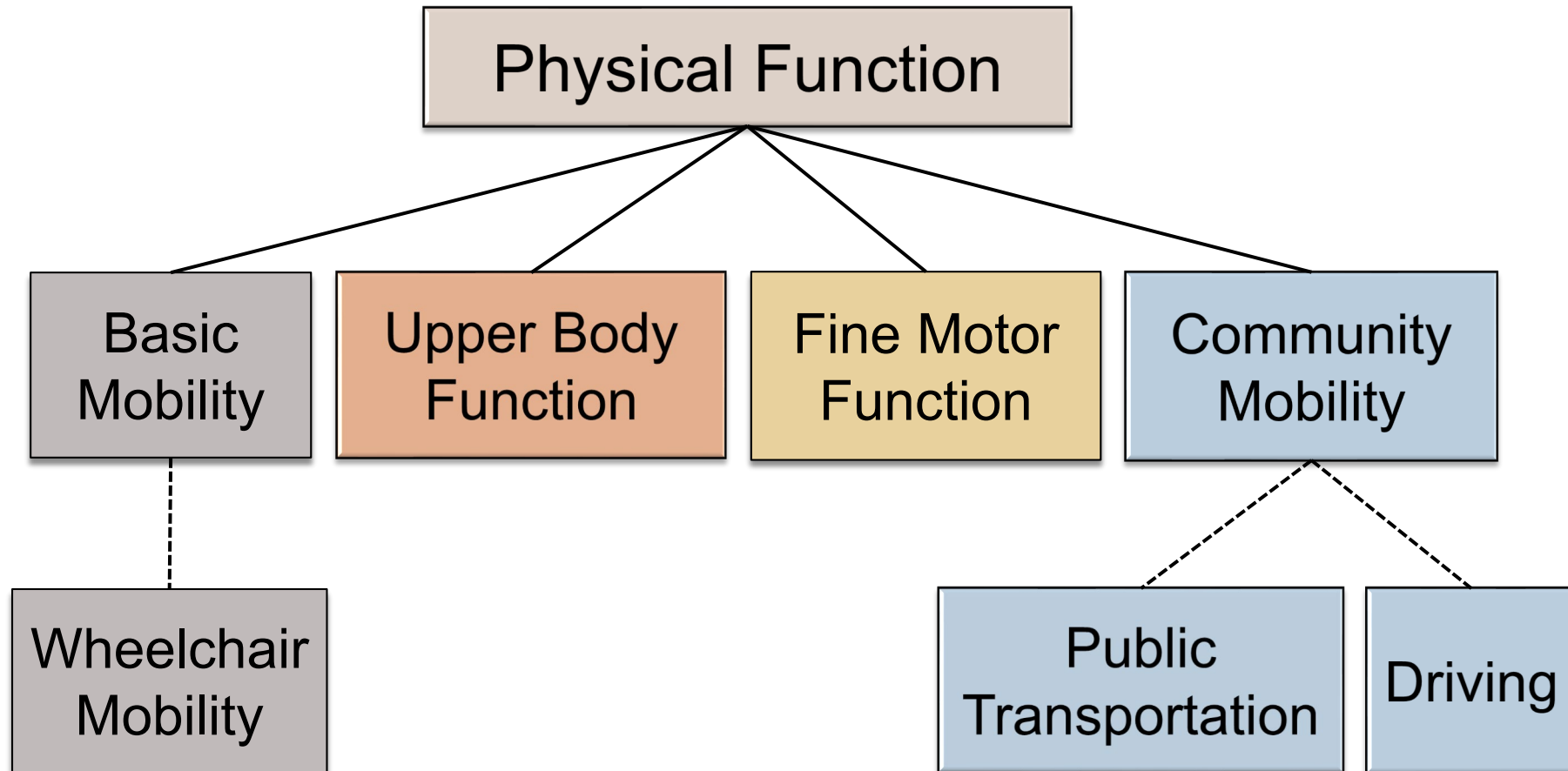




Evidence of Validity and Future Directions for Implementation of the WD-FAB: Physical Function Scales

Christine McDonough

WD-FAB Physical Function Scales



Psychometric Studies:

Initial studies:

- ❑ Test-Retest Reliability
- ❑ Validity relative to Legacy Comparator Measures
- ❑ 1. Score Interpretability: Functional Levels/Stages
- ❑ 2. Score Distributions, Ceiling/Floor for Expanded WD-FAB
- ❑ 3. Initial validity test of Functional levels

Initial Psychometric Studies

- ❑ Test-Retest Reliability (Marino 2015)
 - ❑ $n = 316$ adults reporting work disability (physical conditions)
 - ❑ WD-FAB test-retest 7-10 days
 - ❑ ICC_{3,1} Basic Mobility: $r = 0.86$; Upper Body Function: $r = 0.84$; Fine Motor Function: $r = 0.76$; Driving: 0.66; Public Transportation: $r = 0.75$; Wheelchair: $r = 0.73$

Initial Psychometric Studies

Validity: Correlation with Legacy measures (Meterko 2015)

- ❑ n= 476 US adults with self-reported work disability
- ❑ PROMIS PF: Basic Mobility: $r = 0.82$; Upper Body Function: $r = 0.75$; Fine Motor Function: $r = 0.60$; Driving: 0.25; Public Transportation: $r = 0.57$
- ❑ PM-PAC Mobility: Basic Mobility: $r = 0.53$; Upper Body Function: $r = 0.55$; Fine Motor Function: $r = 0.34$; Driving: 0.29; Public Transportation: $r = 0.48$

1. Score Interpretability: Thresholds for Functional Levels

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ORIGINAL REPORT

INTERPRETING PHYSICAL AND BEHAVIORAL HEALTH SCORES FROM NEW WORK DISABILITY INSTRUMENTS

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1. Score Interpretability: Thresholds for Functional Levels

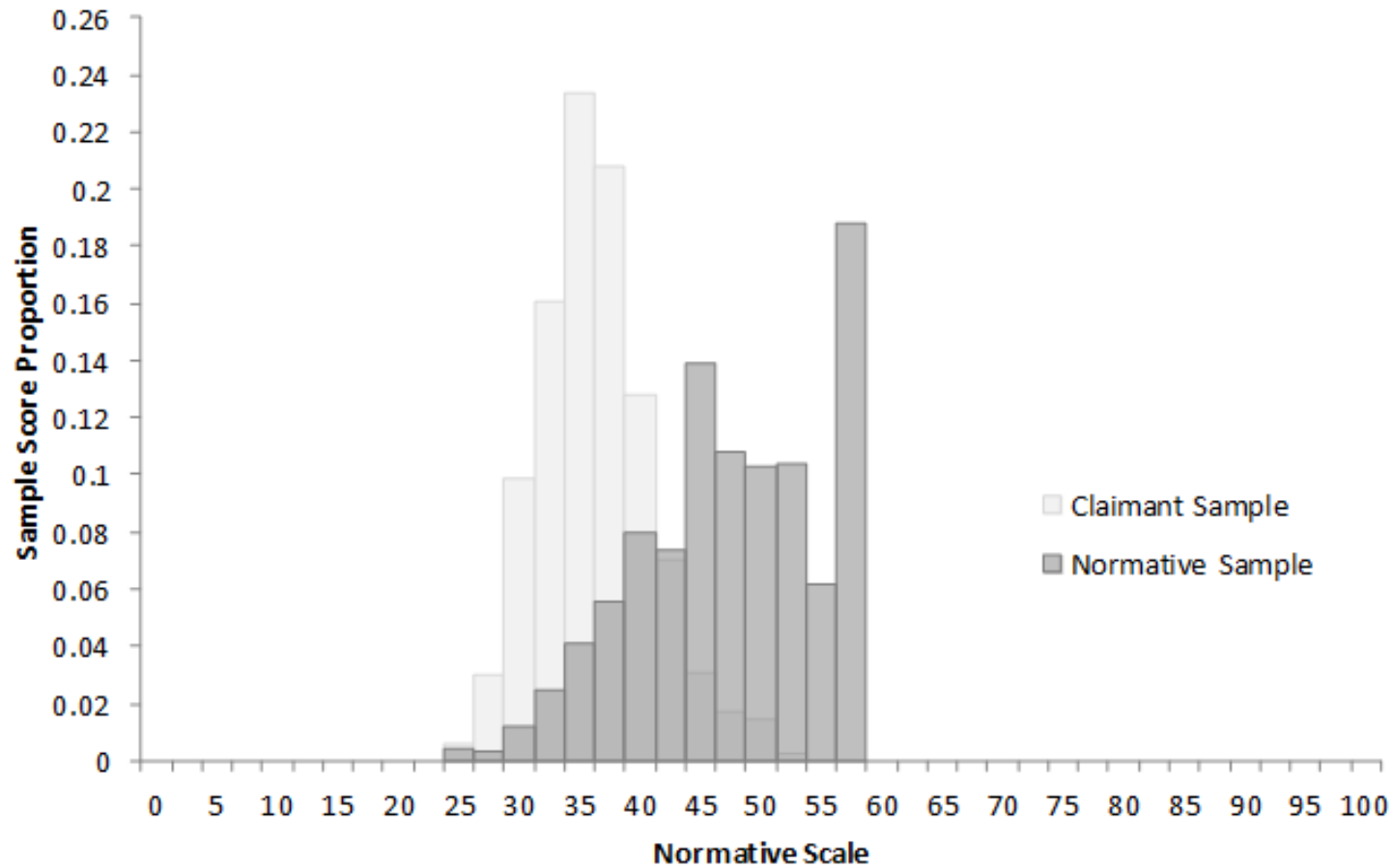
- Design:
 - ▣ Cross-sectional, secondary data from 3 independent samples
- Subjects:
 - ▣ 999 from general working age adult sample
 - ▣ 1,017 disability applicants
 - ▣ 497 work-disabled internet panel participants
- Methods:
 - item mapping
 - 8 experts in work disability from a range of disciplines
 - modified-Delphi for consensus -3 steps
 - known-groups validation analysis

2. Expanded WD-FAB Score Distribution: Methods

- Methods:
 - ▣ We compared claimant and general working age score distributions
 - Hypothesis: claimant scores would be lower than the working age adult
 - ▣ We evaluated floor and ceiling effects by calculating the proportion of the sample with the lowest and the highest possible score respectively.

2. Expanded WD-FAB Score Distribution. Results

Basic Mobility



2. Expanded WD-FAB Score Distribution. Results

Percent at Ceiling & Floor by Scale for 5-10 item CAT, n=1024 Claimants

	Floor (%)	Ceiling (%)
Basic Mobility	0.0	0.0
Upper Body Function	0.2	0.0
Fine Motor Function	0.0	2.6

Study 3. Functional Levels Initial Validity Test

- Cross sectional: 1,000 claimants and 1,000 from general working age adult sample
- Methods: For general sample we collected highest exertion level that could be performed as their fulltime job via self-report. We examined the relationship between WD-FAB physical functional level and self-reported physical exertion ability level.
 - 1. unable
 - 2. light
 - 3. medium
 - 4. medium
 - 5. heavy
 - 6. very heavy

Study 3. Validity: Methods

- Explored the distribution of functional levels in claimant and general sample
- Conducted correlation analysis Functional Level (1-5) and Self-reported physical work ability level (1-6) (general sample n=1000)

Study 3. Validity: Results

Basic Mobility: Distribution of Claimant and General Sample across Functional Levels n(%)

Functional Level	Claimant Sample n=976	General Working Age Sample n=999
Very low (0-17)	0 (0)	0 (0)
Low (18-30)	188 (19.3)	27 (2.7)
Average (31-40)	689 (70.6)	227 (22.7)
High (41-53)	99 (10.1)	557 (55.8)
Highest (\geq 54)	0 (0)	188 (18.8)

Chi-square=861.1914, df=3, p<0.0001

Study 3. Validity: Results

Correlation between WD-FAB Functional Levels
and Self-reported Work ability levels

Scale	Spearman Correlation p-value
Basic Mobility	0.51 <.0001
Upper Body Function	0.50 <.0001
Fine Motor Function	0.37 0.0100

Summary of Findings & Next Steps

- Analyses across samples support validity of WD-FAB in measuring physical functioning relative to work disability
- Need experience with application in disability services settings to assess added value

Future Directions for Implementation

- Language or cultural translation requirements
- Consider goals of measurement:
 - ▣ Describing functioning at one point in time
 - ▣ Measuring change over time
- Assess workflow for target setting
 - ▣ When would scores be most useful
 - ▣ How would the WD-FAB be administered
- Elicit feedback on
 - ▣ Value of functional profiles in assessment process
 - ▣ score reports and WD-FAB training program

Thank you!
Questions?