Balance Self-efficacy: Does it affect Psychosocial Well-being in Older Adults?

Mercy Mumba RN, PhD, Ignacio Godinez MBA, MSMR, MIS
University of Texas-Arlington
College of Nursing and Health Innovations
Center for Research and Scholarship

Introduction

There are 40.3 million people in the United States aged 65 and older. This is a drastic change from two decades ago when only 3.1 million Americans were older than 65 years of age. In 2010, over 38% of individuals over the age of 65 reported one or more disabilities including difficulties with walking, climbing stairs, and an inability to do regular errands alone. The older adults' bodies may not always respond in a manner they expect, making them more susceptible to falls and injury. The result is a decrease in balance self-efficacy, which then affects their willingness to participate in exercise and social gatherings. Social isolation subsequently leads to depression and decreased quality of life

Instruments used

Balance Self-efficacy Scale, EquiTest® computerized system (neurocom), Comprehensive Fall Risk Screening Instrument, and the Promis 29.

Methods and Procedures

This study was approved by the IRB at University of Texas at Arlington. A convenience sample of community dwelling older adults was used. Inclusion criteria community dwelling, over 60 years of age, able to read and write, use a computer, and able to bear own weight. According to the Power Analysis required sample size = 64; a total of 78 participants were recruited for the study. Informed consent was obtained from the participants prior to participation in the study, as well as a required physician release form from the participants primary care physician stating that the participant was medically cleared to participate in the exercise program.

Upon consenting to participate, the participants were given their computer log in information. They filled out their demographic information sheet, the Promis 29, Comprehensive Fall Risk Assessment tool, and the Balance Self- efficacy scale. After completing the online questionnaires, participants were taken to the labs where they participated in the senior fitness test and the equilibrium test using the NeuroCom ©. After all the pretesting was completed, participants engaged in a 15-week exercise program that incorporated balance, strength, endurance, and flexibility training. Upon completion of the exercise program, a posttest was administered using the same instruments.

Results

Preliminary results: 78 total participants in the study. Ages ranged from 60 years to 89 years. 74% were female, over 60% had at least a bachelors degree. 89% were Caucasian. Comorbid medical diagnoses such as Arthritis (62%), diabetes (9%), hypertension (14%), thyroid problems (15%),cardiovascular problems (11%), and cancers (21%). 90% of participants use assistive devices, and 50% report falling within last 3 years. 46% use more than 4 prescription medications daily. Balance self-efficacy did not differ based on age, gender, ethnicity, pain interference, low back pain, or educational level. However, depression (p = 0.044), anxiety/fear (p = 0.042), fatigue (p=0.01), and physical function (p=0.0) significantly predicted balance self-efficacy.

Comorbidities incident with patients	
Diabetes	9.60%
High Blood Pressure	15.10%
Neuropathy	4.10%
Thyroid	16.40%
Sleep Disorders	2.70%
Arthritis	37.80%
High Collesterol/Heart Surgery	11.00%
Cancers	20.58%

Discussion & Conclusions

Discussion & Conclusions: Depression and anxiety often go untreated in older adults. However, from this study, they are significantly related to balance self-efficacy. Finding ways to treat depression and anxiety in this population is imperative in order to foster social and community engagement in this population.