E-Poster

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Post-Stroke Gait With C-Brace®: User Experience and Satisfaction

Topic: Prosthetics and Orthotics

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BACKGROUND

The benefits of knee-ankle-foot orthoses (KAFOs) have been investigated in persons with lower limb weakness. Compared to traditional KAFO and stance control orthoses, the microprocessor swing and stance control knee-ankle-foot orthosis (C-Brace) can assist more natural gait and might be beneficial to stroke patients with various levels of lower limb motor impairment. The effects of wearing a C-Brace for locomotor training and mobility in persons with chronic stroke are unclear. This study aims to investigate the user's experience, satisfaction, and potential functional changes of walking with the C-Brace® in persons with chronic stroke.

METHODS

This study is a single-group prospective study. Fourteen participants with chronic stroke enrolled and completed the study. During the study period, the participants attended 12 locomotor training sessions utilizing the C-Brace, then continued using the C-Brace in their daily routine in their home and community environments for 4-6 weeks.

RESULTS

Most participants expressed positive experience and perceived benefits of using C-Brace while participants appear to be more likely to experience a training effect rather than a brace effect from wearing it. Participants with moderate to severe gait impairment post-stroke may be most likely to experience the benefits of using the C-Brace temporarily for therapy compared to patients with mild or severe gait impairments. Participants who experienced either training or brace effects had significantly less frustration, lower social burden, higher function in ambulation, and higher function in well-being when wearing the C-Brace.

CONCLUSION

Individuals with chronic stroke reported high satisfaction and comfort with the devices, particularly respondents. The findings indicate that those with moderate to severe gait impairments may benefit from using the C-Brace as a temporary training tool, highlighting the need for further research on the mechanisms behind gait improvements.

Statement of Disclosures

None

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