Gait and participation outcomes in adults with cerebral palsy: A series of case studies using mixed methods

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Abstract

Background: There is a paucity of information on long-term outcomes of adults with cerebral palsy (CP) who received orthopedic interventions in childhood. Clinical effectiveness research requires assessment of outcomes that account for personal and environmental factors that may mediate the effects of treatment, in addition to body structures & function, activity, and participation.

Objective/hypothesis: The purpose of this study is to provide a descriptive analysis of characteristics associated with gait and participation outcomes in a series of case studies of adults with CP.

Methods: Participants had follow up gait analysis and clinical evaluation in adulthood and assessment of outcomes with the FIM® instrument, the SF-36® Health survey, the Canadian Occupational Performance Measure, and semi-structured questions.

Results: Twenty-two out of 26 participants (mean age = 25 years; GMFCS level I (n = 9); II (n = 3); III (n = 11); IV (n = 3)) maintained or improved childhood gait abilities, with levels of participation in society similar to age matched peers. Higher level of severity and personal choices impacted gait abilities in the four who declined. Majority of participants lost range of motion in hip flexion and knee extension, had pain, reported a fitness program, and increased in weight status. Personal factors and environmental factors played a role in both gait and participation outcomes.

Conclusion: Promotion of fitness activities and social advocacy are warranted for adults with CP. Clinical effectiveness research of long-term impact of orthopedic interventions should account for treatment effects on body structures & function, activity, participation, and modifying effects of personal, and environmental factors. © 2013 Elsevier Inc. All rights reserved.

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Clinical effectiveness research is concerned with the question “what works best, for whom, and when?” Effectiveness research is concerned with the clinical effects of treatment (i.e., improved ROM, gait abilities, participation, quality of life, self perception) and with identifying characteristics that predict which intervention would be most successful in an individual patient. For rehabilitation professionals who work with ambulatory children with cerebral palsy (CP), important questions that have yet to be answered are 1) what are the clinical and patient relevant

This article reports on a subset of 11 participants who had multilevel surgery, pre-operative, 1 year post-operative, and greater than 5 year follow up evaluations and a subset of 12 participants who had motion analysis evaluations in adolescence and then in young adulthood with no surgery in between. The initial evaluations reported in the enclosed article are different beginning points that those reported in the article mentioned above. Additionally, the article mentioned above does not contain the information on participation and activity outcomes.

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