Pilot Study Finds Smartphones May Decrease Sedentary Time, Increase Physical Activity

Report calls use of prompts “a promising strategy”

ATLANTA – January 25, 2016– A pilot study finds that using smartphone reminders to prompt people to get moving may help reduce sedentary behavior. The study was supported by the American Cancer Society, with technical expertise provided by the e-Health Technology Program at the MD Anderson Cancer Center. It appears in the Journal of Medical Internet Research.

Evidence has linked sedentary time to increased risk of breast, colorectal, ovarian, endometrial, and prostate cancers as well as weight gain, higher BMI, and obesity. Nevertheless, adults in the U.S. spend an average of about 8 waking hours per day being sedentary. Few interventions have specifically focused on decreasing and interrupting sedentary time and even less is known about the role of mobile phone technology.

Researchers Darla E. Kendzor, PhD of the University of Oklahoma Health Sciences Center and Kerem Shuval, PhD of the American Cancer Society explored whether smartphone interventions have the potential to influence sedentary behavior. Nearly two in three U.S. adults owned smartphones in 2015.

Participants wore accelerometers, to measure movement, and carried smartphones for seven consecutive days. Participants who reported more than two hours of sitting during the previous day or replied that they were sitting during any random smartphone assessment received a message emphasizing that long uninterrupted sitting is bad for health, and encouraging them to stand up and move around more, and to sit less.

Over the seven-day study period, participants had significantly fewer minutes of daily sedentary time and more daily minutes of active time than controls. Accelerometers recorded three percent less sedentary time than control participants, equaling about 25 minutes of time spent engaged in activity rather than in sedentary behavior on any given day.

Due to the pilot nature of the study it had inherent limitations that should be noted: it was not randomized and the duration was brief. Nonetheless, the authors say: “Overall, simple smartphone prompts appear to be a promising strategy for reducing sedentary behavior and increasing activity, though adequately-powered and well-designed studies will be needed to confirm these preliminary findings. “

Article: Kendzor DE, Shuval K, Gabriel KP, Businelle MS, Ma P, High RR, Cuate EL, Poonawalla IB, Rios DM, Wahnefried WD, Swartz MD, Wetter DW; Impact of a Smart Phone Intervention to Reduce Sedentary Behavior in a Community Sample of Adults; J Med Internet Res doi:10.2196/jmir.5137

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