

# **A DANCE-MOVEMENT THERAPEUTIC INTERVENTION TO IMPROVE BALANCE AND GAIT IN COMMUNITY-BASED FRAIL SENIORS: A PILOT STUDY**

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**Statement of the Problem:** Loss of balance and diminished gait are major fall risk factors in older persons. Literature suggests that physical activity based on dance may improve balance and gait. The aim of this pilot study was to determine if dance movement therapy affects the balance and gait of community-based frail seniors.

**Conceptual Framework:** Lawton and Nemohow's Environmental Press Theory (EPT) was utilized as the framework. EPT states seniors have options, e.g. increasing strength and function, when faced with increased levels of physical press.

**Methodology:** Using a longitudinal design, a Lebed Method dance intervention choreographed to impact balance and gait, was conducted three times a week for six weeks. Functional Reach (FR) and Timed Get Up and Go (TGUG) were measured at baseline, post-intervention, and repeated to estimate the persistence of the effect.

**Subjects:** Following IRB approval, 11 subjects were recruited from the Program of All-inclusive Care for the Elderly (PACE) in St. Louis, Missouri. Inclusion criteria was 1) Mini-Mental State Exam of 23 or above, 2) attending the PACE program Monday, Wednesday, Friday, and 3) able to stand with or without assistance.

**Analysis:** Data collection was completed, entered into SPSS and analyzed. The scores were compared using the non-parametric Wilcoxon signed-rank test. Excel graphs were compared looking for clinical trends. The PI conducted a qualitative interview with the subjects post-intervention.

**Results and Implications:** Dance activities show positive functional trends, suggesting further study will be useful using dance-based therapy to decrease fall risks in older persons.