The Role of Assistive Devices on Worry about Falling and Leisure Self-Efficacy among Older Adults

Carla Ortiz, Josette Orlevitch, Jaesung An, MS., Damien Cavanaugh, MS., CTRS, & Laura L. Payne, Ph.D.,
University of Illinois at Urbana-Champaign

INTRODUCTION

Falls and fall risk significantly contribute to activity restriction, injury, disability, and death in senior adults (Fletcher, Guthrie, Berg, & Hirdes, 2010). In order to curb the dangers associated with falling, many older use assistive devices (e.g., canes, walkers). Although assistive devices are meant to improve balance and mobility, it is not clear if assistive device users feel more confident about their balance.

PURPOSE OF THE STUDY

This study compared users and non-users of assistive devices on perceived worry about falling, balance confidence, perceived health, and leisure self-efficacy.

Research Questions:
Do users and non-users of assistive devices differ significantly on the following measures:
A) worry about falling; B) perceived health; and C) balance confidence;

METHODS

This was an intervention study with a control group and an intervention group. The treatment group consisted of individuals who participated in the 6-week N Balance Program. People who did not engage in N Balance comprised the control group. Participants in both groups engaged in a baseline survey and physical assessment and a follow-up survey and assessment after 6-weeks. Then, they completed follow-up surveys six, 12 and 24-months later. All participants received $10 gift cards for completing each of the five data collection waves. The data for this analysis come from the first wave of data collected.

Participants

A total of 218 people participated in the 2-year study. Mean age was 75.31 years with a range from 35 to 95 years and a standard deviation of 8.6 years. Overall, 75% of the sample was female and 25% was male.

Instruments

At the pre-test or baseline stage, all participants completed a survey on their own that consisted of self-reported measures of balance confidence, health, worry about falling, leisure self-efficacy and perceived health.

The Activities-Specific Balance Confidence (ABC) scale, Powell and Myers's (1995) scale was used to measure participant’s level of confidence in doing the activity without losing balance. This scale consists of 16-items measured in 10-point distribution (1 = not confident at all to 10 = extremely confident). A composite score was calculated with a mean score of all 16 items. Scores ranged from 1.31 to 10, with a mean of 7.2.

Leisure Self-Efficacy scale, Participant’s perception of the ability to do active leisure was measured using a leisure self-efficacy scale which consists of 26-items measured on a 5-point Likert scale. A composite score was calculated and scores ranged from .23 to 4 with a mean of 3.1.

Perceived Worry about Falling, This was measured with a single question: “How worried are you about falling?” (1 = not at all worried to 8 = extremely worried).

Perceived Health, Participant’s perceived health was measured with a statement: “In general, would you say your health is.” (1 = poor to 5 = excellent).

Data Analysis

Based on use of assisted device, participants were divided into two groups “use assisted device” and “not use assisted device.” Once the Activities-Specific Balance Confidence (ABC) scale (16-items) and Leisure Self-Efficacy scale (26-items) were each computed to composite scores, independent-samples T-Test was conducted using SPSS software to find the whether there is statistically significant difference between users and non-users of assistive devices for four variables.

RESULTS

• Older adults who do not use assisted device had significantly higher activity-specific balance confidence (m=8.24) than those who use assisted device (m=5.59).

• Also, older adults who do not use assisted device had significantly higher leisure self-efficacy (i.e., perception of your ability to do active leisure: m=3.40) and perceived health (m=3.68) than those who use assisted device.

• On the other hand, users of assistive devices were significantly more worried about falling (m=4.45) than non-users of assistive devices (m=2.53).

DISCUSSION & IMPLICATIONS

Bateni & Maki (2005) asserted that assistive devices are helpful to maintain balance and improve mobility, but in this study, users of assistive devices reported lower balance confidence and were more worried about falling. Therefore, users of assistive devices could benefit participating in balance training programs. Balance programs can increase one’s balance confidence and decrease fear of falling.