

## Anna Müller Grocholski - Preis am Symposium 2017 der SACD - Abstract

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**Kategorie** (ankreuzen) **Forschungsarbeit** ☒ **Projekt/Konzept** ☐

### Title

The Eating and Drinking Ability Classification System: Concurrent validity and reliability in children with cerebral palsy

### Background

Recently, existing classification systems to describe functional abilities in children with cerebral palsy (CP) were complemented with the Eating and Drinking Ability Classification System (EDACS), because many children with CP experience difficulties with eating and drinking. The EDACS describes the functional eating and drinking abilities of children with CP aged 3 years and older, using 5 distinct levels. It refers to key features of 'safety' (aspiration and choking) and 'efficiency' (amount of food lost and time taken to eat). The EDACS also provides a three-level ordinal rating scale to describe the degree of assistance required (Independent; Requires Assistance; Totally Dependent). The EDACS is the first standardized rating scale describing eating and drinking ability in children with CP and has the potential to improve prevalence estimations of limitations of eating and drinking function.

As there is no equivalent classification system in German and the concurrent validity of the original EDACS is limited and even lacking for the EDACS level of assistance, this study aimed to translate the original version of the EDACS into German and to determine its concurrent validity and reliability in children and adolescents with CP.

### Method

The translation procedure was as follows: (1) Translation into German by two independent Speech and Language Therapists (SaLTs). (2) Creation of a consensus version by a doctor of child and adolescent medicine and a SaLT. (3) Examination by two other independent SaLTs. (4) Back-translation into English by a translation company. (5) Endorsement by the author of the original version.

After the translation procedure, we applied the German language version in 52 participants with CP aged between 3 and 17 years undergoing rehabilitation at the Rehabilitation Center of the University Children's Hospital Zurich.

To calculate the content validity of the EDACS we correlated (Kendalls tau) the EDACS levels with the 'Bogenhausener Dysphagiescore' (BODS), a well-established scale that assesses the severity of eating and drinking problems of different etiology, and the EDACS level of assistance with the Manual Ability Classification Scale (MACS) and the item 'eating' of the Functional Independence Measure for children (WeeFIM).

To prove reliability of the German version of the EDACS we quantified the interrater reliability between SaLTs and between SaLTs and parents. SaLTs and parents used their knowledge of the everyday eating and drinking ability of the participant.

### Results

Through an extensive and diligent translation process, the resulting German version of EDACS is comprehensible for all German-speaking countries and at the same time presents a strong convergence with the original language version.

The EDACS levels correlated high with the BODS (0.79) and EDACS level of assistance correlated high with the MACS (0.73) and WeeFIM eating item (-0.80). Interrater reliability proved almost perfect between SaLTs (EDACS: Kappa = 0.94, EDACS level of assistance: Kappa = 0.89) and SaLTs and parents (EDACS: Kappa = 0.82, EDACS level of assistance: Kappa = 0.89).

**Conclusion**

In conclusion, the study showed high concurrent validity for the EDACS level and EDACS level of assistance in a group of children and adolescents with CP. The study also demonstrated an almost perfect interrater reliability for the German version of the EDACS level and its level of assistance.

We suggest that therapists and researchers should employ the EDACS to improve clinical and research practice. We further recommend German-speaking cerebral palsy surveillance registers to include the German version of EDACS to improve our knowledge on the prevalence of eating and drinking difficulties in children with CP.

**What this study adds**

- German version of EDACS is highly valid and reliable
- EDACS correlates well with a dysphagia score
- EDACS level of assistance proves valid