

Changes in Balance Measures During a Pedometer-Based Senior Citizen Walking Program

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PURPOSE: Balance is an important component of senior citizens' overall health and wellness. The purpose of this study was to assess the effect of a pedometer-based walking program on several balance measures. **METHODS:** Sixteen senior citizens (age = 73 ± 5 years) participated in the walking group, while five (age = 69 ± 4 years) participated in a non-walking control group. Participants completed a baseline test battery and monthly follow-up tests. The results reported here are for the first three months of the walking program. The assessments included the Balance Self-Efficacy Scale (BSE), Single-Leg Balance (SLB), and Get-Up-and-Go (GTAG). Differences between baseline and the three month assessment for each measure were tested for statistical significance using repeated measures ANOVA (criterion of $p = 0.05$). **RESULTS:** The BSE, SLB, and GTAG results are shown in Figures 1-3. Significant differences were found between the walking and control groups for SLB and GTAG at both baseline and three months. The walking and control groups did not differ at baseline on BSE, but they were significantly different at the three-month assessment. **CONCLUSION:** The results of this project indicate that after three months in a pedometer-based walking program, it is possible to identify differences between walking and control groups on balance measures. Future studies should explore the effectiveness of a pedometer-based walking program intervention on senior citizens of even more advanced age.

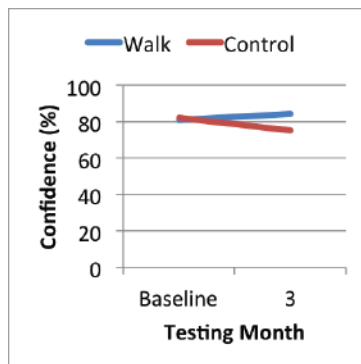


Figure 1. Balance Self-Efficacy Scale results.

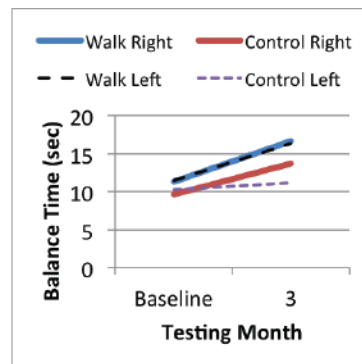


Figure 2. Single-Leg Stance Balance results.

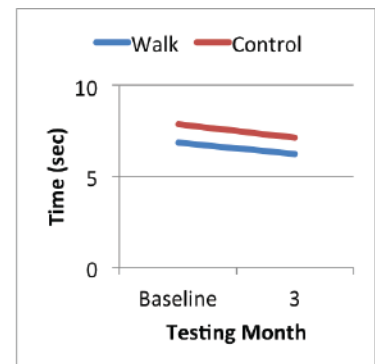


Figure 3. Get-Up-And-Go assessment results.