ON BREAST CANCER DETECTION, DIRECTORS OF NURSING AND FEMALE RESIDENTS: A STUDY IN RURAL LONG-TERM CARE

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**Key Words:** Breast Cancer, Directors of Nursing, Rural, Women, Long-Term Care

**ABSTRACT**

Breast cancer is a leading cause of mortality in women throughout the world. Rural women have a higher risk of dying from breast cancer than do their urban counterparts. Breast cancer incidence rises sharply with age, and research on breast cancer screening for the old-old women in long-term care facilities is scarce. The purpose of this study was to investigate the screening services available for breast cancer detection for the elderly women in rural, skilled long-term care facilities in a Midwestern state.

Participants in the study were Directors of Nursing for rural long-term care facilities, of which the response rate was 68.4%. Results revealed that elderly women in the rural long-term care facilities do not receive breast cancer screening services within the guidelines of the American Cancer Society and the National Cancer Institute. Also, the self-reports by female Directors of Nursing indicate that even these professionals do not practice or utilize breast cancer screening services within consensus guidelines. Data support the need for a continued focus on breast health programs for rural elderly women in long-term care, and for health-seeking behaviors of nursing professionals.

**INTRODUCTION**

“Millie” was a beloved wife, mother, grandmother, and friend in her small rural community. Late in life, Millie manifested dementia and eventually entered long-term care. It was her second year in long-term care when her chest wall became notably disfigured. Breast cancer was diagnosed by the obvious—a lump clearly visible and thought to be well encapsulated. Staging and treatment were not recommended by her health care provider; “she’ll die from something” was the prevailing and accepted advice. Two years after a gruesome and painful saga of breast cancer with bony invasion, Millie’s precious life finally ended. Two years! Two horrific years ended a life well lived.

As has been long understood, the United States is undergoing a dramatic demographic shift with the aging of the population, the “graying of America.” Consequently, a greater emphasis is being placed on the health care needs of the elderly than ever before in history. Although many health care issues affect older Americans, one that has received relatively less attention in comparison with its prevalence has been breast cancer in older women.
In the United States, breast cancer is among the most common cancers in women, second only to lung cancer as a cause of cancer death (American Cancer Society, 2006). Although the breast cancer death rate has declined since the early 1990s, the National Cancer Institute (2006) reports a steady increase in breast cancer diagnosis rates. Every two minutes, a woman in the United States is diagnosed with breast cancer. It is estimated that in 2006, approximately 212,920 new cases of invasive breast cancer will be diagnosed among women in the United States, along with 58,000 new cases of noninvasive breast cancer, and 40,000 women are expected to die from this disease (American Cancer Society, 2006).

Breast cancer incidence increases with age, with 80% of all cases occurring in women over age 50 years (National Cancer Institute, 2003). Because the incidence of most cancers is highest at older ages, the proportion of persons affected by cancer who are elderly at the time of diagnosis is growing, and the incidence of breast cancer now peaks at the ages of 75 to 79 years (Edwards et al., 2002; Sweeney, Blair, Anderson, Lazovich, & Folsom, 2004). Data describing screening practices for breast cancer in the oldest age groups are relatively limited, and the debate of the efficaciousness of breast cancer screening continues.

Research Questions

Improvement of health care in the United States is a national priority, and nursing intervention research can contribute substantially to addressing this priority. Detecting and diagnosing breast cancer early, when it is most curable, holds the greatest promise for saving the lives of women with the disease (Institute of Medicine, 2006). Breast cancer screening for all women, including the very old, could result in substantial improvement in the quality of life until one’s life ends. Given the high incidence of mortality of breast cancer among older women, the lack of published data reflecting the promotion of breast cancer detection for elderly women in long-term care (LTC), and the limited data on cancer-related issues within rural populations, this research serves as a basis for future interventions, and focused on the following questions:

1. What is the reported frequency of clinical breast examination provided for elderly women in one state’s rural, skilled LTC facilities?
2. What is the reported frequency of mammography provided for women in a one state’s rural, skilled LTC facilities?
3. What factors influence the screening services available for elderly women in rural, skilled LTC facilities?

Study Design

The Health Belief Model (HBM) is a useful framework to predict a woman’s intention to obtain breast cancer screening mammograms and clinical breast examinations. It suggests that a woman is more likely to be screened for breast cancer if she feels susceptible to breast cancer and if she perceives that the behaviors (mammograms or examinations) are beneficial and that the existing barriers (to screening) are manageable (Stein, Fox, Murata, & Morisky, 1992). Previous studies have
shown that perceived barriers and benefits have the highest correlation to behavior change (Champion, 1999).

In this study, the three constructs of the HBM model were considered: perceived barriers, benefits, and susceptibility (Champion, 1999). The model was incorporated as a guide with indirect application to the study. Frail elderly women in LTC are largely unable to self-report and to self-advocate; they are not able to act on individual intention. However, Directors of Nursing (DONs) in LTC were assumed to be the individuals who have major influence on the medical services and activities related to resident care. The postulate was that the DONs’ perceptions of the three HBM constructs (barriers, benefits, susceptibility) could transpose to advocacy action, if she/he believed that benefits and susceptibility outweighed any barriers for screening activities.

REVIEW OF THE LITERATURE

A Pathophysiology Brief

Breast cancer is a major public health concern throughout the world. Breast cancer is not one disease, but many, depending on the tissue of the breast involved, it’s estrogen dependency, and the age at onset. Malignant breast tumors are usually solitary, irregularly shaped, firm, nontender, nonmobile masses with a tendency to adhere to the pectoral muscles and to the skin. This causes a retraction or dimpling of the skin. Elderly women with early breast cancer have survival rates superior to the general population, because tumor growth in these patients is slower than in younger patients. Diab, Elledge, and Clark (2000) reported an extensive study in which advancing age was associated with a more favorable tumor biology. In that study, the eight-year survival of elderly lymph node negative breast cancer patients was similar to the rate of breast cancer survival in all women, irrespective of any concommitant disease status which commonly presents in the frail elder population.

Breast cancer most frequently metastasizes to bone (in more than 50% of patients), specifically the spine, ribs, and proximal long bones. Patients with bony metastasis will endure or manifest localized, deep-seated, unrelenting pain. Pathological fractures are common, and compression fractures with associated neurological impairment frequently present (Phipps, Monahan, Sands, Marek, & Neighbors, 2003; Yarbro, Groenwald, Frogge, & Goodman, 2000).

Highly educational web-based education modules on breast cancer are available online. One such product, the Breast and Cervical Cancer Detection program, was developed with support from the Wisconsin Department of Health and Family Services, Well Woman Program, and the Centers for Disease Control, National Breast and Cervical Cancer Early Detection Program (Settersten, Dopp, & Tjoe, 2006). At this site, readers may easily review knowledge about breast cancer in preparation for the study of breast cancer screening modalities, as well as for the accepted protocol for the follow-up of abnormal screening results. See http://www.son.wisc.edu/ce/programs/asynch/bccd/index.html.
Breast Cancer and Aging

Age alone puts women at greatest risk for the development of breast cancer. The incidence of breast cancer peaks at the ages of 75 to 79 years (Siegelmann et al., 2006). For a woman who lives to be 85 years old, chances of developing breast cancer are 1 in 7 in her lifetime. Over 50% of the breast cancer deaths are found in elderly women, those past the age of 65 (American Cancer Society, 2004).

For decades, studies have challenged that treatment for breast cancer differs considerably by patient age and that older women are more likely to receive substandard therapy. Literature reviews consistently report elderly women as less likely to receive detection screening, standard-of-care surgery, radiation therapy, and chemotherapy (Diab et al., 2000; Greenfield, Blanco, Elashoff, & Ganz, 1987; Samet, Hunt, Key, Humble, & Goodwin, 1987; Silliman, Troyan, Guadagnoli, Kaplan, & Greenfield, 1997).

Researchers at the University of Texas M. D. Anderson Cancer Center recently completed an investigation of care patterns for older breast cancer patients. This report indicates that issues for decreased guideline concordance for breast cancer are probably multifactorial and may include a higher rate of patient comorbidities, poorer performance status, less social support, difficulty with transportation, patient or family preference, concerns about quality of life, lower life expectancy, and age bias (Giordano, Duan, Kuo, Hortobagyi, & Goodwin, 2006).

Breast Cancer and Long-Term Care Residents

There is a paucity of literature related to prevention services for the elderly in LTC. Some time ago, Kenney and Keenan (1991) posed challenges when they described women residents in LTC facilities as being at high risk for the development of breast cancer. This study suggested an age-related bias among health-care providers concerning the breast cancer detection practices for LTC residents.

Another study, entitled Keeping a Watchful Eye, described the extent to which women in LTC facilities received preventive screening services (McCabe, Bergman-Evans, & Grasser, 1998). The authors reported that while general physical examinations of the women residents met the 40% recommendation of Healthy People 2000 (U.S. Department of Health and Human Services, 1990), the one exception was that clinical breast examination and Pap smears were not a part of the annual physicals. The authors reported that nurses in LTC have an opportunity to enhance residents' quality of life by ensuring consistent use of preventive screening services (McCabe, Bergman-Evans, & Grasser, 1998).

Breast Cancer and Rural Women

Only limited data are available to assess cancer incidence, cancer prevention behaviors, and cancer-related mortality within rural populations. There is no nationwide cancer registry in the US; however, data are available through the National Program of Cancer Registries (2002) and the National Cancer Institute’s (NCI) Surveillance, Epidemiology, and End Results (SEER) registry program (Hance, Anderson, Devesa, Young, & Levine, 2005; NCI, 2003). Further, cancer registry data are not presented by
metropolitan areas versus nonmetropolitan areas, and when presented by urban/rural residence, data are not presented by individual cancer sites (Amey, Miller, & Albrecht, 1997).

While reports are relatively sparse, we have known that rural areas report a higher prevalence of chronic diseases, including heart disease and cancer (Monroe, Ricketts, & Savitz, 1992; Ricketts, 1999; Skinner, Fraser-Maginn, & Mueller, 2006). This finding has been attributed, in part, to a population that is older, poorer, and less educated. Steven et al. (2002) examined both breast and cervical carcinoma screening practices of women living in rural and nonrural areas of the United States from 1998 through 1999, using data from the Behavioral Risk Factor Surveillance System. This study underscores the need for continued efforts to provide breast screening to women living in rural areas of the United States. Moreover, rural residents have been shown to be diagnosed at a later stage of a cancer disease compared to urban residents, higher proportions of rural cancer cases were unstaged at diagnosis, and reports indicate that rural breast cancer patients had significantly less access to state-of-the-art technology. (Higginbotham, Moulder, & Currier, 2001; Howe, Leehnerr, & Katterhagen, 1997; Wright, Champagne, Dever, & Clark, 1985).

Public Policy

One of the fundamental features of America’s population of elderly women is its larger majority, basically because their death rates are lower than those of men. Life expectancy has increased rapidly this past century and some predictions are that by 2050, the average life expectancy for women will be 90 years. Today, the life expectancy of the average 70-year old woman is 15.5 years, and six additional years are contemplated for the woman who reaches 85 years of age (Olshansky et al., 2005).

The availability of many medical screening tools, tests, therapies, and procedures presents ethical, legal, and political questions. Breast cancer screening issues for elderly women have presented challenges for years. Ethically, are health care providers able to decide who should or should not be screened? If a woman who reaches 85 years today has a life expectancy of up to six more years, could the lack of screening or treatment be a grossly unethical disservice? Or, what of women with dementia in LTC—would screening for this population be carrying an issue carried too far? Initially, it may seem so; yet terminal disease secondary to breast cancer is very painful, very slow and the lack of simple treatment efforts could be construed as outrageous.

Summary

At present, the benefits of early diagnosis and treatment for greater numbers of elderly women are many. Early diagnosis and treatment prevent a later-staged disease. The consequences of metastasis are physically and emotionally devastating, and often persist for long periods of time. The medical, nursing, socioeconomic, and psychosocial costs of end-stage cancer are staggering by comparison to the costs of early disease treatment (Drugay, 1993).

As the number of elderly women in this country rises, so does the incidence of breast cancer. There has been limited research on the old, old segment of the breast
cancer population. Well over a decade ago, Constanza et al. (1992) asserted that quality-of-life issues greatly affect the appropriateness of breast cancer screening for women of all ages. Zapka and Berowitz (1992) offered a challenge to dispel negative attitudes toward making prevention services available to elderly women. Important questions remain regarding how the rural elder women in LTC fare regarding breast cancer screening, diagnosis, and treatment.

METHODS

Sample

The purpose of this descriptive study was to examine the breast cancer screening services available for the elderly women in skilled long-term care facilities (LTC) in a rural US state. The study was approved by the researcher’s Institutional Review Board. The target population for this study was the Directors of Nursing (DONs) for skilled LTC facilities in a rural state. LTC facilities were considered “rural” if they were situated in communities with a population of under 2500. For this statewide study, 57 facilities met the inclusion criteria for this purposeful sampling.

Instrument

The survey instrument was developed against the literature, the researcher’s experience, and upon counsel of expert practitioners. Champion (1993, 1994) and others have published extensive research to establish strong evidence for construct validity of the Health Belief Model, with a lengthy list of statements that evidence validity and reliability of each HBM scale (perceived susceptibility, seriousness, benefits, and barriers for screening). Those items deemed relevant to the research questions were selected for this study. Items considering the DONs’ roles, responsibilities, and perceptions of their professional influence were largely adapted from the American Nurses Association statement on the roles, responsibilities, and qualifications of nurse administrators in LTC and a review of the literature (Aroian, Patsdaughter, & Wyszynski, 2000; Buchanan et al., 2006; Ebersole, Hess, Touhy, & Jett, 2005). Validity for the final survey instrument was assessed by a breast health research expert, two oncology nurses, and a registered nurse whose expertise is in breast health.

The survey began with an introduction and purpose, and proceeded with fixed-choices, Likert-scales, and qualitative open-ended questions considering (a) an estimate of how many elderly women in each LTC facility receive a regular clinical breast exam—by either the physician or nurse, and of how many women residents receive a mammogram per American Cancer Society guidelines; (b) items reflecting components of the Health Belief Model, which identifies variables that may affect a woman’s perception of breast cancer susceptibility and breast cancer seriousness, as well as the perception of the benefits of breast cancer screening and barriers to screening; (c) the responding DON’s perception of ability to influence care for the residents in his/her facility; (d) the personal value placed on practices for breast cancer screening by the female DONs themselves; and (e) demographic information.
Procedure

Each participant in this purposeful, inclusive sample received a questionnaire packet which included the survey and a self-addressed, postage paid return envelope. The letter of introduction explained the study purpose, provided contact information, indicated that participation was purely voluntary, and assured anonymity in any subsequent study reporting.

Data Analysis

Study data were analyzed using the statistical software package SPSS (SPSS Inc., Chicago, IL). Descriptive and inferential statistics were used to analyze the quantitative data; qualitative data were analyzed as appropriate.

RESULTS

Study Sample Description

There are 57 skilled LTC facilities in rural communities of this state. Each Director of Nursing in these facilities were used as the target population for this study. A total of 39 DONs completed and returned the survey, for an overall return rate of 68.4%.

Demographics

The DONs ranged in age from 32 to 63 years, most held a baccalaureate degree, and the majority were female. Employment experience overall was of 21 years, with the experience range being 4 to 43 years, and the geriatric-specific practice an average of 13.8 years. The DONs averaged 10.7 years of employment at their present facility; two had been there for 30 years. The DONs had an average of 6.7 years as Directors of Nursing, with a range of 1 to 30 (see Table 1).

Table 1
Demographics of Respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>valid %</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>39</td>
<td>45.9</td>
<td>8.0</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate degree</td>
<td>5</td>
<td>12.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>27</td>
<td>94.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2</td>
<td>6.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of Nursing Experience</td>
<td>39</td>
<td>21.1</td>
<td>9.1</td>
<td></td>
</tr>
<tr>
<td>Years of Geriatric Nursing</td>
<td>39</td>
<td>13.8</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td>Years of Employment at Facility</td>
<td>39</td>
<td>10.7</td>
<td>8.6</td>
<td></td>
</tr>
<tr>
<td>Years of Director of Nursing Experience</td>
<td>39</td>
<td>6.7</td>
<td>6.8</td>
<td></td>
</tr>
</tbody>
</table>
Research Question #1 – Clinical Breast Exam Frequency

The DONs were asked to indicate an estimate of the number of elderly women in their facility who receive regular (annual) clinical breast examinations (CBE). Responses were analyzed using frequencies and percentages. Fourteen (25.9%) DONs reported that many (over 75%) of the elderly women in their LTC facility do receive regular CBEs by a provider. Seventeen (43.6%) respondents reported that less than 25% of the elderly women in their LTC facility receive a CBE. Thirty-two (82%) of the DONs reported that few, if any (0-25%) of the elderly female residents receive breast examination by a nurse (see Table 2).

Table 2
Breast Cancer Screening Services Utilized for Elderly Women as Reported by Long-term Care Facility Directors of Nursing

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Valid %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimate of female residents receiving annual breast examination by physician</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–25%</td>
<td>17</td>
<td>43.6</td>
</tr>
<tr>
<td>26–50%</td>
<td>5</td>
<td>12.8</td>
</tr>
<tr>
<td>51–75%</td>
<td>3</td>
<td>7.7</td>
</tr>
<tr>
<td>Over 75%</td>
<td>14</td>
<td>35.9</td>
</tr>
<tr>
<td>Estimate of female residents receiving annual breast examination by nurse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–25%</td>
<td>32</td>
<td>82.1</td>
</tr>
<tr>
<td>26–50%</td>
<td>3</td>
<td>7.7</td>
</tr>
<tr>
<td>51–75%</td>
<td>0</td>
<td>31.1</td>
</tr>
<tr>
<td>Over 75%</td>
<td>4</td>
<td>10.2</td>
</tr>
<tr>
<td>Estimate of female residents receiving regular (annual) mammogram</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–25%</td>
<td>34</td>
<td>87.0</td>
</tr>
<tr>
<td>26–50%</td>
<td>3</td>
<td>8.0</td>
</tr>
<tr>
<td>51–75%</td>
<td>2</td>
<td>5.0</td>
</tr>
<tr>
<td>Over 75%</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>n = 39</td>
<td></td>
<td></td>
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</tbody>
</table>

Research Question #2 – Mammography Frequency

The DONs were also asked to report an approximate percent of the elderly women in their LTC facility who receive a regular (annual or bi-annual) mammogram. Thirty-four (87.2%) DONs reported that 0-25% of the elderly women in their facility receive a regular mammogram, and indicated that most never have a mammogram. Three DONs responded that 26-50% of their LTC women receive mammograms, and two indicated 51-75% of the female residents in their facility receive a regular mammogram (see Table 2). Three DONs provided comment that access to mammography is a barrier for mammography utilization. For those facilities where women did receive mammography, the elderly resident needed to be transported to a nearby hospital for the service.
Research Question #3 – Factors Influencing Screening Services

The third study segment was an inquiry of how the Health Belief Model (HBM) may relate to individuals (DONs) who are charged with the care delivery for those who may not be in a position to act or speak for themselves, such as is the case for a majority of old-old women in LTC. This data analysis involved a recoding of some of the items, so that all survey statements were presented in the same direction, negative to positive.

Every (n = 39) DON reported a strong responsibility to serve as advocates for the residents in LTC, and that they have considerable influence with provider decisions for the care delivery of LTC residents. Internal consistency reliability coefficients (Cronbach's alpha) ranged from .70 to .85 for the DON’s roles and responsibilities subscale, and .89 for the total scale, which were quite favorable and comparable to Heine's (1998) published psychometric estimates. The last segment involving a DON’s perception of influence was considered in relation to actual screening utilizing Chi-square; significance was established at 0.05.

The DONs were asked to rate the HBM concepts of perceived susceptibility (to breast cancer), benefits (of screening), and barriers (to screening) on 12 HBM items, the reports are presented categorically:

Perceived susceptibility. In broad summary, most of the DONs reported that they “agree” and “strongly agreed” that “elderly women’s' changes of getting breast cancer are great.” DONs documented some level of disagreement that breast cancer for elderly women is considered a hopeless disease.

Perceived benefits of screening. All of the responding DONs in these rural LTCs considered the early detection of breast cancer as pivotal in prolonging life, and that early detection and treatment could prevent cancer suffering for elderly women in LTC. To some degree, all of the DONs felt that elderly women do benefit from screening.

Perceived barriers to screening. The majority of DONs documented mammography as appropriate for elderly women in LTC, though one completely disagreed. They reported that facility physician(s) do not encourage mammograms; although seventeen respondents do have providers who they felt would be open to increasing breast cancer screening prevalence in their facility. The large majority of respondents report that embarrassment for elderly women residents would not be an issue for screening, and six believe that mammograms are too expensive to be efficacious in LTC. Most DONs felt that the time for breast exams and mammography was not an issue, or barrier, to screening services.

Directors of Nursing: Personal Screening Behaviors

Four survey statements were designed to gain additional insight regarding breast cancer experience and screening strategies by the DON respondents. One of the DONs was a breast cancer survivor. Twelve (30.8%) of the DONs reported that they perform breast self-examination monthly; many (56%) perform BSE only occasionally, every three to four months. Three DONs reported performing BSE once a year or less. Eighteen (30%) of the DONs responding (n=39) do not receive regular mammograms, and 70.3% (n=26) of the DONs receive a regular (annual or bi-annual) clinical breast examination (see Table 3).
Table 3
Reports by Female Directors of Nursing on Personal Breast Cancer Issues

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Valid %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directors who practice breast self-examination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–25%</td>
<td>3</td>
<td>7.7</td>
</tr>
<tr>
<td>26–50%</td>
<td>22</td>
<td>56.4</td>
</tr>
<tr>
<td>51–75%</td>
<td>12</td>
<td>30.8</td>
</tr>
<tr>
<td>Over 75%</td>
<td>2</td>
<td>5.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Directors who receive regular mammograms</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>19</td>
<td>51.4</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>48.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Directors who receive regular clinical breast examinations</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26</td>
<td>70.3</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>29.7</td>
</tr>
</tbody>
</table>

n = 37

DISCUSSION

The purpose of this descriptive study was to examine the breast cancer screening services available for the elderly women in rural, skilled long-term care facilities. The respondents in this study were Directors of Nursing for rural LTC facilities in one rural state. The DONs were seasoned nurses and experienced managers. The majority of the DONs held baccalaureate degrees in nursing. They all report holding high value on breast screening practices, and perceive themselves as being strong advocates and having strong influence for the care delivery of their LTC residents. Interestingly, a chi-square revealed no statistically significant association as to the DON’s own perception of strong influence on directing care and the number of those elderly women who receive breast cancer screening.

The majority of DONs reported that less than half of the elderly women in their facilities receive a CBE regularly. As expected, 87.2% of the DONs report that mammograms are seldom, if ever, given to the elderly in their LTC. There was significant association between the few LTC facilities whose DONs reported regular mammography screening for their elderly women and the availability of on-site service (chi-square = 25.50, df – 4, p = .001).

A T-test showed significance when relating DONs who report having few clinical breast examinations in their LTC to the DONs whose personal breast screening practices were also low. No statistically significant relationships were found between breast cancer screening practices and demographics, nor to the DONs’ perception of the elderly woman’s susceptibility (to breast cancer), of the benefits (of screening), and of the barriers (to screening).

Breast exams were noted by a few of the DONs to be a “part of the annual physician’s examination.” Several commented on their appreciation of inspiring them to trigger this level of secondary prevention for breast cancer in their facilities. One DON wrote this concluding comment, “in rural areas such as ours, physicians are pushed to the
limits for client care, both in and outside of the nursing home. Breast exams and mammograms are simply not a priority.” Another DON wrote, “I had a cancerous condition for which I had a double mastectomy about 12 years ago; I feel these exams are important for every woman alive!”

The American Cancer Society guidelines for breast cancer detection call for annual mammograms starting at the age of 40, and for clinical breast examinations every three years for women 20-39 and annually for women 40 and older. The recommendation is for self-breast examination monthly starting at the age of 20 (American Cancer Society, 2003). Not only are the elderly women in this study far behind the American Cancer Society guidelines for breast cancer detection, the DONs in these rural LTC facilities fall far behind as well. The results of this research strongly suggest that the elderly women are not being assessed for potential breast cancer findings; and that majority of the female DONs are not practicing breast self-examination every month as recommended by consensus guidelines. In addition, few elderly LTC women receive a regular mammogram, and only one-half of the DONs studied receive a routine mammogram themselves.

All DONs agreed to some extent that “early detection of breast cancer can prolong life,” and the majority that “early detection and treatment could prevent suffering for elderly women.” In addition, DONs agreed that advancing age makes it more likely that women could get breast cancer. However, the breast cancer prevalence and screening beliefs of the DONs did not correlate with the Directors’ health promoting activities. The majority report that breast cancer detection is seldom utilized and few believed that nurses in their facilities would perform CBEs.

**Limitations**

The first limitation of this study was that while the response rate was impressive at 68.4%, the sample is not necessarily representative of all rural, skilled, LTC facilities. The question of validity and accuracy of self-reporting by the facility DONs could be an issue in that respondents may have been inclined to present the perceived correct (but false) response. In addition, the constructs of the Health Belief model must be modifiable to replace “individuals” with “health care providers” (responsible for a LTC resident’s care). Finally, the survey was largely author-developed and survey segments lacked tested reliability and validity.

**CONCLUSION AND RECOMMENDATIONS**

As with the findings by Kenny and Keenan (1991), the elderly women in the rural LTC facilities of this state are not receiving breast cancer screening services according to established guidelines. The majority of elderly women in these rural facilities do not receive breast examinations and routine mammograms. Moreover, the professional nurse leaders in these rural facilities do not adhere to consensus guidelines for breast cancer screening.

It appears that some health care providers consciously set an upper age limit at which they stop ordering mammography or performing breast exams. In the past, Zapka and Berkowitz (1992) documented concerns related to screening elderly women, (a)
whether the screening and testing procedures are worth the time, and (b) whether preexisting medical conditions are more of a threat to a woman’s health and welfare than breast cancer, and thus negate the efficacy of breast cancer screening options. One physician was quoted, “She would have died of something else before she would have died of cancer” (Zapka and Berkowitz, 1992, p. 94). This negative approach to healthcare delivery for older woman is “a good example of the paternalism that has dominated the medical care system in our country and has probably has been a force in the care of older women, who were totally dependent on the provider, and whom she never doubted or questioned” (Salk, Sanford, Swenson, & Luce, 2001, p. 678.

A review of the literature supports the importance of breast cancer detection for women over age 65. The American Cancer Society recommends that mammograms be received annually once age 50 and beyond. Asymptomatic elderly women should have a CBE every year, and monthly breast examination should be done by, or for, women of all ages (American Cancer Society, 2003).

Routine breast self-examination is a simple technique, certainly to be understood by the healthcare professional as one important aspect of personal health surveillance. Mammography is known to be an effective weapon in the early detection of breast cancer; nurses must commit to regular mammograms and advocate for women to receive mammography. Nurses in gerontology can incorporate a regular breast exam for their elderly female residents; and, perhaps providers for those who might see screening as “unnecessary” would respond to advocacy efforts by nurses.

Clinical breast examination and mammography are preventive health activities. These activities cannot assure any diminished chance of contracting breast cancer, but these techniques can detect cancer at the earliest possible stage. This detection can not only prevent suffering and incredibly gruesome sequelae, but also afford a woman the better chance for survival. Nurse leaders must believe and demonstrate the value of breast cancer screening. Reports of the personal underutilization of screening services by rural Directors of Nursing in long-term care are of concern and indicate that a large segment of these DONs evidently place little value on their own breast health. Consequently, the Director may devalue the benefits of screening the elderly woman for whom she directs and controls care. The gerontological nurse who operates from a framework that devalues the elderly in relation to health promotion may not deliver, or encourage, the important opportunity for health screening activities. When placing a high personal value on prevention and screening, health care clinicians can then best advocate for those whom they direct care for.

Nurses are in position to assume a proactive stance for efforts at early detection and diagnosis of breast cancer in older women. Nurses in all realms must practice and advocate the recommended modalities for cancer detection. The elderly women in LTC appear to be a nearly forgotten segment of the research arena. There are little data to support screening activities for elders in LTC. Long-range studies of the old, old women in LTC may observe how their health care patterns change, and may observe just how the health care providers respond to aging.

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REFERENCES

Champion, V. (1994). Beliefs about breast cancer and mammography by behavioral stage. Oncology Nursing Forum, 21(6), 1009-1014. [MEDLINE]
Diab, S., Elledge, R., & Clark, G. (2000). Tumor characteristics and clinical outcome of elderly women with breast cancer. Journal of the National Cancer Institute, 92(7), 550-556. [MEDLINE]
Hance, K., Anderson W., Devesa, S., Young, H., & Levine P. (2005) Trends in inflammatory breast carcinoma incidence and survival: The surveillance, epidemiology, and end results program at the National Cancer Institute. Journal of the National Cancer Institute, 97(13), 966-975. [MEDLINE]


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