

Background

- Social participation is linked to overall life satisfaction, mental and emotional health status, and disease prevention.
- Children with disabilities have lower community participation than typically developing children, especially children with spinal cord injuries (SCI). About 62 percent of children with SCI report not participating in sports, clubs, or other youth groups after injury.
- Social participation does not necessarily coordinate with injury severity and level in children and adolescents with SCI. Other possible factors include physical and social environment. That being said, associations between pediatrics with SCI's social participation and factors such as race, ethnicity, and socio-economic status have not been well researched
- Pediatric Measures of Participation (PMoP) Computerized Adaptive Tests (CATs): developed to address relevancy and accuracy issues in previous tools that measure social participation in pediatrics with SCI
 - Includes four surveys that uses an algorithm to present or filter questions based on participants' age, injury, and previous answers
- Conceptual Model of Participation (figure 1)- developed based on focus groups of pediatric with SCI and parents. Model depicts facts that may influence rate of social participation in pediatrics with SCI. Participation occurs on a continuum ranging from participation "less than I want/ Less than my friends" to "as much as I want/ as much as my friends".

Purpose and Objectives:

- Investigate and identify possible predictors (specifically race and ethnicity, SES, and injury characteristics) of children and adolescents with SCI's participation in community-based activities
- Provide further evidence to validate model of participation

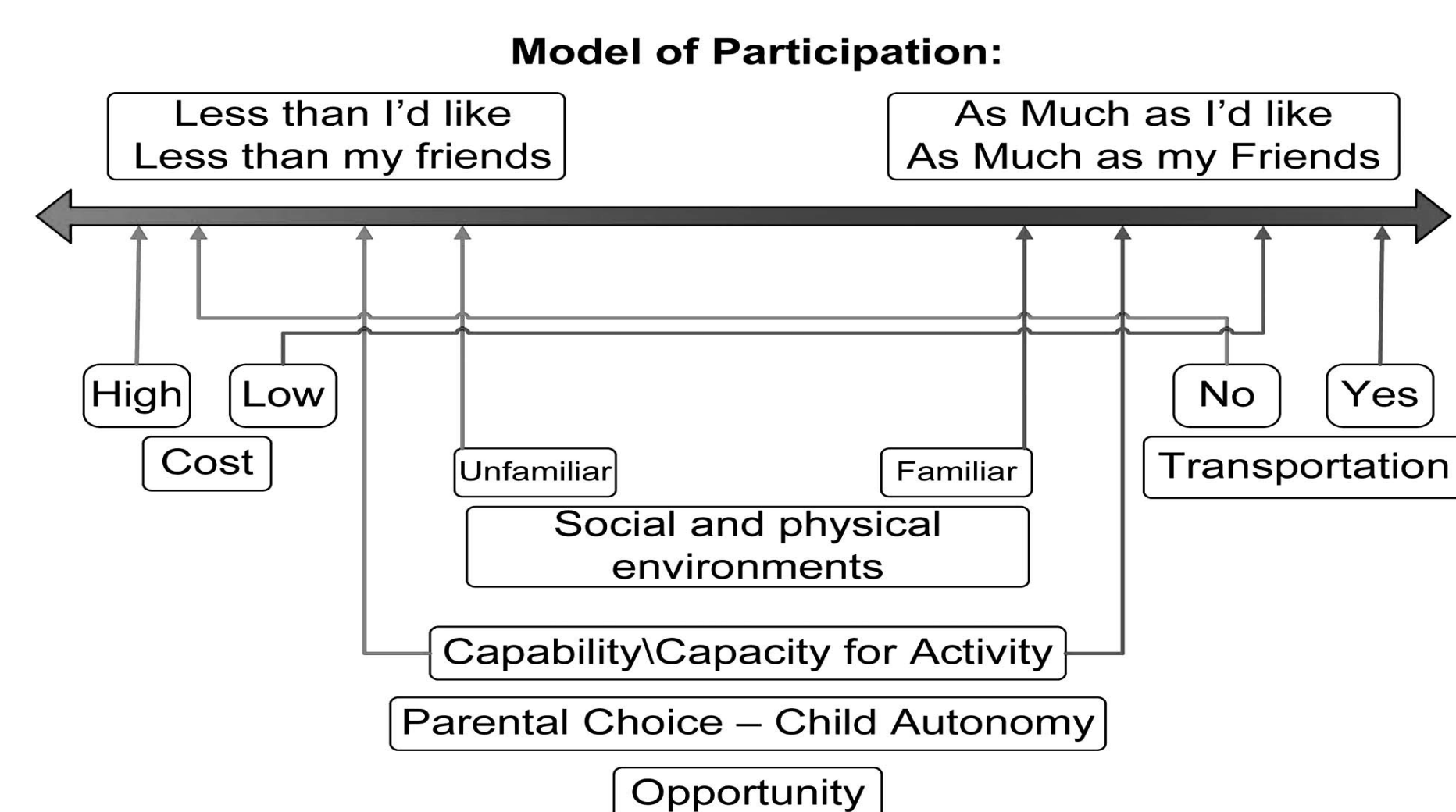
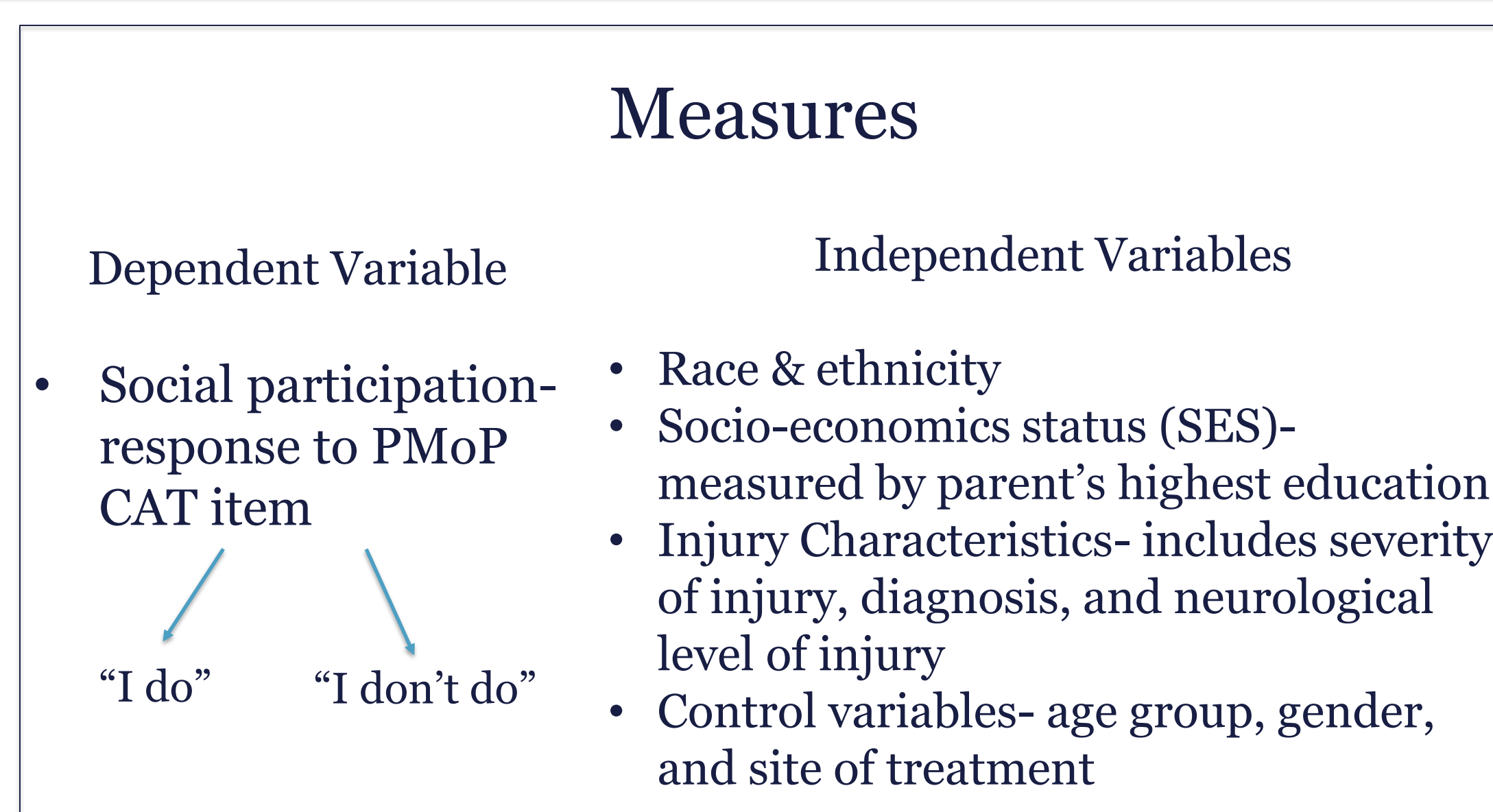


Figure 1. Model of Participation

Methods

- Secondary data analysis from the PMoP Calibration Study
- Participants: N= 381, ages 8-21 with diagnosis of SCI and have returned to pre-injury environment for at least 3 mos.
- Data was used from the PMoP "participation compared to self" CAT. A sample of items were selected that:

- Focused on activities that take place outside the home with people other than family (i.e. friends or community members)
- not filtered from more than 3% of participants
- At least 10% of respondents responded that they "do not do, because they don't want to"



Statistical Analysis

For each selected item, using SPSS 25, associations between each variable and social participation was determined using a chi-square test. Variables showing a potentially significant relations ($p < 0.10$) were then included in a binary logistic regression analysis. For this analysis, significance was defined as $p < 0.05$

Results

Variable	N (%)
Total Number of Participants	372 (100.0)
Site	
Philadelphia	194 (52.2)
Chicago	110 (29.6)
Northern CA	71 (19.1)
Race & Ethnicity	
Caucasian, non-Hispanic	260 (69.9)
Caucasian, Hispanic	54 (14.5)
African American	37 (9.9)
Other	21 (5.6)
Gender	
Male	206 (55.4)
Female	169 (45.4)
Age Group	
8 to 11	69 (18.5)
12 to 15	87 (23.4)
16 to 21	216 (58.1)
Diagnosis	
Tetraplegia	158 (42.5)
Paraplegia	217 (58.3)
Severity	
Complete	202 (54.3)
Incomplete	170 (45.7)
Parent's Highest Education	
High School or Less	135 (54.4)
Some College or higher	113 (45.6)
Child Data Only	124 (33.3)
Neurological Level	
C1-C4	74 (19.9)
C5-T1	93 (25.0)
T2-T12	172 (46.2)
L1-L5	33 (8.9)
S1-S5	0 (0.0)

Table 1. Participant Characteristics

Item	Problem Set #	Do it (%)	Don't Do It (%)	Total Answered
I am on a community team or club	10	100 (27.1)	269 (72.9)	369
I eat dinner at my friend's house	30	231 (62.1)	139 (37.6)	370
I sleep over my friend's house	32	183 (49.6)	186 (50.4)	369
I go to theaters, concerts, and sporting events	33	311 (84.1)	59 (15.9)	370
I try clothes on at the store	38	177 (48.0)	192 (52.0)	369
I go on roller coasters or the Ferris wheel	39	155 (42.0)	214 (58.0)	369
I serve myself at a salad bar or ice cream bar	40	242 (65.2)	129 (34.8)	371
I take lessons to learn a special talent like dance or music	56	108 (29.2)	262 (70.8)	370
I go places in my friend's parent's car	59	205 (55.3)	166 (44.7)	371

Table 2. Item Sample

Variables	10: I am on a community team or club		30: I eat dinner at my friend's house		32: I sleep over my friend's house		33: I go to theaters, concerts, and sporting events		38: I try clothes on at the store		39: I go on roller coasters or the Ferris wheel		40: I serve myself at a salad bar or ice cream bar		56: I take lessons to learn a special talent like dance or music		59: I go places in my friend's parent's car		
	AOR	p	AOR	p	AOR	p	AOR	p	AOR	p	AOR	p	AOR	p	AOR	p	AOR	p	
Gender																			
Male (reference)																			
Female			1.253	0.323					3.090	<0.001*			1.631	0.054		^s	1.232	0.358	
Race/ Ethnicity																			
Caucasian, Non-Hispanic (reference)																			
Caucasian, Hispanic	0.330	0.01*	0.483	0.025*			0.819	0.738											
African American	0.419	0.064	0.606	0.179			0.543	0.324											
Other	0.234	0.056	0.199	0.001*			0.479	0.379											
Age Group																			
8 to 11										2.699	0.001*					3.371	<.001*		
12 to 15										1.585	0.089					2.384	0.002*		
16 to 21 (reference)																			
Diagnosis																			
Tetraplegia			0.628	0.522	1.160	0.839			0.852	0.826	0.431	0.231	0.274	0.123				0.652	0.529
Paraplegia (reference)																			
Parent's Highest Education																			
High School or Less (reference)																			
Some College or Higher								2.307	0.04*										
Severity																			
Complete (reference)																			
Incomplete	1.561	0.067			1.759	0.019*			2.399	<0.001*	1.979	0.005*						1.929	0.007*
Neurological Level																			
C1-C4 (reference)																			
C5-T1	1.743	0.091	1.581	0.193					1.865	0.089	2.189	0.036*	3.520	<0.001*				1.599	0.164
T2-T12	2.069	0.351	4.943	0.042*					3.243	0.133	1.661	0.505	3.248	0.185				2.866	0.149
L1-L5	1.721	0.523	8.365	0.017*					3.616	0.145	1.763	0.503	3.039	0.256				2.038	0.388

Table 3. Binary Logistic Regression Analysis Results.

Adjusted odds ratios (AORs) are calculated with a 95% confidence interval (CI). AORs with a p-value less than 0.05 are considered significant. Significant associations are denoted with a bolded asterisk (*).

Discussion & Limitations

- These findings indicate that social participation in children and adolescents with SCI, particularly participation in activities occurring outside of the home with people other than family, can be complex and multifactorial.
- Our analysis provides further evidence that race and ethnicity and SES may play an important role in community-based social participation.
- Future research and analysis should further investigate the relationships between social participation and SES and race and ethnicity in children and adolescents with SCI, look into demographic factors as they relate to social participation on different level, and analyze factors from the model of participation in figure 1 and their associations with social participation in children and adolescents with SCI.
- Limitations:
 - Cross-sectional analysis of secondary data, only shows trends in AORs
 - Potential confounders-factors in the model of participation
 - Selection bias- convenience sample, not representative of SCI population
 - Large confidence intervals

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