E-Poster

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Acceptability of an Overground Gait Trainer With Partial Body Weight Support in a Clinical Environment

Topic: Assistive Products

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BACKGROUND

Improving walking capacity is of utmost importance in pediatric rehabilitation field to enhance children's quality of life. Treadmill walking with partial bodyweight support is recognized as the most effective walking training method for ambulant children with poor lower limb muscle strength. However, partial body weight support treadmill training requires a specific setup, which limits the widespread adoption of this rehabilitation technology, particularly in centers located far from major urban areas. Recently, an innovative lightweight four-wheeled overground gait trainer, incorporating a partial body weight support system, has been developed (Levity®, Ora Medical, Montreal, Canada). This device provides adjustable body weight support and has the advantage of being easily portable, making it suitable for the practical needs of smaller rehabilitation centers. The aim of this study is to evaluate the clinical acceptability of this device in clinical rehabilitation environment.

METHODS

Physiotherapists were recruited in 9 rehabilitation centers across the province of Quebec (Canada). Among their caseload, physiotherapist identified the patients with which the rehabilitation objectives were to improve walking capacities, gait initiation, or lower limb weight bearing. They were free to use the gait trainer device as they wished in their clinical practice for four months. After each use, they had to fill-in a form to report why they used the gait trainer with this patient, in which exercise the child was involved, if the targeted objective of the rehabilitation session was met, and if they plan to use the device again with this patient. After a four-month period the physiotherapists who used the gait trainer device at least one time completed the Quebec user evaluation of satisfaction with assistive technology 2.0 (QUEST 2.0) to evaluate the device acceptability.

RESULTS

For now, 10 physiotherapists were included. The gait trainer was used with 17 children for a total of 83 rehabilitation sessions. Mean QUEST score for each item was as follow, dimension 4.0/5, weight 4.4/5, ease of adjustment 3.9/5, safety 4.2/5, durability 4.1/5, ease of use 4.2/5, comfort 4.1/5, effectiveness 4.0/5. The targeted objectives of the rehabilitation session were reach in 83% of cases.

CONCLUSION

The gait trainer Levity (Ora Medical) seems to have the potential to provide a solution for over ground walking training with partial body weight support in clinical environment. Based on the QUEST 2 score this device seems to respond to clinicians' requirement.

Statement of Disclosures

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