Effects of a Six-Month Walking Intervention on the Physical Activity Measures among Older Adults

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Engaging in physical activity is an important part of slowing the decline of mental and physical health, especially among an aging population. **PURPOSE:** The purpose was to track and evaluate a six-month, pedometer-based walking program evaluating the physical activity level in a sample of older adults living in a rural community. **METHODS:** Twenty-one older adults (age: 71.8±5.4 years) from an area senior center volunteered for the study. Sixteen subjects (age: 72.6±5.5 years; height: 158.6±6.3 cm; mass: 81.6±12.6 kg) self-selected to participate in the walking group (WG) and 5 (age: 68.6±4.0 years; height: 157.4±6.2 cm; mass: 80.4±15.5 kg) subjects volunteered for the control group (CON). Daily step frequency (SF) was used to determine baseline activity level by averaging seven consecutive days of pedometer data. The WG followed a ramping protocol designed to increase SF weekly by 1,000 steps until they reached a daily goal of 10,000 steps/day. During the program, the CON was asked to continue their normal activity while wearing the pedometer. The first 3 months (baseline and weeks 4, 8, and 12) of pedometer data were analyzed. SF was analyzed using a 2x4 repeated measures ANOVA. The 12-week average was assessed using a one-way ANOVA. One subject from the WG was not included in the data analysis due to missing pedometer data. **RESULTS:** Initially, there was not a difference between the groups at baseline (WG: 4895±2589 steps/day, CON: 2378±1234 steps/day, $p = .053$). The interaction for group and time was not significant ($p = .059$). However, there were significant main effects for group ($p < .05$) and time ($p = .03$). The independent t tests yielded a significant difference between the groups at week 4 (WG: 7364±3319 steps/day, CON: 3129±1629 steps/day, $p = .01$), week 8 (WG: 7859±4332 steps/day, CON: 2340±843 steps/day, $p < .01$), and week 12 (WG: 7591±3585 steps/day, CON: 2355±1421 steps/day, $p < .01$). The 12-week average was higher in the WG (7251±3305 steps/day) than the CON (2692±799 steps/day). **CONCLUSION:** The first 12 weeks of the study have shown that implementing a pedometer-based walking program, with goals for individuals to achieve, is an effective way of increasing physical activity in older adults.