Susan G. Komen for the Cure
Research Grants – Fiscal Year 2012

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**Mobile Phone Multimedia Messaging Intervention for Breast Cancer Screening**

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*Awarded:* $675,000.00

*Grant Mechanism:* Investigator Initiated Research

**Public Abstract:**

Breast cancer poses a significant burden for Korean American (KA) women, who experience high mortality rates from this disease while reporting one of the lowest rates of screening. Previous interventions aimed at increasing mammography among KA women have failed to overcome the many socio-structural-cultural barriers they often have to screening. The proposed project utilizes mobile phone technology—part of the mHealth trend, which uses mobile communication to deliver health information—as a means to improve preventive care and reduce the cancer burden in this community. The Fogg Behavioral Model guides the project in its use of persuasive technology to facilitate health behavior change. The mMammogram intervention uses the mobile phone as the key means of delivering informative and motivational messages to empower KA women to undergo annual mammograms. The following objectives guide the study: (1) to examine the effectiveness of the mMammogram intervention in positively changing KA women’s knowledge, attitudes, and beliefs about breast cancer screening; (2) to assess how effective the intervention is in making KA women ready to get a mammogram; (3) to investigate the mMammogram’s usefulness in increasing screening in this population, compared to the typical brochure intervention; and (4) to explore the extent to which mMammogram participants find the intervention acceptable and feasible. The project will unfold over three years. Year 1 will be devoted to intervention and protocol development; Year 2 and first half of Year 3 will focus on intervention delivery and information gathering, using a randomized controlled trial with pre-, post-, and follow-up tests; and the last half of Year 3 will include analyzing data and sharing informative results through journal articles and presentations. No similar intervention has yet been evaluated in this minority group, so the pilot study will provide vital information as to the mMammogram’s feasibility. It will also help identify how impactful the intervention is on mammogram use, which will inform subsequent larger scale research. This study will help us better understand how to overcome barriers that get in the way of important preventive care and screening among KA women. It will also investigate the usefulness of mobile persuasive technology in advancing positive health behavior in medically underserved groups. If the intervention is successful in promoting screening, it would have far-reaching implications for reducing breast cancer mortality. We anticipate that the model will ultimately be adapted to promote other types of screening in this population, such as colorectal or prostate cancer screening. We also foresee the mMammogram being easily translated to other underserved minority communities and adopted for other cancer prevention and control behaviors. The lessons learned and outcomes gained will help address breast cancer disparity among diverse U.S. populations.