

Community Participation & Environmental Supports & Barriers of School-Age Children with & without Disabilities

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Background & Purpose

- Participation in activities that provide a sense of accomplishment & enjoyment during childhood helps to foster positive outcomes in adulthood¹⁻⁴
- Participation is an indicator of overall health & well-being and is a key rehabilitation outcome¹⁻⁴
- School-age children with disabilities are often restricted in their participation particularly when compared to children without disabilities AND are often more restricted in the community as compared to home & school settings⁵⁻⁷
- Community participation is influenced both positively & negatively by features of the physical, social & attitudinal environment (e.g., extent of accessibility, financial & community resources; parent support & strategies)⁵⁻⁹
- The purpose of this study was to:
 - Examine patterns of community participation & environmental supports & barriers of school-age children with a broad range of disabilities AND
 - Draw comparisons with school-age children without disabilities.

The Participation & Environment Measure for Children & Youth (PEM-CY)⁶⁻⁸

- Is a parent-report measure that examines participation & environmental supports & barriers of children ages 5-17 across 3 settings (home, school & community). Parents are asked:
 - How frequently child participates in activity (Never = 0 to Daily = 7)
 - How involved child is when participating (minimally = 1 to very = 5)
 - Whether parent desires change in activity (yes/no; if yes, parent asked where change is desired: frequency, involvement, variety)
 - Whether specific features of the environment help or make it harder for child to participate (not an issue; usually helps; sometime helps/makes harder; usually makes harder)
 - Whether resources are available or adequate to support child's participation (not needed; usually, yes; sometimes yes/no; usually no)
- Only PEM-CY community items were examined in this study. Prior research indicated that community scores had moderate to excellent test-retest reliability & internal consistency.⁶ Also, community summary scores of children with & without disabilities were significantly different in expected directions.^{5,6}

Participants (n= 576 school-age children)

- Data collected via online survey in the USA (37%) and Canada (63%)
- Most respondents were mothers, had high level of education (graduated from college) and lived in Northeast USA & Southern Ontario, Canada.
- Children were ages 5 -17: With disabilities (n=282); Without disabilities (n=294); Most children were White, non-Hispanic (81%), Black (3%), South Asian (2.5%) and Hispanic (1%) or "other" (1%)
- Children with disabilities had a broad range of disabilities and types and severity of impairments (physical, cognitive, psychosocial)
- More children without disabilities were younger than 12 years (p < .002) and lived in households with incomes of more than \$80,000 (p < .001)

Differences in Community Participation of School-Age Children

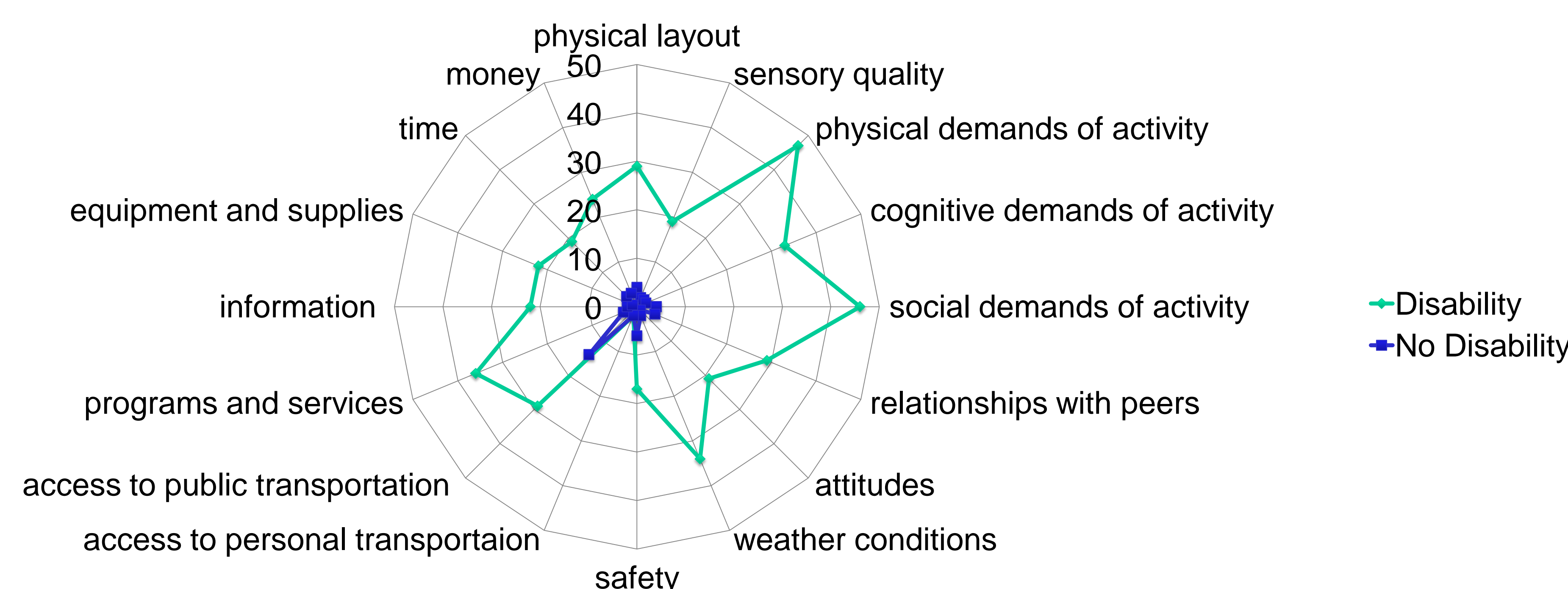
Participation Items	Frequency ^a			Involvement ^a			Desires Change ^b		
	With disability M (SD)	Without disability M (SD)	p (n ² _p)	With disability M (SD)	Without Disability M (SD)	p (n ² _p)	With disability n (%)	Without disability n (%)	p
1. Neighborhood outings	4.89 (1.40)	5.34 (0.99)	0.001 (0.03)	3.61 (1.22)	4.19 (0.84)	0.001 (0.07)	131 (56%)	54 (21%)	0.001
2. Community events	2.84 (1.44)	3.29 (1.51)	0.003 (0.02)	3.44 (1.29)	4.19 (0.93)	0.001 (0.09)	172 (73%)	90 (36%)	0.001
3. Organized physical activity	4.64 (1.63)	5.38 (1.42)	0.001 (0.06)	3.87 (1.29)	4.39 (0.88)	0.001 (0.06)	162 (69%)	97 (39%)	0.001
4. Unstructured physical activities	4.46 (1.85)	5.41 (1.42)	0.001 (0.06)	3.42 (1.26)	4.24 (0.87)	0.001 (0.10)	181 (78%)	137 (55%)	0.001
5. Classes & lessons	4.43 (1.53)	4.43 (1.71)	0.163 (0.00)	3.92 (0.94)	4.16 (1.06)	0.021 (0.01)	165 (71%)	130 (52%)	0.001
6. Organizations, clubs, leadership	3.92 (1.45)	3.87 (1.54)	0.832 (0.00)	3.63 (1.04)	4.01 (1.0)	0.002 (0.01)	162 (69%)	114 (46%)	0.001
7. Religious or spiritual	3.64 (1.60)	4.17 (1.60)	0.025 (0.04)	2.91 (1.28)	3.17 (1.18)	0.166 (0.01)	111 (48%)	99 (40%)	0.087
8. Getting together with other children	3.88 (1.75)	4.96 (1.61)	0.001 (0.08)	3.77 (1.13)	4.45 (0.80)	0.001 (0.09)	177 (77%)	86 (35%)	0.001
9. Working	3.86 (1.87)	3.76 (1.76)	0.416 (0.00)	3.74 (1.40)	3.68 (1.09)	0.001 (0.00)	89 (39%)	80 (34%)	0.239
10. Overnight visits or trips	2.31 (1.17)	2.61 (1.30)	0.001 (0.03)	4.11 (0.95)	4.45 (0.77)	0.001 (0.03)	120 (52%)	53 (22%)	0.001

• Based on analysis of covariance adjusting for age category & income category ^a or chi square analysis ^b
 • Bonferroni adjustment of significance level was set at p < 0.005
 • n2p = Partial eta squares: Effect sizes (small = .01 to .05; moderate = .06 to .13; large ≥ .14) specific to disability status

Summary & Discussion

- Results suggest that greater efforts are needed to reduce the large group disparities noted in community participation and environmental impact.
- Children with disabilities had significantly lower mean participation frequency than children without disabilities in 6 of 10 activities when adjusting for age & income category (particularly for unstructured & organized physical activity & getting together with other children).
- Children with disabilities also had significantly lower mean involvement scores in 8 of 10 activities when adjusting for age & income category (particularly for unstructured physical activity, getting together with other children & community events). Differences were less attributed to disability for some of the structured activities (work, classes/lessons, organizations), as shown by negligible effect sizes. Thus, greater resources & opportunities might be needed for all school-age children to participate in structured activities given the importance of these activities to positive development.¹⁻⁵
- An encouraging result was that children with disabilities were at least moderately involved in activities in which they participated (except religious/spiritual activities). Measuring level of involvement may afford new ways to understand and promote participation because the focus is less on how often they participate and more on the quality of their participation.
- Significantly more parents of children with disabilities desired change in their child's participation & desired most change in unstructured physical activities & getting together with other children, i.e., the same two areas with the largest group differences in participation frequency & involvement.
- Significantly more barriers reported for children with disabilities particularly in activity demands. Modification of activity demands is a focus of occupational therapy intervention and strategies reported by parents of children with disabilities.^{5,7,9} Further research is needed to examine interventions to promote community participation through modification of activity demands &/or educating others to do this effectively.
- More environmental supports reported for children without disabilities. The largest significant group differences were for finances, programs / services and information (*results not shown*).
- Results cannot be generalized given lack of sample diversity (race, ethnicity, income/education levels, geographic location) & exclusion of those without internet access & who could not read/understand English.

Differences in Parent Reported Environmental Barriers (%)



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