

10-1-2009

WII-FIT FOR BALANCE AND GAIT IN SKILLED NURSING FACILITY: A RETROSPECTIVE STUDY

K. P. Padala

University of Nebraska Medical Center

Nicholas Stergiou

University of Nebraska at Omaha, nstergiou@unomaha.edu

M. A. Bissell

University of Nebraska Medical Center

S. Davis

University of Nebraska Medical Center

T. Malloy

University of Nebraska Medical Center

Follow this and additional works at: <https://digitalcommons.unomaha.edu/biomechanicsarticles>

 Part of the [Biomechanics Commons](#)

Please contact the author at: [https://unomaha.az1.qualtrics.com/jfe/form/](https://unomaha.az1.qualtrics.com/jfe/form/SV_8cchtFmpDyGfBLE)

[SV_8cchtFmpDyGfBLE](https://unomaha.az1.qualtrics.com/jfe/form/SV_8cchtFmpDyGfBLE)

Recommended Citation

Padala, K. P.; Stergiou, Nicholas; Bissell, M. A.; Davis, S.; Malloy, T.; Potter, J.; and Burke, W. J., "WII-FIT FOR BALANCE AND GAIT IN SKILLED NURSING FACILITY: A RETROSPECTIVE STUDY" (2009). *Journal Articles*. 297.

<https://digitalcommons.unomaha.edu/biomechanicsarticles/297>

This Article is brought to you for free and open access by the Department of Biomechanics at DigitalCommons@UNO. It has been accepted for inclusion in Journal Articles by an authorized administrator of DigitalCommons@UNO. For more information, please contact unodigitalcommons@unomaha.edu.

Authors

K. P. Padala, Nicholas Stergiou, M. A. Bissell, S. Davis, T. Malloy, J. Potter, and W. J. Burke

WII-FIT FOR BALANCE AND GAIT IN SKILLED NURSING FACILITY: A RETROSPECTIVE STUDY

K.P. Padala¹,

P. Padala^{1,2},

N. Stergiou^{1,2,3},

M.A. Bissell¹,

S. Davis¹,

T. Malloy¹,

J. Potter¹,

W.J. Burke¹,

1. University of Nebraska Medical Center, Omaha, Nebraska,

2. Veterans Affairs Medical Center, Omaha, Nebraska,

3. University of Nebraska at Omaha, Omaha, Nebraska

Background: Falls in elderly are a major public health problem. Poor balance and gait abnormalities are risk factors for falls. Exercise improves gait and balance in elderly. However, it is difficult to engage patients in exercise programs. Wii-Fit might bridge this gap by providing high level of engagement at an affordable price. Wii-Fit is a Nintendo game used for balance, yoga, aerobics, and strength training. It is a TV based self-directed activity. Virtual trainers talk the user through the activity and track progress while visual and auditory feedback improve engagement. Anecdotal reports suggest improvement in balance and social benefits with Wii-Fit, but no systematic studies are available. Objective: To compare the effect of Wii-Fit augmentation to physical therapy alone in subjects undergoing rehabilitation in skilled nursing facility (SNF) using a retrospective chart review. Methods: 100 charts were reviewed of which seventeen patients were noted to have used Wii-Fit during their rehabilitation. These subjects were matched with seventeen controls who did physical therapy alone. Results: There were no baseline differences between the groups. The mean age was 77.7 years, with 11 females in each group. All the subjects were Caucasians. The average length of stay was 30 days in each group. Mean duration of the Wii-Fit use was 4-weeks. Wii-Fit augmentation group improved significantly in Activities of Daily Living ($p=0.008$), balance ($p=0.0001$), and assistance with gait ($p=0.05$) when compared to the control group. Conclusion: Wii-Fit can be used safely in a SNF, and it may improve balance, gait, and functional status.