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Background & Purpose

- Participation in activities that provide a sense of accomplishment & enjoyment during childhood & youth helps to foster positive outcomes in adulthood¹⁻⁴
- Participation is an indicator of overall health & well-being and a key rehabilitation outcome¹⁻¹⁰
- Children & youth with disabilities are often restricted in their participation³⁻¹⁰
- Child & Adolescent Scale of Participation (CASP) identified as a key measure of children's participation⁶⁻⁸
- CASP originally designed as parent-report as part of Child & Family Follow-up Survey (CFFS) to assess outcomes & needs of children & youth with acquired brain injuries & their families.^{4,5} Now used separate from CFFS & for other children & youth
- CASP has prior evidence of test-retest reliability (ICC = 0.94), internal consistency ($\alpha = 0.96$) & construct validity^{4,5}
- Prior factor analyses⁴ indicated items loaded on 3 factors with 63% of variance explained:
 - Social, leisure & communication (50%)**
 - Advanced daily activities (7%)**
 - Basic daily activities & mobility (6%)**
- Because the original CASP was parent-report, a youth-report version was developed to obtain youth perspectives
- PURPOSE OF THIS STUDY:**
 - To examine psychometric properties of the Youth-report CASP
 - To further validate the Parent-report CASP
 - To compare findings from the Youth-report CASP & Parent-report CASP

Methods

- Baseline data examined from longitudinal study on predictors of quality of life of youth (ages 11-17) with disabilities from 8 children's rehabilitation centers in Ontario, Canada^{9,10}
- Data examined from the CASP parent-report & new youth-report. The two versions have the same content & format. Youth or parents compare participation to same age youth
- 20 items divided into 4 subsections: 1) *Home*, 2) *School* & 3) *Community Participation*, & 4) *Home & Community Living*
- Items rated on a 4-point scale (1=*unable*, 2=*very limited*, 3=*somewhat limited*, 4=*age expected/full participation*)
- Data analyses: Independent t-tests, Analysis of Variance, Intra-class correlation, Cronbach's alpha (α) & exploratory factor analyses

Participants (n= 409 youth with disabilities)

- Youth mean age was **14 years** (SD = 2.2); **55%** were male
- 35%** had cerebral palsy, **14%** acquired brain injury, **11%** communication disorders / cleft lip or palate, **8%** spina bifida, **7%** autism spectrum disorder, **6%** developmental delay, **4%** amputation, and **15%** another condition
- Parents' mean age was **45 years** (SD = 6.5); **88%** were female
- English spoken in 90% of families' homes**, French in 2%, other languages in 8%

RESULTS

Group Differences in Youth CASP Scores

- Significant differences** in CASP scores existed for **disability groups** ($F = 4.33$; $p < 0.0001$), but NOT for age ($F = 0.50$; $p < 0.81$) or sex ($t = 1.56$; $p < 0.12$)
 - Youth with cerebral palsy had significantly lower scores than those with amputation ($p < 0.01$)
 - Youth with autism had significantly lower scores than those with communication disorders/cleft lip or palate ($p < 0.01$) & those with amputation ($p < 0.001$)

Internal Structure (factor analyses): CASP Youth Report & Parent Report

Three conceptually similar factors identified for both CASP versions contributing **44% variance in youth report & 65% in parent report:**

- Social, leisure & communication (17% & 22% respectively)**
- Advanced daily activities (14% & 17% respectively)**
- Basic daily activities & mobility (13% & 26% respectively)**

*Some items shared variance on more than one factor in both versions

Internal Consistency: CASP Scale & Factor Subscales

CASP Scale & Factor Subscales	Youth	Parent
• CASP	0.87 *	0.95 *
• Social, leisure & communication	0.80 [†]	0.90 *
• Advanced daily activities	0.67 [‡]	0.86 *
• Basic daily activities & mobility	0.74 [‡]	0.89 *

Subscale scores derived from factor analyses

Internal consistency (Cronbach's α): high*, moderately high[†], moderate[‡]

Comparative Analyses: CASP Total & Factor Subscale Scores

CASP Total & Subscale Scores	Youth Mean (SD)	Parent Mean (SD)	t *	ICC**
• CASP Total	69.5 (8.2)	63.5 (12.8)	10.93	0.70
• Social, leisure & communication	27.6 (4.1)	25.9 (5.2)	7.26	0.65
• Advanced daily activities	21.1 (2.8)	18.6 (4.5)	12.52	0.59
• Basic daily activities & mobility	20.7 (3.0)	19.2 (4.3)	9.00	0.74

*Independent t-tests show significant differences between all youth-report & parent-report CASP scores ($p < 0.0001$)

**Intra-class Correlation Coefficients (moderately high correlations between all youth-report & parent-report CASP scores)

Discussion

- Evidence of internal consistency & scale structure for CASP Youth-report & confirmatory evidence for Parent-report.
- Moderate internal consistency for youth-report advanced & basic daily activities subscales possibly due to shared variance of some items on these two subscales.
- The 3-factor scale solution for Youth-report was virtually the same as parent-report in this & prior study.⁴
- Results from this study reflect more equal distribution of percent of variance explained among the 3 factors than in prior research.
- Scores from both versions were moderately to highly correlated & also significantly different suggesting each provides understanding of youth's participation.¹¹
- Youth report could be used with parent report when comparisons are helpful, or separately when only youth reports are of interest.
- Consistent with other results that show youth with chronic conditions report higher scores than parents in measures that reflect their health-related quality of life.¹²⁻¹⁴
- Youth might have reported higher CASP scores due to youth: a) having more accurate views of what they do across multiple environments; b) participating more than their parents realize; &/or c) idealizing the extent to which they participate.
- Youth report CASP appears to discriminate among groups of youth with different conditions, similar to prior research with the Parent-report CASP.⁴
- Further psychometric testing needed** (larger, more diverse samples; test-retest reliability; confirmation of 3 factor scale solution; responsiveness).

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For more information about the CASP: <http://sites.tufts.edu/garybedell/measurement-tools/>