The Value of Breast Self-Examination: Meta-Analysis of the Research Literature

Ya-Lie Ku, RN, MSN, PhD(c)

Purpose/Objectives: To review 20 studies examining the relationship between breast self-examination (BSE) behaviors, BSE education, the stage of breast cancer at diagnosis, and the mortality or survival rates for breast cancer.

Data Sources: 20 studies from medical and nursing journals.

Data Synthesis: In the articles reviewed, the relationship between the value of BSE and BSE behaviors and education (defined as the stage of breast cancer at diagnosis and the mortality or survival rates for breast cancer) was unclear. Methodologic issues such as research design, confounding variables, operational definitions, and sampling were inconsistent and weak.

Conclusions: Meta-analysis suggests that the healthcare research community should state BSE research findings in terms of recommendations for further studies. Until a large number of prospective, randomized, and controlled studies of the relationship between BSE behaviors and education and the value of BSE are conducted, researchers will be unable to make a definitive statement regarding whether BSE provides advantages in detecting breast cancer at an earlier stage, reducing mortality, and increasing survival rates for women with breast cancer.

Implications for Nursing Practice: Nurse researchers play a key role in conveying the methodologic issues involved in BSE research to the healthcare community and are encouraged to publish their studies in medical journals. When the relationship between the value of BSE and BSE behaviors and education can be confirmed systematically, the healthcare community will recognize and use nurses’ research findings to better inform women about breast health.

Key Points . . .

➤ The bulk of research on breast self-examination (BSE) has focused on techniques and educational strategies.
➤ The impact of BSE on stage of cancer at diagnosis and survival remains unclear.
➤ Nursing’s focus regarding BSE may differ from medicine’s focus.
➤ Structured BSE education must be combined with prospective data-gathering on stage at diagnosis and survival in order to study BSE comprehensively.

Early Detection

A decrease in mortality from breast cancer indicates the importance of detection of breast cancer in its early stages. One way to detect breast cancer early is to regularly practice comprehensive breast cancer screening behaviors: BSE, CBE, and mammography screening. According to ACS (2001), U.S. women aged 20 or older should practice BSE every month (ACS, 2001). CBE also should begin at age 20 and be repeated every three years from ages 20–39 and every year over age 40 (ACS, 2001). Mammography screening for U.S. women should begin at age 40 and be repeated annually (Greenlee et al., 2001).

However, mammography screening seldom is performed more than once a year because of the potential harm of cumulative radiation. In particular, younger women who have dense breast tissue tend to absorb more exposure radiation than older women, who often have fatty breast tissues (Cady et al., 1998). Because breast lumps might develop during the period between

Ya-Lie Ku, RN, MSN, PhD(c), is an instructor of community and long-term care at Foo-Yin Institute of Technology in Kaohsiung, Taiwan. (Submitted July 2000. Accepted for publication December 6, 2000.)