

variability in community-dwelling older adults

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Objective: There are two forms of intra-individual variability (IIV) in the literature: inconsistency, or variability on *one* task across *many* time points, and dispersion, or variability across *many* tasks at *one* time point. These forms of IIV are often lumped together into one construct, but there is limited evidence supporting this practice, as few studies have examined the relationship between these measures. Additionally, it is not clear how stable these constructs are over time. Therefore, the goal of the present study was (1) to explore the relationship between (a) inconsistency and dispersion and (b) IIV and mean performance, and (2) to determine whether these relationships are stable over a one- to two-year follow-up interval.

Participants and Methods: A total of 123 community-dwelling older adults ($M_{\text{age}}=69.5$, $M_{\text{education}}=15.6$ years) from an archival database completed the Push-Turn-Taptap task to assess inconsistency and the Delis-Kaplan Executive Functioning System (D-KEFS) to assess dispersion. These measures were selected because both are highly executive, thereby allowing us to hold the cognitive domain constant across forms of IIV. Dispersion was calculated by taking the standard deviation of the executive conditions of four D-KEFS subtests (Verbal Fluency, Design Fluency, Trail Making, and Color Word Interference). Follow-up data were collected one to two and a half years after baseline. Bivariate and partial correlations controlling for time to follow-up were examined.

Results: Inconsistency and dispersion were not correlated at baseline but were weakly correlated at follow-up ($r=.281$, $p=.012$). Additionally, both forms of IIV were moderately correlated with themselves across the follow-up interval (inconsistency: $r=.450$, $p<.001$; dispersion: $r=.448$, $p<.001$). The partial correlations were nearly identical to bivariate correlations.

Additionally, inconsistency was correlated with poorer mean executive functioning (EF) performance on both the PTT (baseline: $r=.281$, $p<.001$, follow-up: $r=.435$, $p<.001$) and D-KEFS

(baseline: $r=-.270$, $p=.003$, follow-up: $r=-.573$, $p<.001$). In contrast, dispersion was correlated with mean EF performance only on the D-KEFS at baseline ($r=-.292$, $p<.001$) but with both measures at follow-up (PTT: $r=.232$, $p=.039$; D-KEFS: $r=-.378$, $p<.001$). When controlling for follow-up interval, inconsistency was no longer correlated with baseline mean PTT performance, but all other relationships remained the same (i.e., dispersion and inconsistency displayed the same pattern of correlations with mean EF).

Conclusions: Although inconsistency and dispersion are both forms of IIV, they are weakly related. In other words, although they may have shared mechanisms, these two methods of measuring IIV likely represent different constructs. In the future, authors should take care to specify the form of IIV being investigated in their publications rather than referring to either form as IIV generally. Additionally, both forms of IIV are weakly to moderately correlated with mean EF performance, indicating that IIV is *related to* but *separate from* mean-level performance. Interestingly, IIV and mean performance were more strongly correlated at follow-up, which may be suggestive of incipient cognitive decline. Lastly, it seems that both inconsistency and dispersion are somewhat stable across a one- to two-year follow-up interval, suggesting that IIV may be a trait-level construct to some extent. However, IIV may also be influenced by state-level contextual factors, and more research examining the stability of and contributors to IIV is necessary.

Categories:

Assessment/Psychometrics/Methods (Adult)

Keyword 1: aging (normal)

Keyword 2: assessment

Keyword 3: executive functions

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37 The Influence of Informant Characteristics on Reports of Participant Functioning and Associations Between Reported Functioning and Neuropsychological Performance among Non-Hispanic Black Adults

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Objective: Assessing one's functional capacity – in addition to neuropsychological performance – is essential for determining neurocognitive status, and functional assessment is often provided via informant report. While informant characteristics have been shown to influence reports of participant functioning, the degree to which they moderate relationships between reported functioning and participant performance on neuropsychological testing is unclear. Moreover, associations among informant characteristics, reported functioning, and neuropsychological performance have not been directly examined with non-Hispanic Black (NHB) samples, despite this population's disproportionately high risk for dementia.

Participants and Methods: In this cross-sectional observational study, we examined the influence of informant characteristics on (1) informant reports of participant functioning (assessed via the Functional Activity Questionnaire [FAQ]), and (2) associations between reported functioning and participant performance on neuropsychological testing, among NHB adult participants in the National Alzheimer's Coordinating Center cohort (n=1024).

Results: Younger age, female sex/gender, higher education, longer relationships with participants, and cohabitation were informant characteristics associated with poorer reported functioning ($p < .01$). Moreover, poorer reported functioning was associated with poorer performance on (1) memory and language tests, particularly for participants with male (versus female) informants, and (2) the Multilingual Naming Test, particularly for participants with cohabitating (versus non-cohabitating) informants ($p < .01$).

Conclusions: Within the context of neurocognitive evaluation of NHB adults, informant age, sex/gender, education, relationship length, and cohabitation status influence informant reports of participant functioning, and informant sex/gender and cohabitation status in turn moderate associations between reported functioning and participant performance on comprehensive neuropsychological testing.

Categories:

Assessment/Psychometrics/Methods (Adult)

Keyword 1: cross-cultural issues

Keyword 2: everyday functioning

Keyword 3: dementia - Alzheimer's disease

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38 Craft Story 21, Argentine Baremization of a Memory test and Design of a Recognition Instance.

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Objective: Craft Story 21 is a practical, comprehensive, and freely available tool to assess logical memory in patients with memory impairment. Currently, the test does not have normative values in Spanish that adjust to our specific population. Furthermore, the original test does not have a recognition phase to increase the specificity of the memory profile by allowing a distinction between different amnesic profiles. Therefore, this study has two main aims: 1) the generation of normative data for the Craft Story 21 memory test, adjusting to the characteristics of our Spanish-speaking country according to sex, age, and educational level; and 2) the design and validation of the recognition phase of the test and the assessment of its psychometric properties.

Participants and Methods: The baremization sample comprised 81 healthy participants aged 41 to 91, assessed through the Uniform Data Set III (UDS III) battery of the National Alzheimer's Coordinating Center (NACC). The design of the recognition phase included three steps: (1) construction of the scale and review by experts, (2) pilot study, and (3) analysis of its psychometric properties. In the latter, 190 participants were recruited and classified into two groups matched by age, sex, and educational level: Mild Cognitive Impairment (MCI n=96) according to Petersen's (1999) criteria and healthy controls (HC n=94). In