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Background and Research Objective

Caregivers play a vital role in the safety and well-being of people with dementia.

- Majority of people with dementia live at home, are cared for by families or close friends/negotiators, and require supervision or assistance with daily activities.
- 80% of care provided in the home is delivered by unpaid caregivers (Alzheimer’s Association, 2013, Family Caregiver Alliance, 2006).

Functional capacity in the person with dementia is typically assessed by caregiver report.

- Cognitive process that caregivers use to judge functional capacity of the person with dementia.
- Serves as a mediator for the actions caregivers take in providing daily care (amount and type of supervision; modifications to the home).
- Has consequences for safety and well-being of the person with dementia.

Caregivers often misjudge functional ability of the person with dementia.

- Caregivers overestimate and underestimate function (Karagiozis et al., 1998; Zanetti, et al., 1999).
- Caregiver report is an important proxy measure in dementia care as the person with the cognitive impairment tends to overestimate function (Karagiozis et al., 1998; Kiyak, et al., 1994).

Research Objective:
The purpose of this study was to establish content validity of the Functional Capacity Card Sort and advance its development by examining construct validity, specifically convergent and discriminant validity, and inter-rater reliability.

Method

Content Validity:

- Four Phases: In Phases 1 to 3, the FCCS was reviewed by occupational therapists (N = 14) with expertise in the CDM and Allen Assessment battery. In Phase 4, 84 graduate occupational therapists (N = 37) trained in the CDM and assessment tools. The expert occupational therapists were asked to identify the intended Allen Cognitive Level for each card that was presented and then to provide recommendations to enhance the clarity of the descriptions on each card of each functional level associated with hand washing. The mean percent accuracy and standard deviation were calculated across raters. In Phases 2, 3, and 4, family caregivers (N = 72) were asked to rank cards in order from lowest to highest function and to rate four items addressing difficulty and clarity of a task range from 1 (not difficult and very clear) to 10 (very difficult and not clear).

Construct Validity (Convergent and Discriminant Validity):

- Secondary analysis of data was conducted with SAS® 9.3 using nonparametric statistical procedures. Inter-rater reliability was examined by measuring the degree to which caregivers consistently ranked the FCCS cards from low to high function. The Kendall’s τ statistic was used to determine the strength of agreement among caregiver rating, which ranges from 0 (no agreement) to 1 (complete agreement) with higher agreement indicating higher inter-rater reliability.

Interpreting Caregiver Appraisal

A comparison of occupational therapist and caregiver ratings yielded three categories:

1. Concordant estimation (FCCS caregiver rating consistent with the occupational therapist derived ADM-2 score) implying the caregiver accurately appraised functional capacity using the occupational therapy rating as the gold standard.
2. Overestimation (FCCS rating was higher than the occupational therapist ADM-2 score) implying the caregiver inaccurately appraised functional capacity at a lower level than indicated by the standardized test score.
3. Underestimation (FCCS rating was lower than the ADM-2 score) implying the caregiver inaccurately appraised functional capacity at a lower level than indicated by the standardized test score.

Results

- Theoretical Framework: Cognitive Disabilities Model (CDM)
  - Hierarchy of cognitive abilities and activity demands
  - Describes ability to perform daily activities given the complex interactions between cognitive ability and the context in which the activity takes place (Allen & Blue, 1998).
  - Sequential modes of performance (O, J, A, R, and S) further distinguishes patterns of behavior, forming an ordinal scale that represents the ability to notice and react appropriately to increasingly complex activity and environmental demands (Allen, Blue & Earhart, 1995; Polland & Gilin, 2005).

Six Cards describe the activity of “washing self”:

- “Washing self” has universal application
- Allowed for the development of clear statements distinguishing the hallmark features of the Allen Cognitive Levels (Allen, Blue & Earhart, 1995)
- Each card maps onto an Allen Cognitive Level grouping of high and low modes that reflect a hierarchy of functional capacity

Caregiver Appraisal of Functional Capacity is an essential element to the day to day responsibilities of caregiving.

- Caregivers play a vital role in the safety and well-being of people with dementia.
  - Caregiver intervention.

Construct Validity (Convergent and Discriminant Validity)

- Correlation between the FCCS and ADM-2 (r = .91, p < .0001)

Inter-rater Reliability

- Correlation between the FCCS and ADM-2 (r = .91, p < .0001)

References