



Childhood Participation: Differences by Setting and Diagnosis

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Background

Participation or “involvement in a life situation” can be limited in children with disabilities.¹

Participation by specific diagnoses

- Children with acquired brain injury (ABI) have reduced participation in home, school and community activities.^{2,3}
- Children with CP participate less at school.⁴ have decreased range and frequency of participation in out of school activities.
- In children with CP ↑ motor function is associated with ↑ participation.

Purpose of Study

To explore if participation patterns vary among children with different diagnoses or across different environmental domains.

Measurement Tool

- Child and Adolescent Scale of Participation (CASP). Parent rates child’s participation compared to age expectations on a 4-point scale (1=Unable, 2=Very limited, 3=Somewhat limited, 4=Age-expected).
- 20 Items total in four separate domains:
 - Home participation
 - Neighbourhood & Community participation
 - School participation
 - Home and Community Living activities (HCLA)
- CASP has good reliability and validity.⁵

Data Collection Methods

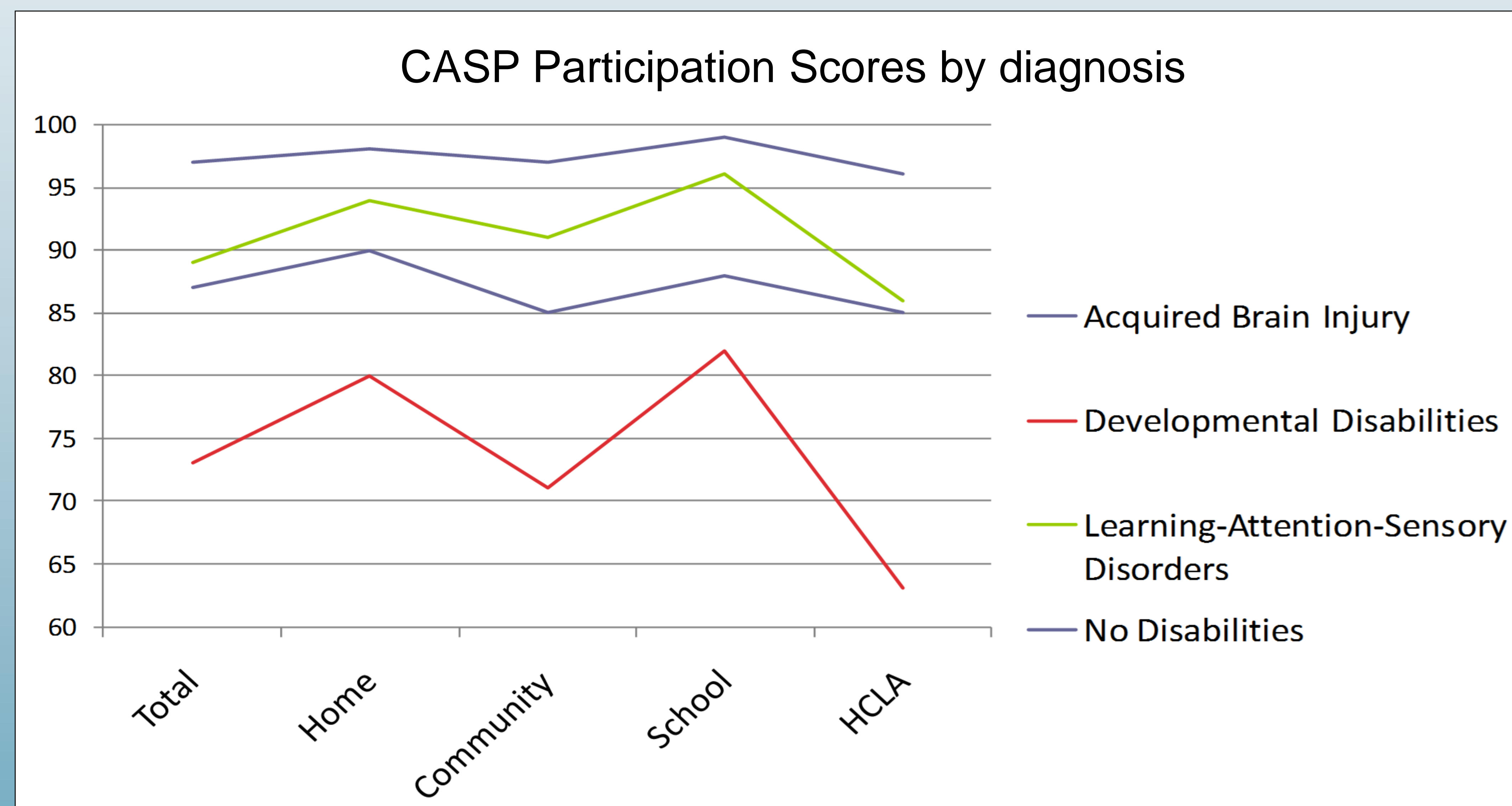
- De-identified data collected from colleagues in USA, Canada, Australia and Israel
- Survey was either professionally-administered or self-completed by parents / guardians
- Data collected either with CASP only or as part of the larger Child and Family Follow-up Survey⁵
- Cross-sectional exploratory design

Participants (n=363)

- Children with disabilities (n=311); Children without disabilities (n=52)
- Diagnosis: Acquired Brain Injury (n=215), Developmental Disabilities (n=51) and Learning-Attention-Sensory Disorders (n=15)
- Ethnicity: White (n=153), Black (n=19), Hispanic (n=6), Asian (n=1), Others (n=7)
- Gender: Male (n=178), Female (n=153)
- Age: 6-12yrs (n=105), 13-18yrs (n=165), and above 18yrs (n=63)

Data Analyses

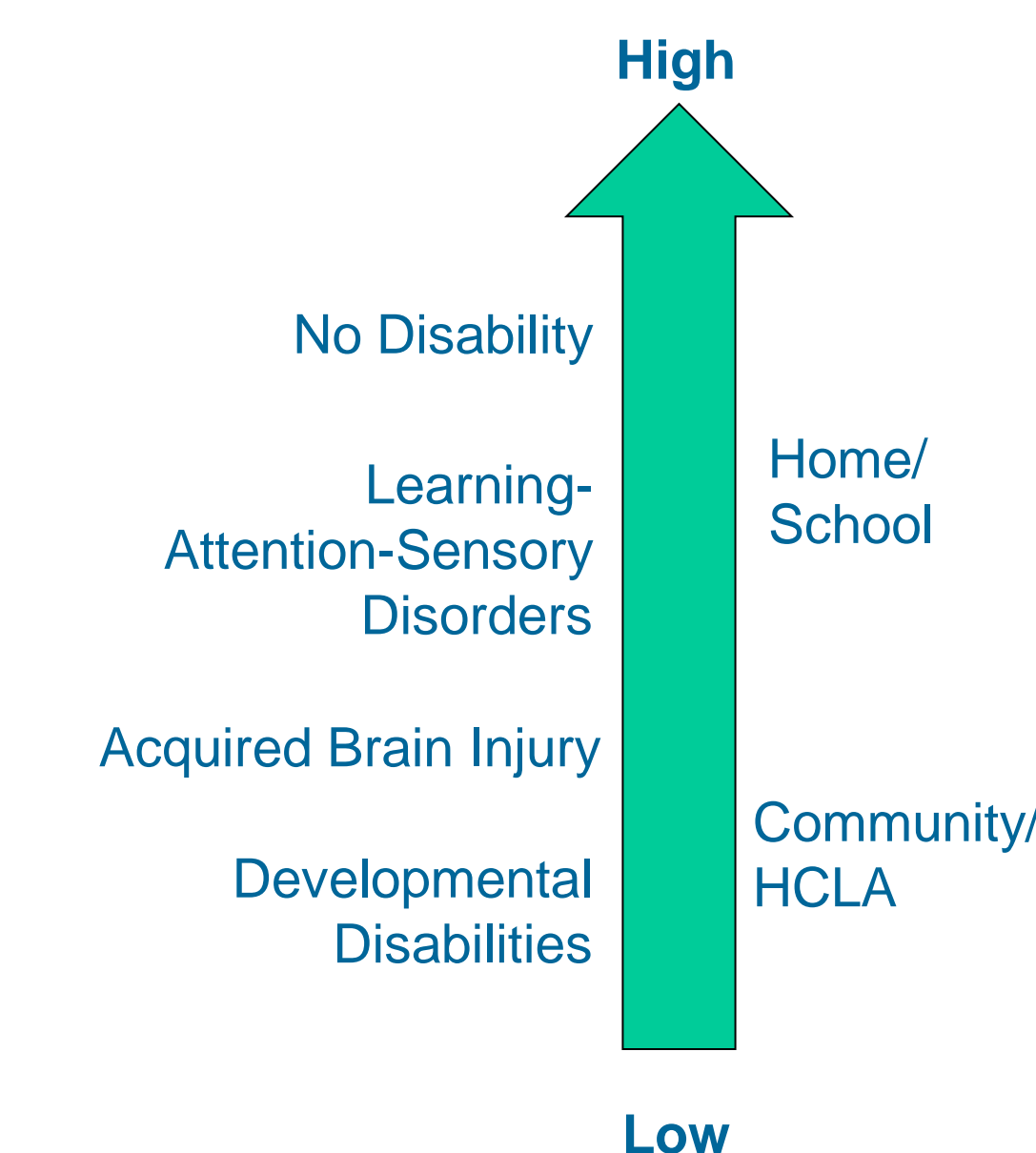
- ANOVAs to examine differences in summary scores among four diagnoses.
- ANCOVA to control for the effect of age only for school participation score
- Kruskal Wallis to examine differences in summary scores due to negatively skewed distribution. Results were comparable to ANOVA results at p<0.001 and participation trends were also the same.
- Scheffe test to examine post-hoc differences in scores among the diagnoses.



CATEGORY \ DOMAIN	No Disability (ND)	Acquired Brain Injury (ABI)	Learning/ Attention/ Sensory Disorders (LASD)	Developmental Disabilities (DD)	ANOVA
Home	98 (4)	90 (12)	94 (7)	80 (13)	F(3,325)=20.66, p<0.001
School	99 (3)	88 (14)	96 (6)	83 (12)	F(3,303)=18.19, p<0.001
Community	97 (6)	85 (17)	91 (13)	71 (19)	F(3,311)=22.01, p<0.001
HCLA	96 (8)	85 (19)	86 (14)	63 (18)	F(3,191)=15.68, p<0.001
Total	97 (4)	87 (14)	89 (10)	73 (13)	F(3,332)=32.45, p<0.001

Key Results

Participation patterns vary by diagnosis and environment



Discussion

- Results suggest a pattern of participation by diagnosis, children with developmental disabilities score lower across all domains.
- Results also suggest that participation varies by environment, children with all diagnoses score higher within home & school domains.
- Parent’s expectations and awareness may play a role in how they report participation e.g. parents of children with DD may be more aware of their child’s developmental level from assessments.
- Familiar environment, routine and caregivers may facilitate participation at school and home.
- Study results could help inform the clinician’s expectations of participation of children with different diagnoses, when compared to age expected levels. This could assist in treatment planning and realistic goal setting.

Limitations

- Sample not fully representative of population
- Some ceiling effects found with CASP
- Some data collection variation and missing data
- CASP was initially designed for children with ABI and to assess recovery towards premorbid levels of participation.

Future Research

- Further research with a larger and more diverse sample.
- Further analysis of participation patterns by geographic area, socio-economic status and more narrowly defined diagnoses.
- Further research to explore whether diagnosis is associated with participation by item type (e.g. physical items, cognitive items).
- Further research to inform design of services and interventions that maximize participation of children with disabilities.

References

- 1 World Health Organization (2001). *International Classification of Functioning, Disability and Health (ICF)*. Geneva, Switzerland: Author.
- 2 Galvin, J., Froude, H. E., & McAleer, J. (2010). Children’s participation in home, school and community life after acquired brain injury. *Australian Occupational Therapy Journal*, 57, 118-126.
- 3 Schenker, R., Coster, W., & Parush, S. (2005). Participation and activity performance of students with cerebral palsy within the school environment. *Disability and Rehabilitation*, 27(10), 539-552.
- 4 Engel-Yeger, B., Jarus, T., Anaby, D., & Law, M. (2009). Differences in patterns of participation between youths with cerebral palsy and typically developing peers. *American Journal of Occupational Therapy*, 63, 96-104.
- 5 Bedell, G. (2009). Further validation of the Child and Adolescent Scale of Participation (CASP). *Developmental Neurorehabilitation*, 12(5), 342-351.