



Women's Stories: A Video on the Importance of Mammograms

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Abbreviated Abstract

Despite years of public health intervention, fewer than one-half of all U.S. women aged 50 years or older get recommended mammograms. This percentage is even lower among older minority women. New approaches are necessary to increase mammography screening among women aged 50-75. The Theory of Planned Behavior suggests that messages from a person's reference group can have an impact on beliefs and behavior. Further, research in cognitive psychology suggests that often a memorable example can have a greater impact than facts and figures. The aim of this Phase II proposal is to produce a high-quality videotape focusing on women's stories that will encourage women over 50 to get mammograms. Women telling their stories will be in the target age range, ethnically diverse, and individuals with whom viewers have affinity. This innovative approach is highlighted by the following:

- The videotape will focus on women's stories;
- The approach is theoretically grounded;
- The videotape will present real, everyday women that most women can relate to (African American and Hispanic women are particularly targeted);
- The approach is easily implemented to reach a wide audience; and
- The effectiveness of the videotape will be evaluated in a randomized trial.

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Total Budget

\$794,011

Research Objectives

AIMS

1. To produce a high-quality videotape focusing on women's personal experiences that will encourage women over the age of 50 years to get regular mammograms.



2. To conduct a randomized field trial to test the effectiveness of the videotape compared to informational pamphlets.

Theory/Hypothesis

The theoretical basis for our approach is derived from Ajzen's (1991) Theory of Planned Behavior (TPB). According to the TPB, the two primary proximal determinants of any behavior are intentions and perceptions of control over the behavior. Intentions, in turn, are influenced by perceived control, attitudes, and subjective norms. The theory also holds that beliefs play an important role in all three of these intermediate factors. The TPB has been successfully applied to breast and testicular examination (Lauver and Chang, 1991; Brubaker and Fowler, 1990; Young et al., 1991; McCaul et al., 1993).

The causal chain in the TPB implies that changing beliefs is one of the key ways to change behavior. If this hypothesis is true, then the TPB suggests that these beliefs will lead to more favorable attitudes, more influential subjective norms, and greater perceived control, which will increase the likelihood of adopting the desired behavior. Since videotape portrayals are more engaging and vivid than a written medium, they are more likely to modify women's beliefs than are brochures. As a result, women viewing the videotape can be expected to have higher rates of the behavior of interest (annual mammography screening) than women who are given only brochures.

Experimental Design

A prospective randomized trial was successfully conducted to test the effectiveness of the videotape in improving mammography rates. The videotape's effectiveness was measured in comparison to a pamphlet ("Mammograms: Not Just Once, But for a Lifetime") distributed by the National Cancer Institute. After completing a baseline survey, each woman was randomly assigned to receive either the videotape or the pamphlet. Participants were re-contacted 2 months after baseline to get their reactions to materials and at 12 months to determine mammography use.

Final Sample Size & Study Demographics

The trial involved women aged 50-70 years who were randomly sampled from selected areas in the Massachusetts cities of Boston, Lawrence, and Springfield. Minority areas were oversampled to produce similar numbers of African American, Latino, and Caucasian women. A total of 581 women (86% response rate) completed the followup survey.

The racial, ethnic, and gender characteristics of the 709 age-eligible women who completed baseline questionnaires are shown in the tables below.

PART A: TOTAL ENROLLMENT REPORT

Ethnic Category	Females	Males	Total
Hispanic/Latino	176	0	176
Not Hispanic/Latino	533	0	533
Total All Subjects	709	0	709
Racial Category			
American Indian/Native	3	0	3
Asian	2	0	2
Black/African American	215	0	215
White	338	0	338
Unknown/No Response	151	0	151
Total All Subjects	709	0	709

PART B. HISPANIC ENROLLMENT REPORT

SBIR Product Directory

Turning Cancer Research into Commercial Products



Racial Category	Females	Males	Total
American Indian/Native	1	0	1
Black/African American	8	0	8
White	45	0	45
Unknown/No Response	122	0	122
Total All Subjects	176	0	176

Data Collection Methods

Surveys, inquiry into mammogram use

Outcome Measures

Mammography use, effectiveness of videotape.

Evaluation Methods

The experimental and control groups were compared for mammography use with logistic regression models.

Research Results

Statistical analyses of the survey responses showed a small, favorable impact on followup mammography rates. Adjusted for demographic characteristics and prior mammography behavior, the 1-year followup rates were 80.4 percent in the video group and 74.8 percent in the pamphlet group. Women in the video group were also more likely to feel that mammograms were "assuring" and "beneficial." More than 90 percent of the respondents rated the video as "informative," "understandable," and "high quality," and 83 percent said they would definitely recommend the videotape to other women.

Barriers & Solutions

Product(s) Developed from This Research

Mammograms for Life: Pilot television program, Web site, 20-minute video programs, CD-ROM interactive educational game, interactive learning kiosk.