

Communication Function Classification System (CFCS) in pre-school children with cerebral palsy (CP).

Material and Methods: Two hundred and thirty-four children (aged 2–7y) with a primary diagnosis of CP, receiving services from two rehabilitation centres and one hospital in Latvia, were surveyed for this descriptive study. The child's physician noted the type of CP. Children's GMFCS and CFCS levels were classified based on parents and professional (physiotherapist and speech therapist respectively) consensus decision during their clinic visits. The relationship between the two systems was assessed using Spearman's correlation coefficients (rs).

Results: Correlation between the functional assessments was strong. GMFCS levels were correlated with CFCS levels (rs = 0.66, $p < 0.01$). The strongest correlations between functional assessments was found in children with bilateral spastic CP (rs = 0.64, $p < 0.01$). There were no statistically significant correlations between GMFCS and CFCS levels in children with unilateral CP, dyskinetic CP and ataxic CP.

Conclusions: Although ability to walk and communicate is not functionally related, data revealed some relationship between functional assessments in these areas. These findings may be important in establishing functional profiles for children with CP. However our results need to be interpreted with caution. Future research by enlarging sample size, especially in the group of children presented with dyskinetic and ataxic CP is needed.

P017-95638

Measuring manual ability changes with ABILHAND-Kids during intensive training for children with cerebral palsy: a responsiveness study

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Background: ABILHAND-Kids is a Rasch-built questionnaire that measures manual ability in children with cerebral palsy (CP) and is increasingly used to quantify changes during neurorehabilitation, notably in intensive training. Psychometric properties of the scale, except responsiveness to change, have been established.

Objective: To examine the responsiveness of ABILHAND-Kids during intensive training (CIMT, HABIT, HABIT-ILE) and in the follow-up period.

Methods: Ninety-eight children with unilateral CP underwent 3 assessments: the first at baseline, before intensive training, the second after 2 to 3 weeks of intensive motor skill learning training, and the third 4 to 6 months later, at follow-up.

Depending on the age of the children, the Jebsen Taylor Test of Hand Function, the Assisting Hand Assessment and the self-care part of the Pediatric Evaluation of Disability Inventory were concomitantly performed.

Results: The responsiveness was analyzed using global, group, and individual approaches. The global approach showed significant improvements in scores during intensive training ($p < 0.001$) but not in follow-up ($p = 0.168$). Group analysis showed that changes detected by the ABILHAND-Kids scale are categorized as large for the younger children (6–12y, $n = 52$) and small for the teenagers (13–19y, $n = 46$). The ABILHAND-Kids scale was shown as more sensitive to changes than other tools concomitantly used in both groups.

Conclusions: The ABILHAND-Kids questionnaire exhibited responsiveness in detecting changes, even when slight, after intensive training in children with unilateral CP. Therefore, this scale is recommended to assess the functional status of children with unilateral CP in clinical trials.

P018-96711

Assessment of gross motor development of infants based on video recordings made by parents

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Background/purpose: Frequent assessments of gross motor development of infants at risk is an established procedure in neonatal follow up clinics. Assessments based on video recordings made by parents could be a relevant innovation to monitor gross motor development with low burden for parents and infants. This study is part of the GODIVA project (Gross motor Development of Infants using home-Video registration with the Alberta Infant Motor Scale (AIMS)).

Methods: In 49 infants (6wks–19mo) the equivalence was studied of two scores using 1) a video made by parents and 2) simultaneous observation on site by a pediatric physiotherapist with the AIMS. A tutorial video and a checklist were developed to guide parents in making the video. Afterwards a questionnaire and interviews were used to get information about parents' experiences.

Results: The ICC-agreement between both methods was .99 with a SEM of 1.4. According to 94% of the parents recording their infants movement repertoire was easy. Being able to choose their own time and staying at home for the assessment was reported by parents as being comfortable.

Conclusions: Assessing the AIMS based on video recordings is well comparable to assessment by observation on site. The video-method is a promising application that can be used in follow-up clinics with lower burden for parents and infants. Time and distance become less important barriers. Moreover, the video is a lasting objectification of the motor performance of an infant and could be used for other purposes too (www.godiva.hu.nl).