

Increasing physical activity through a technology mediated intervention

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The proposed research project is a cross-disciplinary effort to address health behavior change and the digital divide in a hard to reach segment of the population. The main goals of this study are to increase physical activity participation in African American women living in a rural environment and to introduce technology to individuals who typically do not have exposure. The study will be a technology mediated physical activity intervention. The intervention will be mediated in that participants will not be required to exercise in a group setting with the research staff. Instead, participants will be provided with exercise programs and the emphasis will be on teaching participants how to make health behavior changes. Participants will be sedentary African American women who are free of chronic disease. They will undergo fitness testing to determine the initial exercise prescription, and then be randomized to exercise or control conditions. Those in the exercise conditions will receive an individualized exercise prescription and strategies to address personal barriers to physical activity. Although participants will be expected to maintain their physical activity programs on their own schedules, they will have weekly contact with the research staff. The weekly contacts will be used to update the programs and to address problems with adherence and physical activity barriers. Personal Digital Assistants and an Interactive Voice Response Center will be utilized to facilitate the delivery of the physical activity programs and to individually tailor the intervention for a large group of women. Additionally, participants will be exposed to advanced technology that may serve to bridge the digital divide. The intervention will last six months and follow-up contacts will be made every 3 months for a 2 year period. At the end of the 6 month intervention participants will complete fitness testing to assess fitness related changes resulting from the intervention. It is expected that there will be improvements in fitness level and chronic disease risk factors related to physical inactivity, such as body weight. It is also expected that short and long term adherence will be increased above what is typically reported in intervention studies due to the emphasis on education about making behavior changes. Finally, we project that participants will incorporate the use of technology into other areas of their lives and make additional technology purchases.