Exergame Grading System

Researchers at the University of South Florida have created a new fitness grading scheme for determining which exergame should be used according to the patient’s needs.

Exergames (such as, Wii Sport and Wii Fit) have been shown to increase physical activity among adults with chronic diseases (such as, Parkinson’s disease, stroke, multiple sclerosis, cerebral palsy and lupus). There are many benefits from using these exergames for the promotion of physical activity in these adults; however, the patients with these chronic diseases prefer to engage in physical activities that are personalized to their fitness level. The challenge in using these exergames to promote physical activity lies in the appropriate selection of the exergames to match each patient’s fitness level.

USF researchers have created a valid and reliable Exergame Grading Scheme that makes it possible to develop a personalized physical activity program using exergames for each individual. A fitness test measuring a specific physical fitness attribute, like the hand grip test using a dynamometer for upper extremity muscular strength, provides a parameter to choose exergames based on their grading scores in the Exergame Grading Scheme.

If exergame selection can meet an individual’s fitness parameter, it is possible to improve their confidence to complete tasks of physical activity, and then they would continuously engage in physical activity. Successfully completing the tasks assigned has been demonstrated to be an important determinant to initiate and maintain physical activity behavior in patients. Therefore, the Exergame Grading Scheme which offers the chance to choose the right exergame, based on the individual’s fitness level, is an innovative strategy that has great potential to improve physical activity behavior among patients.

ADVANTAGES:

- Helps select the right exergame for fitness level
- Potential to improve physical activity in individuals with chronic conditions

Promote Physical Activity in Individuals with Chronic Diseases

![Exergame Grading Scheme](image)

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