Assessing the Correlation Between Functional Fitness and Living Arrangements in Older Adults

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As people age, they typically lose the ability to perform basic functional tasks and activities of daily living (ADLs). Physical activity has shown to improve balance, stability, strength and aerobic fitness in older individuals. This will in turn help with maintaining their functional abilities and contribute to independence in their later years. In addition, the early onset of physical activity during young adulthood has been positively correlated with long term health and the prevention of falls in older adults. **PURPOSE:** To explore this topic further we investigated and compared the effects of two different types of site locations on the functional ability of older adults. We also assessed the role of exercise program engagement during the ages of 18-24 on the functional retention rates in older adults who were active during that time period. We predicted that older adults that lived outside of a senior living facility and had engaged in an exercise program from the ages of 18-24 would retain function later in life than those that were in a senior living facility and/or those seniors who were not engaged in an exercise program during early adulthood.

**METHODS:** Fourteen older adults (age: 73.93 ± 6.70 yr) were recruited from three different senior adult facilities. They performed four different function tests; 30-Second Chair Stand Test (30-CST), 4-Stage Balance Test (4-STB), 6-Minute Walk Test (6-WT), and Timed Up and Go (TUG). Current physical activity patterns and physical activity habits during the ages of 18-24 years were assessed via questionnaire. **RESULTS:** Neither site location (30-CST $F(2,11) = 2.40, p > 0.05$, TUG $F(2,11) = 2.95, p > 0.05$, 6-WT $F(2,10) = 0.28, p > 0.05$) or previous exercise history (30-CST $r_s = -0.41, p > 0.05$, TUG $r_s = 0.26, p > 0.05$, 6-WT $r_s = -0.13, p > 0.05$) had a significant impact on current functional ability in the older adult subjects. **CONCLUSION:** There was no evidence for differences in site location and the early onset of exercise and its impact on functional ability in older adults. Additional research that examines adherence rates at a variety of age spans as well as examining the relationship between a wider variety of potential living sites and conditions could yield helpful evidence for geriatric rehabilitation specialists. A larger sample size should be included in future studies.