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# Pre- and Postintervention Differences in Acculturation, Knowledge, Beliefs, and Stages of Readiness for Mammograms Among Korean American Women

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**T**he number of Americans with Korean ancestry in the United States is about 1.3 million, representing 0.4% of the total U.S. population. Of that population, 75% are foreign-born, 58% are women, and 42% are women aged 35 years or older (U.S. Census Bureau, 2006). Breast cancer is the most frequently diagnosed cancer among Korean American women (McCracken et al., 2007), and those diagnosed present with larger tumor size and more advanced-stage breast cancer than Caucasian women (89% versus 70%) (Hedeem, White, & Taylor, 1999), implying that Korean American women adhere less to recommended breast cancer screening guidelines. Korean American women also have higher breast cancer incidence rates than women in their native country (16.9 versus 10.9 per 100,000) (Gomez et al., 2003); however, reasons for this are unknown. Some evidence suggests that breast cancer risk among Asian women increases after at least 10 years of living in the United States (Deapen, Liu, Perkins, Bernstein, & Ross, 2002; Ziegler et al., 1993), but solid evidence related to risk factors, such as Western diet, genetics, or environment, has yet to be discerned. Because early detection through routine screening contributes to a decrease in breast cancer mortality, the particularly low rates of adherence to recommended breast cancer screening guidelines among Korean American women are disconcerting.

Reports on mammography screening use among Korean American women suggest that more than 50% have had a mammogram at some point in their lifetime but that recommended mammography screening guidelines have not been followed: 33%–39% had a mammogram in the past year, 53%–59% had mammograms within the preceding two years, and 78% had at least one mammogram in their lifetime (Centers for Disease Control and Prevention [CDC], 2004; Juon, Kim, Shankar, & Han, 2004; Kandula, Wen, Jacobs, & Lauderdale, 2006; Lee, Fogg, & Sadler, 2006;

**Purpose/Objectives:** To assess differences in acculturation, knowledge, beliefs, and stages of readiness for mammograms from pre- to postintervention among Korean American women aged 40 years or older.

**Design:** Prospective, repeated measures, quasi-experimental.

**Setting:** A Korean American senior center in the midwestern United States.

**Sample:** 300 Korean American women aged 40 years or older with no breast cancer diagnoses and who were non-adherent with mammography screening.

**Methods:** Following completion of the preintervention questionnaire, the women attended a 45-minute interactive breast cancer early screening education session (GO EARLY) organized according to stages of readiness for mammography use (i.e., not thinking about having one, thinking about having one, and had one in the past). Postintervention data were collected six weeks following the educational session.

**Main Research Variables:** Acculturation, knowledge, beliefs (perceived risk, pros, cons, fear, self-efficacy, modesty, fatalism), and stages of readiness for mammography use.

**Findings:** At preintervention stages of readiness, women thinking about having a mammogram (contemplators) had significantly lower knowledge scores and higher cons to mammography use than women who had mammograms in the past (relapsers). Women not thinking about having a mammogram (precontemplators) had significantly lower self-efficacy for having a mammogram and higher cons than relapsers. The GO EARLY session was most effective in increasing knowledge, decreasing perceived cons, and increasing perceived self-efficacy. No statistically significant intervention effect was noted on upward shift in stage of readiness for mammography use postintervention.

**Conclusions:** The GO EARLY intervention, the first study to assess stages of readiness for mammography use among Korean American women, was feasible and culturally sensitive and can be replicated in various Korean American communities.

**Implications for Nursing:** Culturally appropriate educational programs can serve to change women's perceptions and knowledge, and such changes may lead to changes in health behavior.