Online Exclusive Article

Effects of Tailored Message Education About Breast Cancer Risk Appraisal for Obese Korean Women

SoMi Park, PhD, RN, ChaeWeon Chung, PhD, RN, and Barbara B. Cochrane, PhD, RN, FAAN

Purpose/Objectives: To examine the effects of tailored message education about breast cancer risk in obese Korean women.

Design: Pretest/post-test with two comparison treatments.

Setting: Rural community settings in South Korea.

Sample: Non-random sample of 64 obese women.

Methods: Based on the Health Belief Model, tailored message education involved a one-session individual approach addressing cognitive, emotional, and behavioral domains. The comparison group received a one-time standard education group session. Data on breast cancer risk factors and mammography findings were recorded.

Main Research Variables: Knowledge, awareness, emotional barriers, self-efficacy, and intent to screen and prevent breast cancer.

Findings: Compared to standard education, tailored message education showed significantly higher score changes on awareness of personal risk ($F = 5.21$, $p < 0.05$), self-efficacy for breast self-examination (BSE) ($F = 5.16$, $p < 0.001$), intent to perform BSE ($F = 6.24$, $p < 0.05$), intent to have mammography ($F = 5.45$, $p < 0.05$), and intent to prevent breast cancer with eating habits ($F = 7.28$, $p < 0.05$) and exercising ($F = 12.51$, $p < 0.001$).

Conclusions: Individually tailored education effectively enhanced awareness of personal risk for breast cancer, self-efficacy for BSE, and intent to screen and prevent breast cancer.

Implications for Nursing: Tailored message education targeting breast cancer and risk associated with obesity is useful in breast cancer screening education. Future studies should incorporate individualized messages on nutrition, exercise, and cultural barriers to reduce breast cancer risk in obese women.

Knowledge Translation: Individual educational strategies can effectively enhance breast cancer prevention and early screening. Public and preventive education should include a focus on cultural, cognitive, and emotional domains. For obese women, a heightened awareness and self-efficacy may influence screening behaviors.

The prevalence of breast cancer among Korean women since 2001 has alarmed health professionals and prompted Korean national health organizations to provide active breast cancer prevention education and screening services. Unlike the decrease in breast cancer rates in the United States (American Cancer Society [ACS], 2011), incidence rates in Korea increased an average of 6% per year from 1999–2009, a rise from 24.5 per 100,000 people in 1999 to 43.8 per 100,000 people in 2009, based on data from the Korean Ministry of Health and Welfare (National Cancer Information Center [NCIC], 2012b).

The growth in breast cancer incidence rates has been attributed to several factors, including a more Westernized food pattern, lower birth rate, longer estrogen exposure, and an increasing proportion of women with high body mass indices (BMIs) (Paik, 2009). The obesity rate in Korean women has increased from 25% to 27% since 2000. About 64% of women are considered overweight or obese; in particular, women aged 60–69 years had the highest prevalence of obesity at 56% in 2009 (Ministry for Health, Welfare, and Family Affairs, & Korea Centers for Disease Control and Prevention [MHWFA & KCDCP], 2010), based on Korean Society for the Study of Obesity BMI definitions (Ou et al., 2002) of overweight as 23–24.9, mild obesity as 25–29.9, and severe obesity as 30 or higher. The change in obesity rates is attributed to a prevailing Westernized diet and fast food consumption, excessive intake of carbohydrates in the staple Korean diet, and a more sedentary work and living style (MHWFA & KCDCP, 2010).

Increased BMI and obesity rates are significantly associated with the risk of developing breast cancer in Korean studies (Jee et al., 2008; Song, Sung, & Ha, 2008). Obese people may suffer from restricted mobility that limits access to screening sites, or they may be less willing to undergo testing (Amy, Aalborg, Lyons, & Keranen, 2006). Consistent with findings in Western studies (Ferrante, Chen, Crabtree, & Wartenberg, 2007; Wee, McCarthy, Davis, & Phillips, 2000), one Korean study showed that, compared with normal-weight women, overweight and mildly obese women were less likely to have undergone mammography (odds ratio [OR] = 1.28, 95% confidence interval [CI] [1.09, 1.51] and OR = 1.21,