

1. BACKGROUND

- Environmental factors have a significant impact on the participation of children and youth with and without disabilities.^{1,2}
- Previous studies indicate that children with disabilities encounter challenges to participation due to impairments, activity demands, and environmental barriers.^{1,3-7}
- There is limited research that has examined the connections between various environmental factors (supports and barriers) that affect participation of children across home, school & community settings.^{1,2,4,5}
- There is limited research that has examined specific environmental factors that affect children with disabilities as compared to children without disabilities across home, school & community settings.^{1,4,5}

2. PURPOSE

- To describe and compare the environmental factors affecting participation of children with and without disabilities in home, school, and community settings.

3. RESEARCH METHODS

- Data that were already collected to develop the web-based version of the Participation & Environment Measure for Children & Youth (PEM-CY)^{5,6} were analyzed in this study.
- The PEM-CY is a new parent-report measure that examines children's participation and environmental factors that influence participation in home, school and community.
- Items that addressed the degree of support or hindrance of environment factors were analyzed.
- These questions can be responded to as “not an issue”, “usually helps”, “sometimes helps sometimes makes harder”, and “usually makes harder.” Only results reflecting “usually helps” and “usually makes harder” are reported.
- Frequency descriptive statistics & Chi-Square analyses were used to compare the degree and difference to which environmental factors reportedly influenced children with and without disabilities across settings.

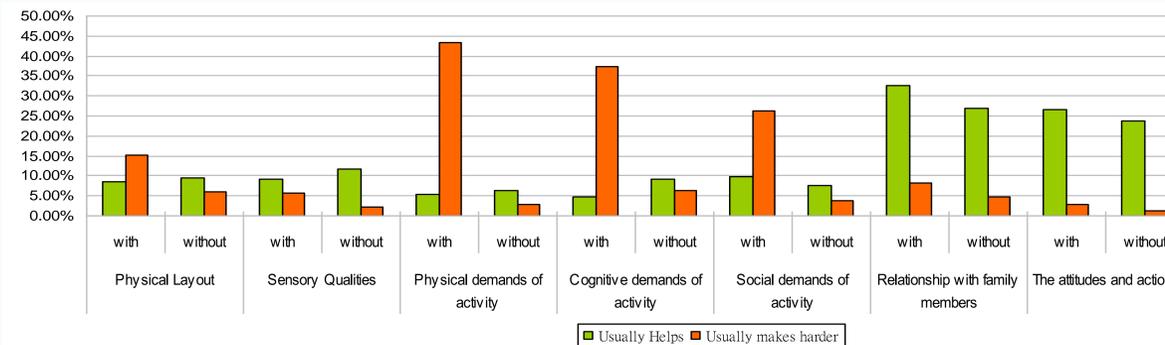
4. SAMPLE CHARACTERISTICS

Demographic data (n=576)					
Disability	Without	294 (51%)	Race/ Ethnicity	Caucasian	467 (81%)
	With	282 (49%)		African	19 (3%)
Gender	Male	311 (54%)	South Asian	15 (2%)	
	Female	265 (46%)	Latino/Hispanic	10 (2%)	
Age	5-17 year-old (M =11.16, SD= 3.08)		Responder's Education	High school or less	28 (5%)
Nation	USA	213 (37%)		Some college or training	79 (14%)
	Canada	363 (63%)		College degree (Undergrad/Grad)	468 (81%)
Location	Urban	259 (45%)	Family Income	< 40,000	65 (11%)
	Suburb	190 (33%)		40,000-80,000	137 (24%)
	Other	127 (22%)		> 80,000	354 (62%)

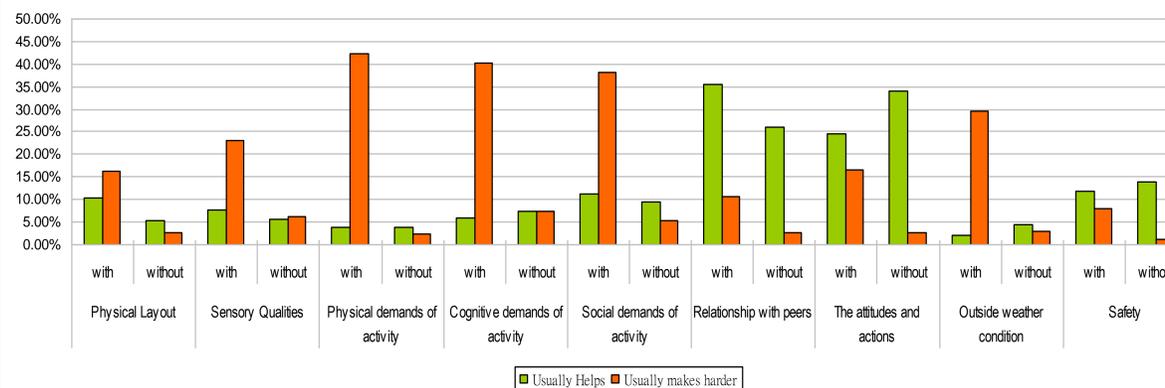
Percents (%) rounded to nearest whole numbers. Some numbers do not add up to 100% due to missing data.

5. RESULTS

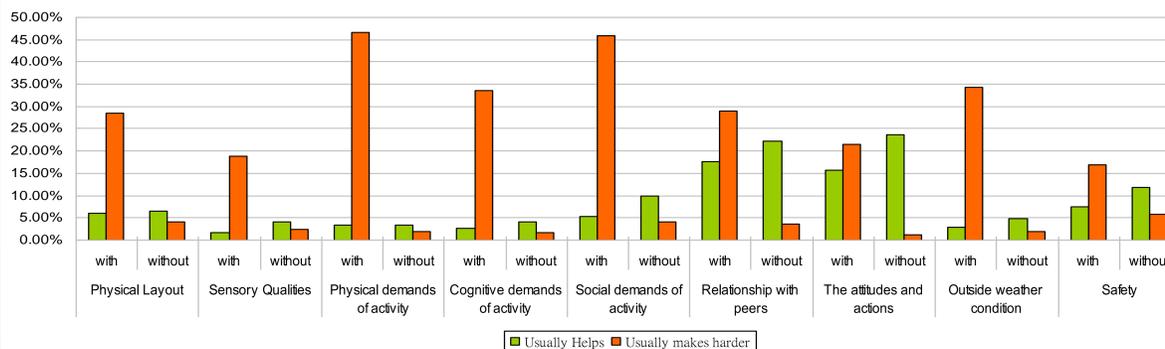
Home



School



Community



Summary of Findings

- There were significant ($p < 0.05$) differences in all environmental factors between children with and without disabilities.
- Children with disabilities had significantly less supports and greater barriers to participation than children without disabilities.
- The community setting posed the greatest challenges and the home setting was more supportive to children with disabilities.
- Activity demands were the most frequently reported barriers for children with disabilities in all three contexts.
- Relationships and attitudes/actions were the most frequently reported supports for both children with and without disabilities in all three contexts; however, these factors also were reported much more as barriers for children with disabilities particularly in the community.
- Outside weather conditions also was often reported as a barrier to participation of children with disabilities in outdoor contexts.

6. DISCUSSION & IMPLICATIONS

- Results were consistent with results from related studies.
- Children with disabilities had significantly more barriers and less supports than children without disabilities.^{1,4}
- Social support from peers was often reported as a key facilitator of participation in the school and community settings.^{2,4,7}
- Activity demands were the most frequently reported barriers for children with disabilities in all settings which is consistent with evidence that participation is a multidimensional concept that involves interaction of the person, environment and activity.^{1,2}
- More environmental barriers outside of the home and more supports within the home may reflect the degree to which parents are or perceive they are able to control environmental factors in these settings.²
- Greater environmental barriers in the community may reflect a lack of training, technical assistance, and understanding of and communication with others about the needs of children with disabilities.^{1,3,7}
- While positive attitude is an important facilitator, it must be accompanied by policy and institutional changes to support the participation of children with disabilities.^{2,3}
- Occupational therapy practitioners play a significant role in promoting meaningful participation of children and youth and can cultivate an awareness of the potency of environmental factors and strategies to address them (e.g., modifying activity demands and other features of the physical and social environment, exploiting supports, collaborating with families).
- The study results can not be generalized to all populations given the lack of sample diversity in terms of race/ethnicity, income/educational level, and geographic/location. Thus, further study with a more diverse sample is needed.

SELECTED REFERENCES

1. Bedell, G., Khetani, M.A., Cousins, M., Coster, W., & Law, M. (2011). Parent perspectives to inform development of measures of children's participation and environment. *Archives of Physical Medicine and Rehabilitation*, 92, 765-73.
2. Law, M., Petrenchik, T., King, G., & Hurley, P. (2007). Perceived environmental barriers to recreational, community, and school participation for children and youth with physical disabilities. *Archives of Physical Medicine & Rehabilitation*, 88(12), 1636-42.
3. Lawlor, K., Mihaylov, S., Welsh, B., Jarvis, S., & Colver, A. (2006). A qualitative study of the physical, social and attitudinal environments influencing the participation of children with cerebral palsy in northeast England. *Pediatric Rehabilitation*, 9(3), 219-228.
4. Eriksson, L., Welander, J., Granlund, M. (2007). Participation in everyday school activities for children with and without disabilities. *Journal of Developmental and Physical Disabilities*, 19, 485-502.
5. Coster, W., Bedell, G., Law, M., Khetani, M., Teplicky, R., Liljenquist, K., Gleason, K., & Kao, Y. (in press). Psychometric evaluation of the Participation and Environment Measure for Children and Youth (PEM-CY). *Developmental Medicine & Child Neurology*.
6. Coster, W., & Law, M., Bedell, G., Khetani, M., Cousins, M., Teplicky, R. (in press). Development of the Participation and Environment Measure for Children and Youth (PEM-CY): Conceptual basis. *Disability and Rehabilitation*.
7. Heah, T., Case, T., McGuire, B., & Law, M. (2007). Successful participation: The lived experience among children with disabilities. *Canadian Journal of Occupational Therapy*, 74(1), 38-47.

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