Youth Report Version of the Child & Adolescent Scale of Participation (CASP): Psychometric properties & comparisons with the parent report version

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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 adulthood.
- Participation is an indicator of overall health & well-being and is a key rehabilitation outcome.
- Children & youth with disabilities are often restricted in their participation.
- The Child & Adolescent Scale of Participation (CASP) is often identified as a key measure of children’s participation.

Methods

- Baseline data were examined from a large longitudinal study investigating predictors of changes in quality of life of youth (ages 11-17) with disabilities from eight children’s rehabilitation centers in Ontario, Canada.
- Data from the CASP parent-report & new youth-report versions were examined in this study. The two CASP versions have the same content & format. Youth or parents compare their own or their child’s participation to same age youth.
- 20 items divided into 4 subscales: 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: Comparative / Correlation (Independent t-tests, Analysis of Variance, Intra-class correlation), internal consistency (Cronbach’s α) & scale structure (exploratory factor analyses).

Participants (n=409 youth with disabilities)

- 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, & 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%, others 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 > 0.01) 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 an amputation (p < 0.0001).

Factor Analyses: CASP Youth Report & Parent Report

- Three conceptually similar factors were identified for both CASP versions contributing 44% of the variance in the youth report & 65% in the parent report:
  1) social & leisure participation/communication (17% & 22% respectively)
  2) advanced daily activities (14% & 17% respectively)
  3) basic daily activities/mobility (13% & 26% respectively)

Internal Consistency: CASP Total & Factor Subscale Scores

<table>
<thead>
<tr>
<th>CASP Total &amp; Subscale Scores</th>
<th>Youth</th>
<th>Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth report CASP total score</td>
<td>0.87†</td>
<td>0.95</td>
</tr>
<tr>
<td>Social, leisure &amp; communication</td>
<td>0.80‡</td>
<td>0.90*</td>
</tr>
<tr>
<td>Advanced daily activities</td>
<td>0.67†</td>
<td>0.86*</td>
</tr>
<tr>
<td>Basic daily activities &amp; mobility</td>
<td>0.74†</td>
<td>0.89*</td>
</tr>
</tbody>
</table>

Comparative Analyses: CASP Total & Subscale Scores

<table>
<thead>
<tr>
<th>CASP Total &amp; Subscale Scores</th>
<th>Youth Mean (SD)</th>
<th>Parent Mean (SD)</th>
<th>t*</th>
<th>ICC**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth report CASP total score</td>
<td>69.5 (8.2)</td>
<td>63.5 (12.8)</td>
<td>10.93</td>
<td>0.70</td>
</tr>
<tr>
<td>Social, leisure &amp; communication</td>
<td>27.6 (4.1)</td>
<td>25.9 (5.2)</td>
<td>7.26</td>
<td>0.65</td>
</tr>
<tr>
<td>Advanced daily activities</td>
<td>21.1 (2.8)</td>
<td>18.6 (4.5)</td>
<td>12.52</td>
<td>0.59</td>
</tr>
<tr>
<td>Basic daily activities &amp; mobility</td>
<td>20.7 (3.0)</td>
<td>19.2 (4.3)</td>
<td>9.00</td>
<td>0.74</td>
</tr>
</tbody>
</table>

Discussion

- Results provide evidence of internal consistency and scale structure for the youth report & parent report versions.
- The moderate internal consistency for the youth-report advanced & basic daily activities subscales might have been due to shared variance among these two subscales.
- The 3-factor scale solution for the CASP youth-report was virtually the same as the parent-report in this study & previously reported scale structure.
- Results from this study reflect a more equal distribution of the percent of variance explained among the 3 factors than in prior research - possibly due to differences in research protocols & samples, e.g., the largest subgroup of children in this study had CP & the largest subgroup in prior research had traumatic brain injury.
- All CASP youth report & parent report scores were moderately highly correlated & also significantly different suggesting that each report assesses a different and distinct aspect of youth’s participation.
- Youth report could be used in conjunction with parent report when comparisons might be helpful, or separately when only youth reports are of interest.
- Results reflect others’ studies’ results that youth with chronic conditions / disabilities report higher scores related to quality of life measures.
- Youth might have reported higher CASP scores due to: a) having more accurate views of what they do across multiple environments; b) participating more than their parents realize; & c) idealizing the extent to which they participate.
- Similar to prior research with the CASP parent-report, the youth report appears to discriminate among groups of youth with different disabilities.
- Further psychometric testing of the youth-report CASP using larger, more diverse samples is needed & should include assessment of test-retest reliability & convergent/divergent validity & confirm the 3 factor scale solution. Studies to assess responsiveness to change over time for both the youth and parent report are currently underway.

References