The Mini-EDACS among preschool-aged Dutch children with cerebral palsy: reliability, construct validity and applicability

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Introduction

Prevalence

Cerebral palsy (CP) affects 2-3 out of 10,000 live births (1).

Challenges

Children with CP face problems with dysphagia, feeding problems, malnutrition and pulmonary infections, associated with increased mortality (2,3).

Classification

The **EDACS** (Eating and Drinking Ability Classification System) classifies eating and drinking among children with CP aged 3-21 years (4).

The **Mini-EDACS** was recently developed (in the UK) to classify children with CP in the age of 18-36 months (5).

Objectives

1) Translate the Mini-EDACS into Dutch.
2) Assess the psychometric properties and applicability of the Mini-EDACS among preschool-aged children with CP in the Netherlands.

Methods

First phase:

The Mini-EDACS was translated into Dutch using the FACIT translation methodology (6).

Second phase:

Inter-rater reliability

- Parents recorded videos of three usual mealtimes.
- Speech and Language Therapists (SLTs) and parents classified the Mini-EDACS, based on the videos.
- Inter-rater reliability of the Mini-EDACS level was assessed between two SLTs and between SLTs and parents.

Construct validity

- Established by hypothesis testing regarding the correlation between Mini-EDACS level and two feeding scales: the Pediatric Eating Assessment tool (PEDI-EAT-10) and the Montreal Childrens' Hospital Feeding Scale (MCH-FS).

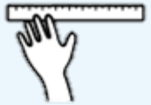
Applicability

- Both SLTs and parents answered four questions.

Results

Participants: Forty-eight children with CP in the age of 18-36 months.

Inter-rater reliability: SLTs showed almost perfect agreement (k_w:0.83); parents and SLT's had substantial agreement (k_w:0.77 & k_w:0.70).



Construct validity: The correlation between Mini-EDACS and PEDI-EAT-10 was t=0.66, p<0.001, slightly lower than hypothesized. The correlation between Mini-EDACS and MCH-FS was t=0.52, p <0.001, as hypothesized.

Applicability was found to be good.

Conclusion

The Dutch version of the Mini-EDACS showed sufficient inter-rater reliability, construct validity and applicability to enable its use in daily practice in preschoolers with CP.

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References: [1] Wimalasundera *et al.* (2016); [2] Arvedson (2013); [3] Blair *et al.* (2019); [4] Sellers *et al.* (2014); [5] Sellers *et al.* (2022); [6] Eremenco *et al.* (2005).