ORAL PRESENTATIONS

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The Validity of Newly Developed Portable Wheelchair Treadmill (PARAFiTGo) among Individuals with Spinal Cord Injury

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ABSTRACT

Background and Objectives: Individuals with spinal cord injury (SCI) face low physical fitness due to barriers like expensive equipment and limited access to training facilities. A new portable and affordable wheelchair treadmill prototype (PARAFiTGo) that can replicate wheelchair propulsion has been developed. However, PARAFiTGo lacks a validity study matching it with SCI consumers. This study aimed to determine the predisposition level of the PARAFiTGo among individuals with SCI. **Methods:** Surveys were conducted with ten participants, content experts and health professionals to suggest the matching level of PARAFiTGo with SCI consumers. A valid questionnaire called 'Assistive Technologies Device Predisposition Assessment (ATD-PA) was used for the study purpose. One-sample t-test was employed in data analysis. **Results:** The mean score given by the health professionals for the wheelchair treadmill was 116 (out of a total score of 156). Statistical analysis revealed that the scores varied minimally among the evaluators, indicating significant match and high predisposition level of PARAFiTGo with SCI individuals $p<.001$. **Conclusion:** The study confirms the significant match and high predisposition level of the PARAFiTGo among individuals with SCI. This validates its potential as an effective tool for enhancing physical fitness in SCI population. The results from this study will support the findings of positive impacts of PARAFiTGo innovations and should be promoted for improvement of physical activity, fitness, and function among individuals with SCI.

Keywords: PARAFiTGo; Spinal Cord Injury; Wheelchair Treadmill; Physical Activity; Physical Fitness; Cardiorespiratory fitness

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