

# The Effects of Standard Care Counseling or Telephone/In-Person Counseling on Beliefs, Knowledge, and Behavior Related to Mammography Screening

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**Purpose/Objectives:** To determine the most effective methods of increasing mammography adherence while also considering ease of intervention delivery in evolving healthcare systems.

**Design:** Experimental.

**Setting:** Women from a health maintenance organization and a large general medicine practice.

**Sample:** Women 50–85 years of age who had not had breast cancer and did not have a mammogram within the last 15 months.

**Methods:** Once consent and baseline information were obtained, women were randomized to receive in-person, telephone, or no mammography counseling.

**Main Research Variables:** Mammography adherence, perception of susceptibility to breast cancer, and benefits, barriers to, and knowledge of mammography.

**Findings:** Compared to standard care, telephone counseling was more than twice as effective at increasing mammography adherence, whereas in-person counseling resulted in almost three times the mammography adherence postintervention. Both telephone and in-person counseling are successful in changing perceived susceptibility, knowledge, barriers, and benefits.

**Conclusion:** Both telephone and in-person counseling interventions were successful in changing beliefs, which, in turn, increased mammography adherence.

**Implications for Nursing Practice:** Interventions based on altering beliefs are effective for increasing mammography adherence.

Several prospective randomized studies have established a decrease in mortality for women between the ages of 50–69 (Anderson et al., 1988; Fletcher, Black, Harris, Rimer, & Shapiro, 1993; Roberts et al., 1990; Shapiro, 1989; Shapiro, Venet, Strax, Venet, & Roeser, 1982) who have received a mammogram. Based on these studies, the National Cancer Institute and the American Cancer Society have recommended annual mammography for women age 50 and older (Leitch et al., 1997). Although the majority of women in the United States have had at least one mammogram, more than 50%

## Key Points . . .

- ▶ Cost-effective methods to promote mammography screening in age-appropriate women are needed.
- ▶ Both telephone and in-person counseling can be effective in increasing perceived susceptibility to breast cancer and perceived benefits of mammography as well as decreasing perceived barriers to mammography.
- ▶ Both telephone and in-person counseling are effective means of increasing knowledge about mammography.
- ▶ Telephone counseling was twice as effective as standard care in increasing compliance, whereas in-person counseling was almost three times as effective.

of women do not have consistent yearly mammograms (Massachusetts Medical Society, 1998). Healthcare professionals need to target those women who are noncompliant with yearly screening.

## Theoretical Framework

The counseling intervention reported in this article builds upon the previous work of the principal investigator and is based on the Health Belief Model (HBM) (Janz & Becker, 1984) as well as Prochaska and DiClemente's Transtheoretical Model (1984). According to the HBM,

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