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Does wearable technology improve physical activity in older adults?

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Although research has shown that regular exercise improves multiple dimensions of health and mortality, only 15-30% of older adults engage in regular exercise. The purpose of this study was to investigate the effectiveness of using wearable technology to improve physical activity and self-efficacy for exercise for older adults. We hypothesized that the use of a Fitbit for eight weeks would improve physical activity and improve self-efficacy for exercise in community dwelling older adults as compared with a control group. Fifteen subjects (74.73 ± 10.24 years old) were given a Fitbit to wear and five subjects (77.2 ± 9.36) were given an activity log to fill out. Both groups were given a walking program to perform 30 minutes a day, three days per week, for eight weeks. The rapid assessment of physical activity (RAPA) and self-efficacy exercise scale (SEE) were completed before and after the eight weeks. The SEE scores improved more for the subjects who wore the Fitbit compared to subjects who filled out an activity log ($p=.011$). The RAPA scores were not significantly different between groups at the end of eight weeks ($p=0.208$). The use of a Fitbit during an eight-week walking program improved older adults' adherence to physical activity recommendations. Additional research is warranted to determine the impact of the use of wearable technology on self-efficacy for exercise in older adults. The subjects reported that they enjoyed wearing a Fitbit to monitor their exercise and that it provided motivation to continue the walking program.

Biography

Dr. Gras and Dr. Fishel are professors in the Department of Physical Therapy at Ithaca College where they teach neurorehabilitation. Dr. Gras has been a faculty member for 18 years and a physical therapist for 27 years. Her research is in fall prevention in older adults. Dr. Fishel has been a faculty member for 3 years and previously working in a rehabilitation setting. Her research is in the area of rehabilitation interventions for individuals with neurologic injury. Kat Crowe is a doctorate of physical therapy student in her final year of the educational program at Ithaca College.

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