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Abstract

PURPOSE:

To evaluate a walking device, the David Hart Walker Orthosis (HW), that was designed to allow children with severe cerebral palsy to ambulate with hands-free support.

METHOD:

A pre-/post-test prospective one-group study evaluated outcomes three years after receiving the HW. Physical therapy assessment, parent interview and satisfaction questionnaire provided details on outcomes.

RESULTS:

The HW remained the sole walking device for 13 of 20 children at 3 years. Six of seven children who discontinued use were over 12-years-old and had outgrown its maximum size. Twelve of 13 children who still used the HW were assessed. GMFM Stand and Walk Dimension mean score increases of about 3% points for the 1-3-year follow-up were not significant (P > 0.16). Timed walk scores were unchanged. Steering ability gains were demonstrated on a directional mobility assessment (from 12.0 to 27.9% [P= 0.02]). Despite its eventual height limitations, parents considered HW use to be worthwhile (mean satisfaction = 8.2/10).

CONCLUSIONS:

Sixty-five percent of the children continued to use the HW as their sole walking device, and demonstrated improved ability overall to manoeuvre it during functional ambulation. The primary reason for discontinuation was inability to accommodate taller children.