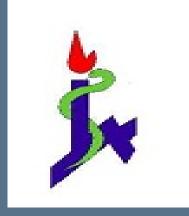
CONSISTENCY OF PSYCHOMETRIC PROPERTIES OF THE CHILD AND ADOLESCENT SCALE OF PARTICIPATION (CASP) IN A NATIONAL SAMPLE (USA) OF CHILDREN WITH TBI ACROSS 3-YEARS

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Introduction

- **Participation in activities affects children's health and quality** of life¹.
- **Participation of children with traumatic brain injury (TBI) found** to be restricted in comparison to typically-developing peers² due to impairments and the environmental barriers³.
- There is a need for reliable and valid instruments to monitor recovery over time.
- **❖** The CASP⁴ assesses participation of children and adolescents with TBI in home, school and community settings.
- **Prior studies report on the psychometric properties of the** $CASP^{3-5}$.

This study examines the convergent validity, internal consistency and factor structure of the CASP across a 3-year period⁶.

Methods

- > Longitudinal prospective cohort study⁷
- > 926 children ages 0-18 years (TBI = 729; Arm injury = 197) -10 hospitals

Parents Version

After injury

Pre-injury functioning - 3 – 12 - 24 - 36 months

Following trauma

Child and Adolescent Scale of Participation (CASP)⁴

Participation of children and adolescents with TBI and other acquired brain injuries in home, school and community settings

Pediatric Quality of Life Inventory (PedsQL)⁸

Health-related quality of life in healthy children and adolescents

Adaptive Behavior Assessment Scale (2nd ed.) (ABAS-II)⁹

Adaptive behavior and skills of individuals who are school-aged

References

¹WHO (2001). ICF. Geneva: Author; ²Anaby et al. (2012). Predictors of change in participation rates following acquired brain injury: Results of a longitudinal study. Developmental Medicine and Child Neurology, 54, 339-346; ³Bedell (2009). Further validation of the child and adolescent scale of participation. Developmental Neurorehabilitation, 12(5), 342-351; 4Bedell (2004). Developing a follow-up survey focused on participation of children and youth with acquired brain injuries after inpatient rehabilitation. NeuroRehabilitation, 19, 191-205; 5McDougall et al., (2013). The youth report version of the child and adolescence scale of participation (CASP): assessment of psychometric properties and comparison with parent report. Child: care, health and development, 39, 4, 512-522; ⁶Golos & Bedell (2016). Psychometric properties of the Child and Adolescent Scale of Participation (CASP) across a 3- years period for children and youth with traumatic brain injury. NeuroRehabilitiaion (Accepted); 7 Rivara, et al., (2012). Persistence of disability 24 to 36 months after pediatric traumatic brain injury: A cohort study. Journal of Neurotrauma, 29, 1-6; ⁸Varni et al. (2009). The pediatric quality of life inventory: Measuring pediatric health-related quality of life from the Perspective of children and their parents. Pediatric Clinics of North America, 56, 843-863; 9Harrison et al.(2003). Adaptive Behavior Assessment System, 2nd ed. San Antonio: Psychological Corp.

Results

Sample

926 children ages 0-18 (TBI - 78.7%: mild - 66.5%, moderate - 10.4%, severe – 1.8%; Arm injuries - 21.3%) Majority: White (63.3%); male (64.6%); English speakers (92.2 %)

Convergent validity

Correlations between CASP -> PedsQL and ABAS-II scores

Pearson correlation coefficients moderate to high at all time periods CASP & PedsQL: r = 0.504 to 0.602; CASP & ABAS-II: r = 0.488 to 0.650, p < 0.01

A pattern of gradual increase in correlations over time.

Internal consistency of the CASP

High internal consistency of the CASP and its sub-sections $(\alpha = 0.900 - 0.956)$

A pattern of gradual increase in α over time

***** Factor analysis

Clearer four factor solutions at 3, 12 and 24 months resembling the four CASP sub-sections: Home participation; School participation; Community participation; and Home and community living activities (67 - 69 % of the variance was explained).

Factor solution less clear-cut for pre-injury and at 36 months

Conclusions

Evidence of convergent validity (with PedsQL and ABAS-II)

Gradual increase in correlations & internal consistency over time **NEW FINDINGS**

- **Similar to previous studies**^{3,5} the results provide additional evidence regarding internal structural validity of the CASP, but the factor solutions were different.
- **Prudence should be taken when considering use of factor scores** can also create composite scores with items most relevant to research / practice needs and information goals.
- **Results contribute to current psychometric evidence of the CASP** and support its use in assessing participation of children and adolescent with TBI over time.

Parents' greater familiarity with their child's participation



Child's participation being more stable over time.

- This evidence is important to consider when selecting participation measures for use in research and practice.
- **Limitations:** different factors might have affected the results (differences associated with each hospitals, level of severity, missing data, reporter, using both English and Spanish versions).

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