CLINICAL USE OF THE NINTENDO WII FOR BALANCE REHABILITATION: A CASE REPORT

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Abstract (Limited to 300 Words)

Background and Purpose: Falls in the elderly population may be due to a number of factors and may pose long-term detrimental effects or contribute to mortality. The purpose of this case report is to describe the non-traditional clinical use of the Nintendo Wii for balance rehabilitation in conjunction with traditional balance interventions for an elderly male patient in order to decrease his risk for falls.

Case Description: The patient was an 83-year-old male with a medical diagnosis of cerebral vascular insult, Alzheimer’s disease and a closed head injury due to a fall secondary to a seizure. His balance was assessed post-hospitalization at a transitional care unit (TCU) and was categorized as high risk for falls. Intervention: The Nintendo Wii was used in conjunction with traditional physical therapy interventions including: therapeutic activity, functional mobility and therapeutic exercise. Three Wii games were chosen to improve the patient’s static and dynamic standing balance. These games included the Balance Bubble and Tilt Table games on the Wii Balance Board and golf. Golf was performed in a variety of standing postures (i.e. tandem).

Outcomes: Following a total of 42 physical therapy treatment sessions over four weeks, 11 of which included using the Nintendo Wii, the patient’s Berg Balance Score (BBS) improved from 32 to 49 out of 56. The patient’s Tinetti Balance Assessment (POMA) score improved from 16 to 24 out of 28, which demonstrates a decrease risk of falls. Upon discharge, the patient was able to return home and complete all activities of daily living (ADL) with supervision from his wife.

Discussion: Despite his Nintendo Wii scores falling into the “unbalanced” and “amateur” categories for the Tilt Table and Balance Bubble games, his balance scores as measured by BBS and POMA showed significant improvement over the four weeks. Further research is needed for the clinical use of the Nintendo Wii as a valid and reliable balance intervention in populations with high risk of falls.