

Keyword 2: dementia - Alzheimer's disease

Keyword 3: mild cognitive impairment

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56 Classification Accuracy of Informant-Report on the Dementia Severity Rating Scale (DSRS) for Identifying Examinee-Generated Performance and Symptom Invalidity

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Objective: Assessment of response validity is essential to neuropsychological assessment. Although informant report of examinee functioning has previously been associated with examinee-generated performance and cognitive symptom invalidity (PVT; SVT-C), empirically-derived guidelines for interpreting informant-report validity are lacking. This study sought to assess the classification accuracy of a widely used informant-report measure, the Dementia Severity Rating Scale (DSRS), for discriminating examinee-generated PVT and SVT-C.

Participants and Methods: Data were collected from 145 examinee-informant dyads who completed neuropsychological batteries as part of a routine workup in an epilepsy monitoring unit. PVT status was determined by below-threshold performances on ≥ 2 indicators (Test of Memory Malingering, Wechsler Digit Span Age Corrected Scaled Score, Word Memory Test). SVT-C status was determined by above-threshold responses on both the Minnesota Multiphasic Personality Inventory-2-Restructured Form Response Bias Scale (MMPI-2-RF RBS) and Structured Inventory of Malingered Symptomatology Amnesic Disorders subscale (SIMS-AM). After assessing demographic and relational covariance via t-test and chi square analyses, receiver operator characteristic curves were derived to assess the classification accuracy of the DSRS for discriminating examinee PVT and SVT-C status.

Results: DSRS total score demonstrated acceptable accuracy in classifying PVT status (AUC = .77), with cut scores of ≥ 21 and ≥ 15 yielding .93-.82 specificity and .44-.63

sensitivity. The DSRS also classified SVT-C status with acceptable accuracy (AUC = .71), with the aforementioned cut scores exhibiting .90-.78 specificity and .50-.64 sensitivity. The DSRS also classified SVT-C status using only one indicator (i.e., MMPI-2-RF RBS or SIMS-AM) with acceptable accuracy (AUC = .71-.72), with the aforementioned cut scores exhibiting .92 specificity and .37-.42 sensitivity.

Conclusions: The DSRS can be used to classify examinee-generated PVT and SVT-C on an epilepsy monitoring unit. Results provide empirically-derived psychometric guidelines for interpreting informant-report response validity that are clinically useful and lay the groundwork for future investigations of informant-report response validity.

Categories:

Assessment/Psychometrics/Methods (Adult)

Keyword 1: performance validity

Keyword 2: symptom validity

Keyword 3: neuropsychological assessment

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57 Validation of a List Learning Task for Monolingual Spanish Speaking Older Adults

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Objective: The prevalence of dementia is higher among minoritized Hispanic/Latino populations in the U.S. Development of linguistically relevant and validated cognitive assessments are urgently needed to adequately address the care needs of this at-risk group. List learning tasks are widely used to evaluate verbal episodic memory and are consistently shown to be sensitive to memory deficits across various

neurologic etiologies. The aim of this study was to validate a Spanish list learning task developed as a linguistically appropriate measure of memory in a diverse sample of Spanish speaking Bay Area older adults who identify as Hispanic/Latino.

Participants and Methods: Cognitive scores were assessed in 72 Spanish-speaking older adults living in the Bay Area, California, originally from different countries across South and Central America [(n=29 with CDR scores of 0; n=31 with CDRs of 0.5; and n=12 with CDR of 1), aged 54-96, 30% male], who completed the Spanish list learning task and a brief neuropsychological battery. The list learning task contains 9 words, 3 words from 3 different semantic categories. Category exemplars were excluded. Administration includes three immediate recall trials, a 30-second delay free recall, 10-minute delay free and cued recall, and yes/no recognition. In this initial validation study, we selected the 10-minute delay recall trial as our primary variable and looked at several indices of construct validity. We hypothesized delayed free recall would: 1) correlate highly with other episodic memory tasks, and minimally with non-memory tests (controlling for CDR sum of boxes), and 2) show step-wise declines as total CDR increased from 0 to 1 (controlling for age, sex, and education).

Results: Delayed recall scores of 30-seconds and 10-minutes showed step-wise declines as CDR scores increased (CDR 0 vs. 1, $p < 0.001$ and CDR 0.5 vs. 1, $p = 0.001$). There were no differences in delayed recall between CDR 0 vs. CDR 0.5 ($p > 0.05$). 10-minute delay showed medium-to-large correlations with UDS Craft Story Delayed Recall (partial $r = 0.45$, $p < 0.001$) and Benson Complex Figure Recall (partial $r = 0.63$, $p < 0.001$). Nonsignificant, weaker associations were observed with measures of executive (F Word Verbal Fluency partial $r = 0.10$, Digit Span Forward partial $r = 0.12$), and language (Animal Fluency partial $r = 0.18$) function.

Conclusions: Although there is heterogeneity within Hispanic/Latino populations in the U.S., findings begin to support ecological and construct validity of the Spanish list learning task as a measure of verbal memory in older Spanish-speaking adults in the Bay Area. Supporting ecological validity, delayed recall scores significantly differentiated functionally impaired (CDR=1) from functionally mild or unimpaired older adults (CDR=0 or 0.5), though evidenced less sensitivity differentiating

unimpaired from mild stages of illness. The Spanish list learning task evidenced strong construct validity as a measure of episodic memory, including strong correlations with other validated memory tasks, and non-significant correlations with non-memory tasks. Larger studies should account for diversity of Spanish speakers in the U.S to see how region of origin, education, and differences between first- and second-generation Spanish speakers influences performance on the task. Future work incorporating imaging markers of brain structure may help further validate the Spanish list learning task as an appropriate measure of memory.

Categories:

Assessment/Psychometrics/Methods (Adult)

Keyword 1: aging disorders

Keyword 2: diversity

Keyword 3: dementia - Alzheimer's disease

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58 Preliminary Development of a Virtual Reality Neuropsychological Assessment System

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Objective: While there exist numerous validated neuropsychological tests and batteries to measure cognitive and behavioral capacities, the vast majority of these are time intensive and difficult to administer and score outside of the clinic. Moreover, many existing assessments may have limited ecological validity in some contexts (e.g., military operations). Therefore, we have been developing a novel approach to administering neuropsychological assessment using a virtual reality (VR) "game" that will collect simultaneously acquired multi-dimensional data that is synthesized by machine