

Participation and the Influence of Personal Assistance & Environment

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12th Annual North American Collaborating Center Conference on ICF

**LIVING IN OUR ENVIRONMENT:
The Promise of ICF**

2006
JUNE 5 to 7
Vancouver, British Columbia (Canada)

ICF Based Measure of Participation for People with Mobility Impairments and limitations – PARTS/M

Health Condition (disorder/disease)
SCI, Polio, MS, CP & Stroke

Body Function & Structure (Impairment)
Lower Limb

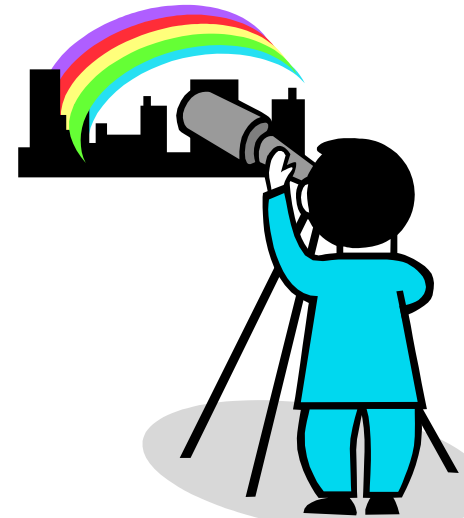
Activities (Limitation)
Moving Body

Participation (Restriction)
Doing activities in natural, lived environments:
Study domains (6 of 9 ICF participation domains)
1 self-care, 2 mobility, 3 domestic life,
4 interpersonal interactions & relationships
5 major life areas, & 6 community, social & civic life

Environmental Factors:
Standard Clinic

Environmental Factors:
Natural, Lived

Personal Factors
Demographics



PARTS/M: Demographics of Samples

	Total	Diagnostic groups					Device groups				
Sample		SCI	MS	CP	Polio	Stroke	Mixed	MWC	PWC	Scooter	CCW
	(N=604)	(n=141)	(n=126)	(n=88)	(n=169)	(n=80)	(n=162)	(n=66)	(n=56)	(n=21)	(n=67)
Test age Mean	51.5	41.4	51.8	39.3	61	62	53.4	43.9	45.6	56.5	58.1
Range	17-92	17-79	19-82	17-73	44-83	19-92	19-92	17-82	17-78	35-86	20-82
Gender - Female	57.5	25.5	80.2	47.7	76.3	48.8	64.2	45.5	41.1	71.4	64.2
Race											
White	88.2	82.7	91.2	86.4	97.6	74.7	91.4	81.8	94.5	90.5	95.5
Black/African American	9.8	15.1	6.4	10.2	0.6	25.3	6.2	15.2	3.6	9.5	3
Other	2	2.1	2.4	3.4	1.8	0	1.2	3	1.8	0	1.5
Hispanic/Latino origin											
Yes	2.1	3	0.8	1.2	2.4	2.7	1.9	3	3.6	0	0

PARTS/M: Question Sequence

Participation
Component
Temporal
Time taken
Frequency
Health-related

Evaluative

Evaluative

Evaluative§

important
Supportive

Supportive

Form of Questions

How much time do you require for _____? or
How often do you _____?

Is your participation _____ limited by ... (Check all that apply.)
 Illness Pain Fatigue Not limited

When __, how much **choice** do you have compared to others without mobility limitations?
(Choice includes how, where, when and how often _____.)

A lot of choice Some choice Little choice No choice

How **satisfied** are you with your participation in _____?

Very satisfied Satisfied Somewhat satisfied Dissatisfied

How **important** is it for you to _____?

Very important Somewhat important Somewhat unimportant Not

How much **help from another person** do you require to _____?

A great deal A moderate amount Just a little None

How often do you use **accommodations, adaptations, or special equipment** for _____?

All of the time Most of the time Some of the time A little of the time Never

PARTS/M: Domains, Activities, and ICF d Codes

Domain
Self-care

Mobility

Domestic life

Interpersonal interactions & relationships domain

Major life areas domain

Community, social & civic life domain

Activity

Dressing

Bathing

Bladder care

Bowel care

Meals

Move inside home

Leave home

Vacations

Work inside home

Exterior maintenance

Parenting

Intimacy

Employment

Volunteering

Money management

Community acts

Religious acts

ICF d code

d540

d510

d5300

d5301

d550

d4600

d4601

d499

d640

d6501

d7600

d770

d850

d855

d865

d910

d930

PARTS/M: Scoring

6 Domain and 4 Component Scores

Items from 6 participation questions for 5 self-care activities (30 items) and 7 participation questions for 15 other activities (105 items) provide 135 scores

Factor analysis: a first-order principal component analysis of all activities in a domain yielded 4 participation component factors (temporal, evaluative, health related, supportive) for each of 6 domains for a total of 24 scores

Factor analysis: A second-order principal component analysis of the 6 participation domains yielded 1 score for each of the 6 participation domains

Participation Domains (6)

Self-Care

Mobility

Domestic Life

Interpersonal Interactions & Relationships

Major Life Areas

Community, Social & Civic Life

Participation components (4)

Temporal

Evaluative

Health Related

Supportive

PARTS/M: Domain Internal Consistency and Test-Retest Reliabilities

Activities and Domains	α^*	n	r_{\dagger}	n
Self-care domain	.92	491	.91	260
Mobility domain	.72	90	.91	12
Domestic life domain	.72	348	.83	166
Interpersonal interactions and relationships domain	.71	132	.77	59
Major life areas domain	.81	72	.77	29
Community, social, and civic life domain	.85	145	.82	69

*Internal consistency calculated using the Cronbach α .

†Stability measured by test-retest correlation the Pearson r .

PARTS/M: Internal Consistency and Stability of the Components of Participation

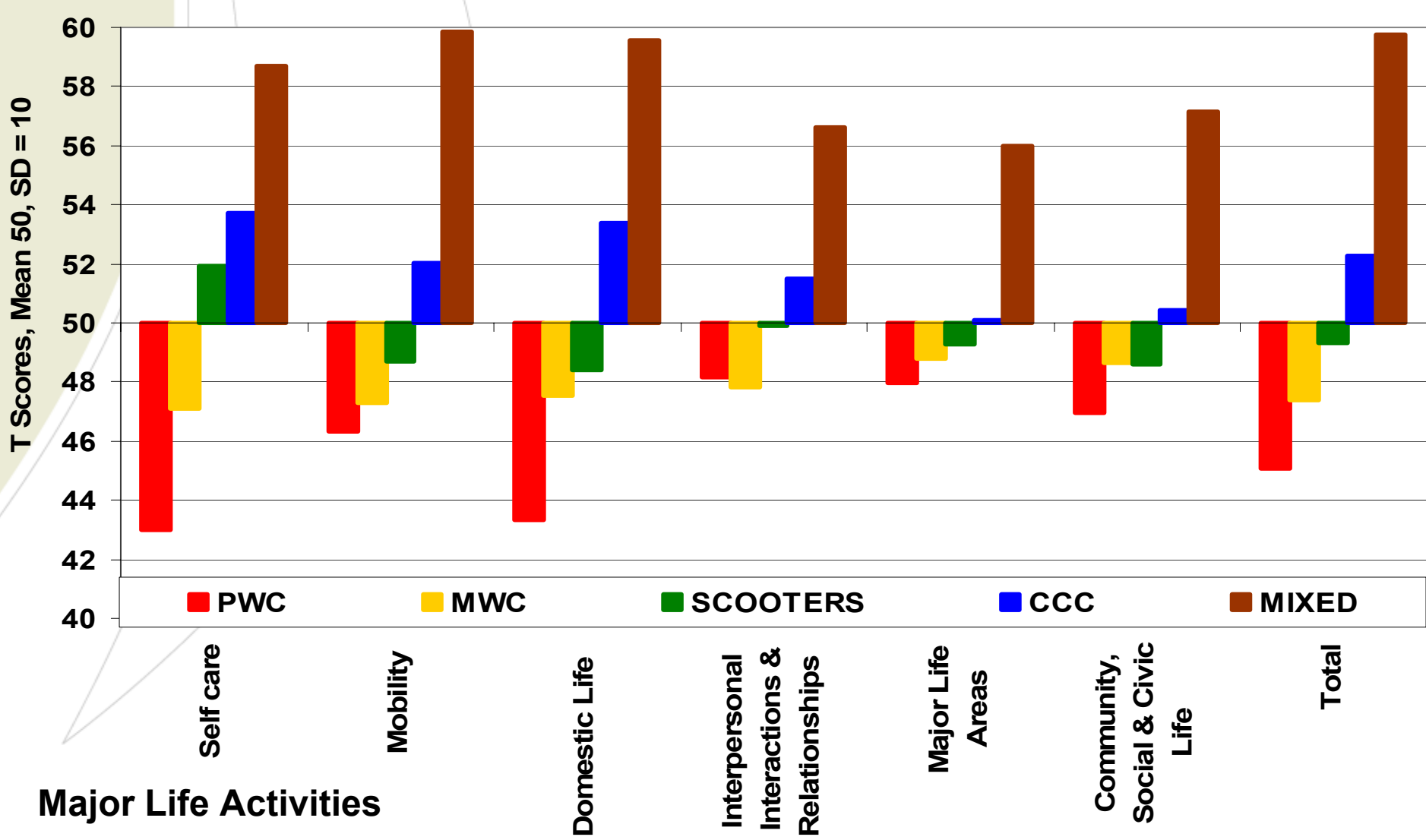
Components	α^*	n	r†	n
Temporal - 20 activities				
Frequency	.64	131	.80	44
Time in participation	.70	194	.81	116
Evaluative - 20 activities				
Choice Items	.93	119	.76	42
Satisfaction Items	.94	115	.91	62
Importance Items	.78	129	.82	72
Health-related limitations questions 20 activities	.97	192	.75	79
Support needed - 14 activities‡				
Amount of personal assistance and environmental accommodations	.93	85	.91	33
	.92	52	.80	29

*Internal consistency calculated using the Cronbach α .

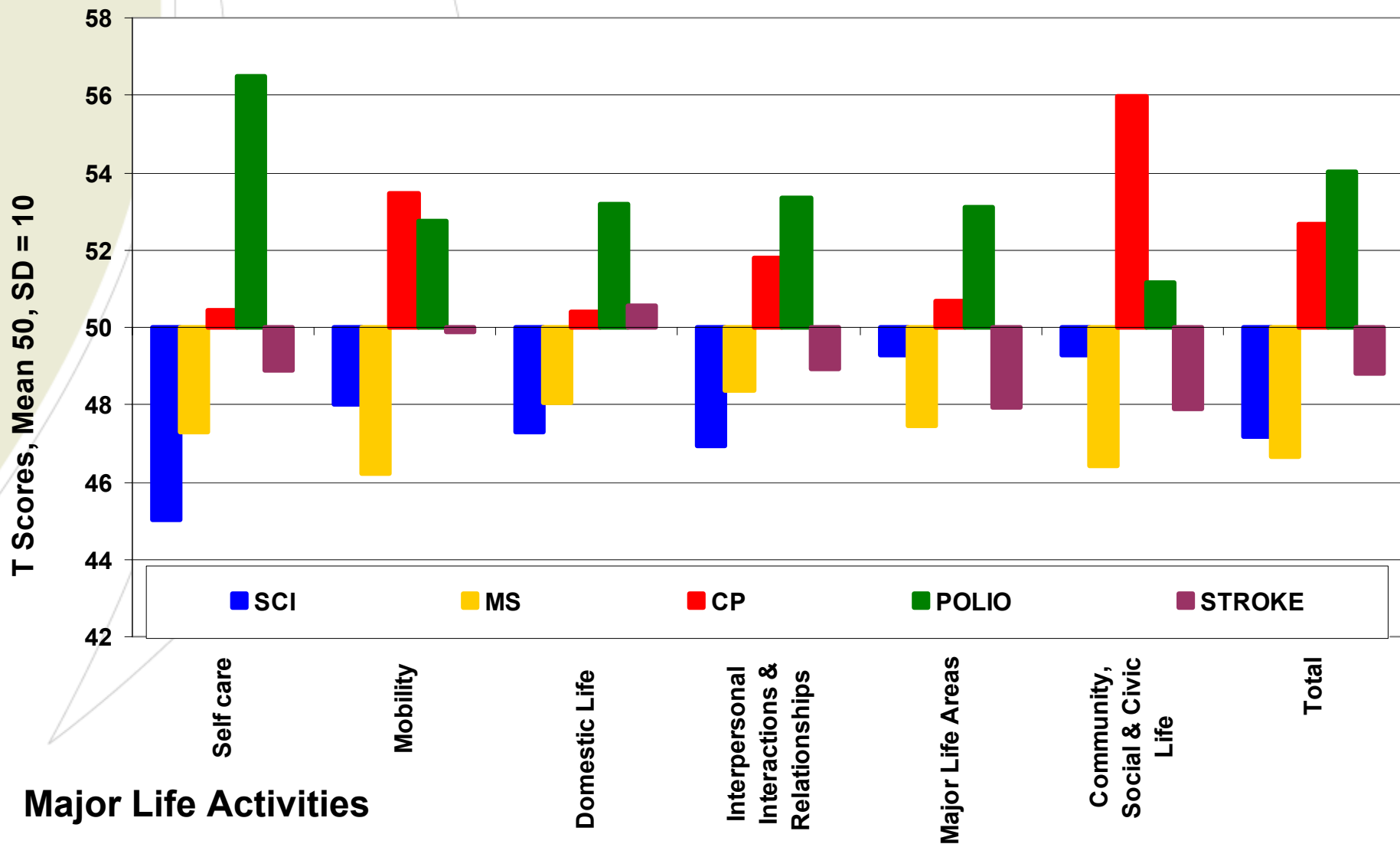
†Stability measured by test-retest correlation the Pearson r .

‡Self-care domain activities not included.

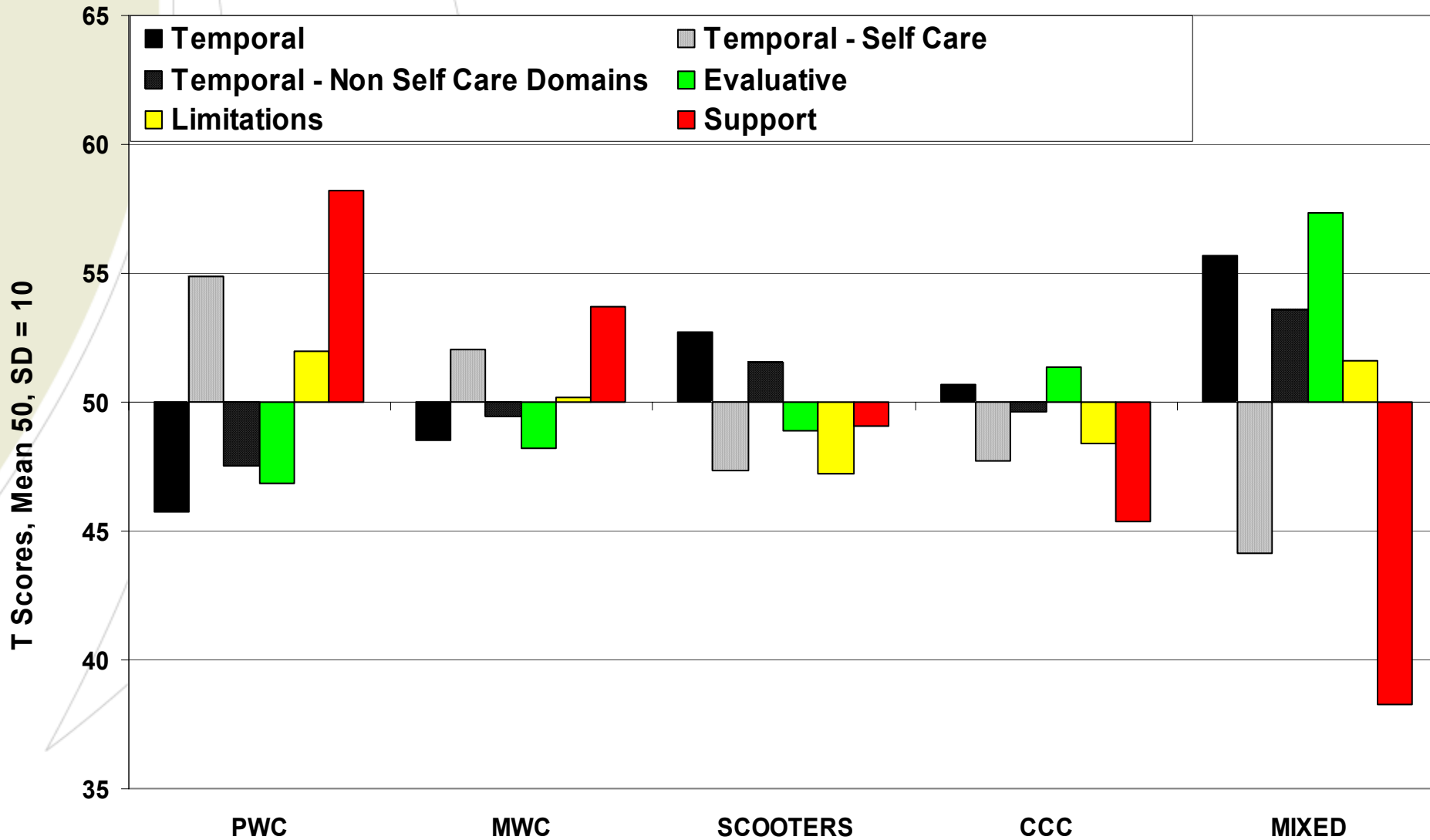
Participation in Major Life Activities by People with Lower Limb Impairments and Mobility Limitations by Device



Participation in Major Life Activities by People with Lower Limb Impairments and Mobility Limitations by Diagnosis



Participation Component Scores: **Devices**



Participation Component Scores: **Diagnosis**

