

which could differ from samples seen in clinical settings. The current study reports on base rates of spuriously low cognitive scores in older adults presenting to a memory clinic who were diagnosed with subjective cognitive impairment after interprofessional assessment and information from collateral informants ruled out objective cognitive impairment.

Participants and Methods: Base rates of spuriously low scores for a neuropsychological battery of 12 scores were based on 92 cognitively healthy older adults presenting to a specialist memory clinic ($M(\text{age}) = 61.00$, $SD = 12.00$; $M(\text{edu}) = 12.00$, $SD = 2.74$). Crawford's Monte Carlo simulation algorithm was used to estimate multivariate base rates by calculating the percentage of cognitively healthy memory clinic patients who produced age and education normed scores at or below the 5th percentile. The following tests were used to produce the 12 scores: block design, digit span backwards, and coding from the WAIS-IV; logical memory I and II from the WMS-IV; immediate and delayed memory scores from the California Verbal Learning Test Second Edition short form; immediate and delayed memory scores from the Brief Visuospatial Memory Test Revised; category switching, letter number sequencing, and inhibition switching from the Delis Kaplan Executive Functioning System.

Results: An estimated 33.58% of the cognitively healthy memory clinic population would have one or more low scores (5th percentile cutoff), 14.7% would have two or more low scores, 6.55% would have three or more, 2.94% would have four or more, and 1.31% percent would have 5 or more very low scores due to chance.

Conclusions: Determining base rates of spuriously low scores on a neuropsychological battery in a clinical sample of referred older adults with subjective memory complaints could assist in the diagnostic process. By understanding base rates of clinical samples, clinicians can use empirical data to adjust for expected low scores rather than using conventional corrections (such as 1/20 test scores expected to be low). In a memory clinic sample, three or more low test scores out of 12 is expected to be relatively rare in those who were later determined to have no objective evidence of cognitive impairment based on interprofessional assessment. Understanding normal frequency of low scores will prevent undue conclusions of cognitive impairment which will minimize false positives in diagnosis.

Categories:

Assessment/Psychometrics/Methods (Adult)

Keyword 1: assessment

Keyword 2: neuropsychological assessment

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31 The ADHD Dissimulation Scale (Ds-ADHD) on the MMPI-2-RF versus Established MMPI-2-RF Validity Scales

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Objective: The MMPI-2-RF contains scales that assess different types of invalid response styles, especially potential symptom over-reporting (e.g., F-r, Fs, Fp-r, FBS-r, RBS). However, these scales are not designed to specifically capture noncredible symptoms reports associated with Attention-Deficit / Hyperactivity Disorder (ADHD). Robinson & Rogers (2018) proposed the experimental Dissimulation ADHD validity scale (Ds-ADHD) on the MMPI-2-RF that was effective in distinguishing credible and non-credible ADHD diagnoses via a simulator-based study. Within the current study, the Ds-ADHD scale was compared to the established MMPI-2-RF validity scales within a mixed sample of U.S. Military Veterans.

Participants and Methods: 173 Veterans ($M(\text{age}) = 36.18$, $SD(\text{age}) = 11.10$, $M(\text{edu}) = 14.01$, $SD(\text{edu}) = 2.11$, 88% male, 81% White, 17% Black) completed a neuropsychological evaluation which included an internally consistent MMPI-2-RF profile and up to 10 performance validity tests (PVTs) as well as a question about a possible ADHD diagnosis. The credible group was determined if participants passed all PVTs ($n=146$) and completed at least 2 PVTs. The non-credible group was determined by failing two or more PVTs ($n=27$). Group assignment was clinically confirmed. The Ds-ADHD scale was calculated according to Robinson & Rogers' (2018); responses of "true" (i.e., erroneous stereotypes) were coded as 1 and "false" answers were coded 2, creating a 10- to 20-point scale. Thus,

lower scores would be associated with a higher likelihood of a feigned ADHD presentation. Other MMPI-2-RF validity scales of interest included F-r, Fs, Fp-r, FBS-r, and RBS.

Results: The established MMPI-2-RF validity scales were significantly correlated with PVT group membership, but correlations were weak to moderately strong (r_s ranged from $-.43$ to $-.18$; $p_s < .05$). A series of stepwise regression models were completed with the Ds-ADHD scale and one of the MMPI-2-RF validity scales as independent variables, with group membership as the dependent variable. Ds-ADHD contributed uniquely to each model (β ranged from $.03$ to $.04$, $p_s < .05$). The established MMPI-2-RF validity scales effectively classified group membership (AUC values ranged from $.57$ to $.68$), and the Ds-ADHD scale had a marginally higher AUC ($.69$); however, it was not statistically significantly stronger than any of the established scales ($p_s > .05$).

Conclusions: Clinicians interested in identifying potentially simulated ADHD presentations with the MMPI-2-RF may desire to calculate the Ds-ADHD scale, which previously only had support from a simulator-based study. The Ds-ADHD scale significantly contributed to each model, suggesting that it helped explain groups over and above each of the traditional MMPI-2-RF validity scales. However, it only had a marginally stronger ability to classify participants, indicating that there may be diminishing returns for clinicians. Among the traditional validity scales, RBS and F-r best classified groups, and FBS-r was the least effective. This study employed a cross-sectional design in a mixed sample of Veterans undergoing a neuropsychological evaluation. Future research should focus on replicating the findings using a credible sample that was limited to an independently verified diagnosis of ADHD.

Categories:

Assessment/Psychometrics/Methods (Adult)

Keyword 1: validity (performance or symptom)

Keyword 2: neuropsychological assessment

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32 Influence of Prior Experience with Computer-Based Technology on Tablet-Based Neurocognitive Test Performance: Data from a sample of cognitively impaired South African older adults

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Objective: The global prevalence of persons living with dementia will soon exceed 50 million. Most of these individuals reside in low- and middle-income countries (LMICs). In South Africa, one such LMIC, the physician-to-patient ratio of 9:10 000 severely limits the capacity of clinicians to screen, assess, diagnose, and treat dementias. One way to address this limitation is by using mobile health (mHealth) platforms to scale-up neurocognitive testing. In this paper, we describe one such platform, a brief tablet-based cognitive assessment tool (NeuroScreen) that can be administered by lay health-providers. It may help identify patients with cognitive impairment (related, for instance, to dementia) and thereby improve clinical care and outcomes. However, there is a lack of data regarding (a) the acceptability of this novel technology for delivery of neurocognitive assessments in LMIC-resident older adults, and (b) the influence of technology-use experience on NeuroScreen performance of LMIC-resident older adults. This study aimed to fill that knowledge gap, using a sample of cognitively impaired South African older adults.

Participants and Methods: Participants were 60 older adults (63.33% female; 91.67% right-handed; age $M = 68.90$ years, $SD = 9.42$, range = 50–83), all recruited from geriatric and memory clinics in Cape Town, South Africa. In a single 1-hour session, they completed the entire NeuroScreen battery (Trail Making, Number Speed, Finger Tapping, Visual Discrimination, Number Span Forward, Number Span Backward, List Learning, List Recall) as well as a study-specific questionnaire assessing acceptability of NeuroScreen use and overall experience and comfort with computer-based