

Changes in Balance Measures During a Six-Month Senior Citizen Walking Program

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Balance is an important component of senior citizens' overall health and wellness. **PURPOSE:** To assess the effects of a pedometer-based, six-month 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 test batteries at baseline, 3, and 6 months. A follow-up assessment was conducted at 9 months. The assessments included Balance Self-Efficacy Scale (BSE), Single-Leg Balance (SLB), and Get-Up-and-Go (GTAG). Differences between measures 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. Both groups were similar at baseline on BSE, but over the 6-month intervention period, the walking group increased confidence while the control group did not. The walking and control groups differed on the SLB measure across the duration of the study. The walking group participants did not differ on the SLB measure between limbs, while the control group exhibited variability between right and left legs. The groups differed in GTAG in the early phase of the study, but did not differ at the 9-month follow-up. **CONCLUSION:** Participants improved their SLB score by roughly 50% and decreased their GTAG time by 1 to 2 seconds over the course of a 6-month walking program. The current study utilized a small sample size and only one male participant. Future studies will be needed to determine if the effects found in the current study are also present in male participants.

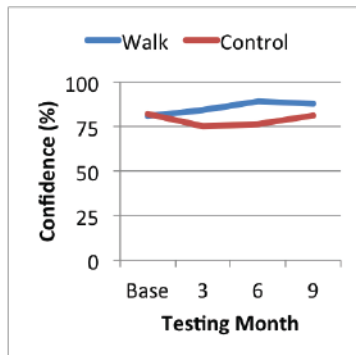


Figure 1. Balance Self-Efficacy Scale results.

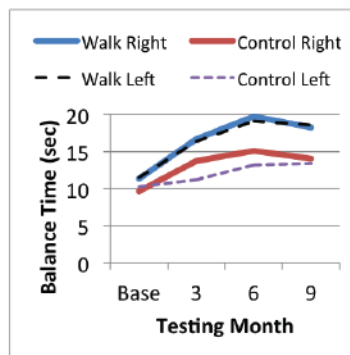


Figure 2. Single-Leg Stance Balance results.

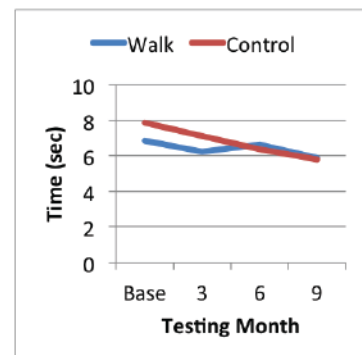


Figure 3. Get-Up-And-Go assessment results.