source: National Cancer Society

V. Slide 5: The woman most likely to get breast cancer is:
   A. Elderly - in her 80's
      Unfortunately, this population of women is the least likely to be screened for breast cancer.

   Source: Center for Disease Control

VI. Slide 6: One in Nine
   A. One in nine women living to age 85 will be diagnosed with breast cancer during her lifetime.
   B. If a woman lives beyond 85 years of age, her risk increases to one in eight.

   Source: CDC

VII. Slide 7: Every Woman is at Risk
   This is a powerful fact and often convinces patients of the importance of screening.

   Source: CDC

VIII. Slide 8: Protect your Breast Health

A. Get a breast exam from your health care provider at the time of your regular physical exam.

B. Get a mammogram as often as your health care provider recommends. Ask when to schedule your next mammogram.

C. Check your breasts each month. Your health care provider can show you how.

These three exams can help you and your health care provider learn what is normal for your breasts and what may be signs of problems.

Source: CDC

IX. Slide 9: Detection - Why early detection?

A. Survival rate of breast cancer diagnosed and treated at Stage 0 (in situ cancer) approaches 100%.

B. Stage 1 disease has a 5 year survival a rate of 85-95% (dependent on the size of the primary tumor).

Source: CDC

X. Slide 10: Clinical Breast Exam (CBE)

(a breast exam by your health care provider)

A. Detects 15% of cancers not found by mammography.

B. Misses 40% of cancers that can be diagnosed by mammograms.

C. 45% of breast cancers detected are found using both modalities

- CBE is generally the most available method of breast cancer screening.
- Relatively few women are proficient and/or comfortable with BSE, and mammography is restricted by age, economics and availability.

Source: CDC

XI. Slide 11: What is a Mammogram?

A. Safe, low-dose X-ray picture of the breast

B. Two kinds:

- Screening
- Diagnostic

Source: CDC

XII. Slide 12: Mammogram Results

A. Learning the results of your mammogram is very important.

B. Chances are your mammogram will be normal

C. Do not assume it is normal just because you have not received the results.
D. If you have not received your screening results within 10 days, ask your health care provider or call the mammography facility.

Source : CDC

XIII. Slide 13: **Remember...You are in Charge of your Breast Health**

A. Schedule screening mammograms as often as your health care provider recommends (yearly age 50 and older).
B. Always find out the results of your mammogram.
C. Follow your health care provider's recommendations for follow up.
D. Schedule diagnostic mammography, if needed, as soon as possible.

Source: CDC

XIV. Slide 14. Remember..

A. Have a clinical breast exam as part of your regular physical exam.
B. Do monthly Self Breast Exams.
C. Call your health care provider if you notice:
   - a lump or thickening of the breast
   - a discharge from the nipple
   - skin changes in the breast

Source: CDC

XV. Slide 15. Remember.. You are in charge of your Breast Health

Source: CDC

Questionnaire A

AGE_____

Marital Status: single_____ married_____ divorced_____ widow_____

Education: (fill in highest grade completed):

1) Elem. (Grade)___ 2) Jr. High (grade)___ 3) High School (Grade)___

4) College (Grade)___ 5) Graduate School___ 6) Post Graduate ___

Income Level (check one): 0-19,999___ 20,000-39,000___ 40,000-59,999___
60,000-79,999___ 80,000-99,999___ greater than 100,000___

Breast Cancer History: Is there a history of BREAST CANCER in any of the following members of your family or yourself (please circle)
Self Mother Grandmother Sister Daughter Aunt

Has a doctor ever told you that you had a lump in your breast, or breasts?
Appendix C If Yes, was the tumor cancerous? Yes_____ No____

Do you examine your breasts regularly for lumps or other changes?
Yes___ No____ Don't Know_____

How often do you examine your breasts for lumps? _____

---

1. How frequently should a women over 50 have a mammogram?
   Yearly every 5 years every 3 years

2. How frequently should a woman do self breast exam?
   Every 6 months monthly not necessary

3. Is Breast Self Exam necessary when you have annual mammogram?
   Yes No

4. Can you list one risk factor for developing breast cancer?
   Age weight smoker

5. Can you give one reason why you or someone may not do a self-breast exam?
   Don't know how it's not important too busy

Questionnaire B

1. How frequently should a woman over 50 have a mammogram?
   6 years yearly 2 years

2. Is Breast self exam necessary when you have an annual mammogram?
   Yes No

3. How often should a woman do Breast Self Exam?
   Same time each month never every other month

4. Give a reason why you would not have a mammogram or clinical breast exam.

5. Find on provided resource list who to contact about obtaining a mammogram.

6. As a result of this session can you perform a self-breast exam?
   Yes No

Evaluation

1. Based on this program I plan to do 1) SBE, 2) have regular CBE, 3) have a mammogram yearly (circle all that apply)

2. The presentation lasted the right amount of time? Yes No

3. The program was well organized? Yes No

4. The information was important to me? Yes No

5. The information was what I expected? Yes No

6. I would recommend this program to a friend. Yes No

7. The speaker was clear and understandable? Yes No

8. The speaker was knowledgeable about the subject? Yes No

9. The speaker encouraged participation? Yes No

10. Comments_____

_____

Women's Health Resources

Women's Health Network

The women's health Network is an informational system designed to educate and inform community members about women's health concerns.

A lending library provides books, pamphlets, videos, and a computer database for women seeking information on health care topics. The library is located on the ground floor of Munson Medical Center's Pavilion.

Library Hours
Monday - Wednesday - Friday 8am - 4pm
Tuesday - Thursday 11am - 8pm

A registered nurse is available to assist in the research process as well as answer questions about women's health issues.

Focus on Women is a community lecture series presenting topics related to women's health and well-being. For information regarding upcoming lectures and more information call 616 - 935-6678 or 1-800-376-11135.

Support Groups:

Breast Cancer Support Group: Peer led for women who have received a diagnosis of breast cancer.

General Support Group: For individual and their families who have received a cancer diagnosis, facilitated by an Oncology Clinical Nurse Specialist

Individual Support Services: One -on-one services with an Oncology Clinical Nurse Specialist or Medical Social Worker.

For more information about cancer support services: (616) 936-6578.

Internet: http://www.nabco.org (breast cancer resource list)

More Information

If you have limited income, no health insurance, or if your health insurance doesn't pay for mammograms, call 1-800-922- MAMM to see if there is a federally-funded program near you that offers free breast exams and mammograms.

The American Cancer Society, Michigan Division, 1-800-ACS-2345.

National Cancer Institute Cancer Information Service, 1-800-422-6237.

Appendix C

COMMONLY ASKED QUESTIONS REGARDING BREAST CANCER

Q: Should I be concerned about hormone replacement therapy in relationship to breast cancer.
A: This decision is highly individualized between a patient and her doctor. There are also many books published on the subject.

Q. What is the Medicare reimbursement for mammograms?
A: If a patient has met their deductible for the year, the 20% portion that she should owe for a mammogram will be approximately $21.74. Medicare will reimburse for one mammogram to be performed every two years. The total cost for a mammogram is $108.70.

Q: Do I need a mammogram if I don't have any symptoms?
A: Mammography may detect breast cancer up to two years before you or your doctor can feel a lump.

Q: If there is no history of breast cancer in my family, do I need to worry about getting it?
A: 80% of women who develop breast cancer have no family history of the disease.

Q: I have had one normal mammogram, do I need another?
A: Once is not enough!. A mammogram can detect breast cancer when it is in its earliest, most treatable stages, but only if done regularly.

Q: Are mammograms painful?
A: A mammogram is simply an x-ray of your breast. Although the procedure may cause discomfort, it is very quick.

Q: Do I still need a mammogram even if my doctor doesn't say I do?
A: Don't wait! The American Cancer Society recommends that once you turn 40, you should have a mammogram every 1 to 2 years. Starting at age 50 you should have a mammogram every year. Examine your breasts monthly and make sure your doctor gives you a breast examination once a year.

Q: If a mammogram does find something, isn't it too late?
A: Over 90% of women with breast cancer survive if the cancer is found and treated early, before it has spread beyond the breast.

Q: Can getting a mammogram expose me to unsafe levels of radiation?
A: The radiation exposure from mammography equipment is very low, similar to being in the sun for two hours. It is far more dangerous to allow breast cancer to go undetected and untreated than to be exposed to very low doses of radiation.

Q: Who is at risk to develop breast cancer?
A: Every woman is at risk for breast cancer. Breast cancer is the most common cancer in America and one in nine women will develop breast cancer in her lifetime. The two most significant risk factors for breast cancer are being female and getting older.

Q: What does the American Cancer Society recommend for early detection of breast cancer?

A: Have regular mammograms: screening mammographies should begin by age 40. Have one every year or two to age 49, and every year after age 50. See your doctor for regular breast exams: at least every three years between the ages of 20 and 40 and every year after 40. Practice monthly breast self-exam: ask your doctor, nurse, or mammography technician to teach you the proper method. The local office of the American Cancer Society can give you a how-to-do diagram as well.

Q: How can I tell if I should be concerned about a lump in my breast?

A: All lumps should be checked by a doctor. Most are not serious, but only the doctor can tell you this. *Sometimes a biopsy is needed to be certain.*

Q: Will I lose my breast?

A: Since 1990, the National Cancer Institute (NCI) has recommended that women with early-stage breast cancer be treated with breast-conserving treatment instead of mastectomy (surgery to remove the breast). Breast-conserving treatment is defined as lumpectomy (removal of the breast lump) or partial mastectomy followed by radiation therapy. Lumpectomy removes only the small piece of the breast that contains the cancer, leaving a small scar and most of the breast intact.

Q: Can breast cancer be cured?

A: 95% of women diagnosed with early-stage breast cancer are alive at five years, the usual milestone doctors use to tell if a treatment has worked. For women with advanced-stage cancer, a cure is possible in a significant number, and the cancer can be controlled in most cases. *However,* there is always the possibility of recurrence, even 20 years later. For this reason, all survivors should see their doctors for regular check ups and mammograms.

Q: Is the incidence of breast cancer increasing?

A: From 1982 to 1987, the incidence rates for breast cancer rose by about 4% per year, but they have leveled off since. Most of the earlier increase is believed to be due to the wider use of screening mammography, which allows cancer to be detected at earlier stages.

Q: What causes breast cancer?

A: No one knows for sure. And there probably isn't just one single cause. *Changes in breast genes may be the most important.* The hormone estrogen, which is produced normally by women's ovaries, is thought to play a large role by making the breast cancer grow faster.

Q: What about the breast cancer gene?

A: A test for the gene *BRCA1* is available commercially for women at high risk and is offered to women through their doctors. *But its significance is controversial.* The gene is thought to play a role in breast cancer primarily in women under age 35, about 5% of the total with cancer, who are affected by hereditary or familial breast cancers.

Q: Can breast cancer be prevented?
A: There is no known way to prevent breast cancer, and 70% of women who get the disease have no known "risk factors." Early detection and prompt treatment are the best way to treat breast cancer successful

Q: Is a family history of breast cancer important?
A: *Yes*. A women whose mother, sister, daughter, or grandmother had breast cancer has an increased risk of developing the disease.

Q: How often should I have a mammogram?
A: The American Cancer Society recommends that after age 50 all women get a mammogram and a clinical breast exam done by a doctor *yearly*. For women aged 40 to 45 a mammogram and clinical breast exam should be done at least once every year or two. Women under age 30 should talk with their doctor about how often a mammogram should be performed.

Q: Will a blood transfusion be needed during breast surgery?
A: Generally not for the less extensive surgeries used today to treat breast cancer. However, in breast reconstruction, the "flap" reconstruction techniques are complex and could require the use of a blood transfusion during surgery, so women might plan to donate blood beforehand for this purpose (Weber, 1977).