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Purpose of the study

To get insight in limitations in functional activities of the upper extremity of young adults with CP and to assess the relations with patient characteristics and with restrictions in participation.

Methods

The current study was based on a cross-sectional analysis of the baseline and follow-up measurements in 103 and 83 participants of a cohort study in the South West Netherlands, respectively.

Table 1. Characteristics of the participants.

Gender (N=103)	Male	62
	Female	41
Age (years) (N=103)		17.9 (1.5)
Educational level (N=103)	Low	40
	Moderate	35
	High	26
CP limb distribution (N=103)	Diplegia	26
	Hemiplegia	50
	Quadriplegia	26
GMFCS (N=103)	I	78
	II	7
	III-V	18
MACS (N=83)	I	67
	II	10
	III-V	6

Measurements

Functional activities were assessed by:

- Melbourne assessment
- Abilhand Questionnaire (version adult persons with chronic stroke) (raw sum score 0-46)

Participation was assessed by:

- Life Habits Questionnaire

Analysis

- differences of functional activities between the subgroups, based on the limb distribution of the spastic paresis were determined by independent sample t-test
- Pearson's correlation coefficients were determined
- multivariate models for prediction of restrictions of participation were assessed by stepwise multiple linear regression analysis

Results

Table 2. Correlations (Pearson's R) between characteristics of participants and functional activities of the upper extremity

	Age	Limb	Educ	GMFCS	MACS	MA	AQ
Age	-	0.10	0.25	0.09	0.08	0.06	0.13
Limb		-	0.28	0.62	0.42	0.49	0.49
Educ			-	0.26	0.29	0.09	0.28
GMFCS				-	0.55	0.39	0.61
MACS					-	0.45	0.76
MA						-	0.53
AQ							-

Limb= limb distribution; Educ= educational level; MA= Melbourne assessment; AQ = Abilhand Questionnaire

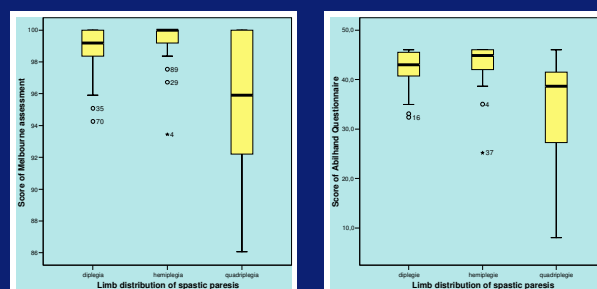


Figure 1. Relationship between limb distribution of the spastic paresis and the scores on the Melbourne assessment and the scores of the Abilhand Questionnaire.

The regression models indicate that limitations in functional activities of the upper extremity are an important determinant for restrictions in participation, besides gross motor function and educational level.

Conclusion

- limitations in functional activities of the upper extremity are present in young adults with CP, especially in quadriplegic participants
- functional activities of the upper extremity are an important predictor for restrictions in participation

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