APTA Combined Sections Meeting 2011 in New Orleans, LA, February 9-12, 2011: POSTER

Current pediatric physical therapy interventions for young children with cerebral palsy and relationship to gross motor and self-care abilities: A pilot study.

L. M. Jeffries, School of Physical Therapy, Langston University, Langston, OK; S. W. McCoy, Rehabilitation Medicine, University of Washington, Seattle, WA.

PURPOSE: The purpose was to describe pediatric physical therapy (PT) interventions and activities used with young children with cerebral palsy (CP) and explore the associations of these interventions with change in the children's gross motor and self-care abilities across one year.

NUMBER OF SUBJECTS: Eighteen physical therapists (mean age = 41.72, SD = 10.33) participated in this study. They collected data on 22 children with CP (mean age = 36.3 months, SD = 13.5); Gross Motor Function Classification System (GMFCS) levels I: 6; II: 3; III: 1; IV: 4; V: 8, who participated in a multi-site study entitled: Move & PLAY.

MATERIALS/METHODS: The Physical Therapy Interventions for Pediatrics (PTIP) manual and form were used to document the PT interventions and activities. Prior to data collection the PTs obtained \geq 70% agreement on the PTIP form based on video analysis. The PTs then completed the PTIP each time they saw the child or performed activities related to the child. Child data collected in the Move & PLAY study included age, GMFCS level, the Gross Motor Function Measure (GMFM), and the Self-Care: Activities of Daily Living (SC-ADL) subscale of the Child Engagement in Daily Life Measure. PTIP data were collected for a median of 9 months (min-max = 3-12 months). For analysis data were extrapolated to reflect 12 months of services.

RESULTS: Therapists (88%) reported the PTIP took less than 10 minutes to complete. PT services were found to have a 12 month frequency median = 33 visits/child (range = 69), median visits/month = 2.8 (range = 5.8), and median minutes/session = 52 (range = 30). Therapists spent a median of minutes/year (range) of 143 (2135) in contextualized activities, 285 (4470) with the care givers involved in the session, and 188 (935) on documentation. The top three activities (median minutes/yr; range) used were sitting (125; 1780); standing/pre-gait (115; 645); and transitions/transfers (85; 825). The most frequent interventions (% time used/year; range) were motor learning (89%; 100%); functional strengthening (80%; 42%); postural awareness (74%; 64%); and balance reactive (67%; 45%). Exploratory correlations and regression analyses suggest significant relationships between GMFCS levels and SC-ADL outcomes (r = -0.71) and the average duration (visits/month) with GMFM (r² = .33) and SC-ADL (r² = .32) outcomes. SC-ADL improvement was also significantly correlated with the average duration of session/month (r = 0.59; r² = .43).

CONCLUSIONS: This pilot study demonstrated the successful use of the PTIP system as a means of documenting PT activities and interventions. The PTIP form was easy to complete yielding rich descriptive and exploratory correlation results.

CLINICAL RELEVANCE: Consistent documentation of PT activities and interventions and child outcomes could produce helpful information to guide provision of clinical PT services and provide insight for future research.