Wii-HAB: Using the Wii Video Game System as an Occupational Therapy Intervention with Patients in the Hospital Setting

The Nintendo Wii video game console has become the most widely used game system in rehabilitation facilities across the US. In the past few years the Wii has been used with diverse populations, including children and adults with cerebral palsy, Parkinson's disease, stroke, and gross and fine motor deficits. Literature has shown the Wii being used in hospital, rehabilitation and school settings, all with the similar goals of improving patients' standing balance, strength, coordination and activity tolerance. The unique features of the Wii allow Occupational (OT) and Physical Therapists (PT) to capitalize on their patients' functional abilities in a fun and novel manner. The Wii is currently being utilized by Occupational, Physical, and Recreational Therapists on the Comprehensive Acute Rehabilitation Unit at Thomas Jefferson University Hospital (TJUH) as well as in the acute care setting. On the Blood and Marrow Transplant Unit (BMTU) at TJUH, OTs are using the Wii to benefit patients physically as well as emotionally. This article highlights how the Wii video game system has been utilized to meet the specialized needs of the patient population on the Blood and Marrow Transplant Unit (BMTU) at Thomas Jefferson University Hospital (TJUH) and the initial observations of its benefits.

The Nintendo Wii gaming system consists of controllers with sensors that track acceleration and movement, allowing users to translate their own motion onto the game's characters. For example, when bowling, a player holds a controller in one hand, then swings his or her arm back and releases the ball at the time and speed they want their character to release the ball. This increases the amount of movement required by video game players and provides a physical challenge. Most recently, OTs on the BMTU have begun using the Nintendo Wii video game system to gather patients together for leisure groups. The goals of the group include: increasing strength, endurance, range of motion, and building social relationships and support networks among members that can last beyond their hospital stay. Patients who meet through the group setting are encouraged to carry on their relationship after group by sharing information such as hospital room number and telephone extension. Sharing this information allows patients to use each other as a source of support.

The group was based upon the Rehabilitation Model of Human Performance Models as guidelines, further leveraging advantages of the Wii as a method for psychosocial and physical rehabilitation with patients. Data will continue to be collected from the patient's experience and changes will be made based on feedback and new technological advancements. This small group of two to three patients gathering once a week for an emotional and physical workout has the potential to lead to a much larger support group inside and outside of TJUH’s walls. Using the Rehabilitation and Ecology of Human Performance Models as guidelines, further research could investigate the relationship between participating in Wii groups in the hospital and returning to occupational roles once patients return home. It is our belief that participating in these groups helps patients physically and emotionally prepare for life outside of the hospital.

In the future, OTs on the BMTU will continue to use the Wii as a method for psychosocial and physical rehabilitation with patients. Data will continue to be collected from the patient's experience and changes will be made based on feedback and new technological advancements. This small group of two to three patients gathering once a week for an emotional and physical workout has the potential to lead to a much larger support group inside and outside of TJUH’s walls. Using the Rehabilitation and Ecology of Human Performance Models as guidelines, further research could investigate the relationship between participating in Wii groups in the hospital and returning to occupational roles once patients return home. It is our belief that participating in these groups helps patients physically and emotionally prepare for life outside of the hospital.

REFERENCES