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THE PERSUASIVE POWER OF TEXT MESSAGES FOR BEHAVIOR CHANGE:
ENCOURAGING YOUNG ADULTS TO INCREASE PHYSICAL ACTIVITY

Persuasive text message-based technology, designed to change people's attitude and behavior, have been used for encouraging numerous health behavior changes. While some met with success, others did not. The reasons for success and failure of text messages for behavior change are unclear. This dissertation investigates some of the factors that might affect the persuasive power of text messages for behavior change and suggest guidelines for design of persuasive text message-based technology. The factors of interest are: 1) The sender of the text messages, 2) Text message tailoring to the level of motivation of people, and 3) Text message technology. To understand the factors affecting text message persuasion, a 3-month study was conducted to encourage physical activity (number of steps) among young adults.

A text messaging system was set up to send/receive text messages to/from participants using any phone with text messaging capability. The study was designed in 2 phases: baseline (1 month) and intervention (2 months) consisting of six groups with varying sender (automated, fitness specialist and friend/family) and message tailoring (tailored and non-tailored). In Baseline, the participants familiarized themselves with the pedometers for tracking and recording the number of daily steps in a Web site. In Intervention, they also received two daily text messages based on their groups. Measures of analysis included number of steps, message ratings, level of motivation, interviews and comments on the Web site.

It was found that text messages were a good way for encouraging physical activity among young adults and tailored text messages were better in encouraging physical activity than non-tailored. Both automated & friends/family had positive impact on physical activity. There was a negative impact on the message ratings when friends/family sent non-personalized text messages. Based on these findings and comments about the text messages, guidelines are given for designing persuasive text message systems.