

Abstract

Inaugural Poster Session
Hispanic Neuropsychological Society Conference 2019

Saturday, February 23, 2019 5:00 pm – 6:00 pm

GENERAL STUDIES

A-18

Reliability and Validity of the Spanish Language Measures of the NIH Toolbox Cognition Battery

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Objective: The NIH Toolbox for Assessment of Neurological and Behavioral Function (NIHTB) was developed under contract from the National Institutes of Health to create a set of easy-to-administer neuropsychological measures, for use across the lifespan (ages 3-85). The NIHTB Cognition Battery (NIHTB-CB) includes two language measures that were developed, calibrated, and normed separately in English and Spanish. This analysis presents the test-retest reliability and construct validity of the Spanish-language picture vocabulary test (S-PVT) and oral reading recognition test (S-ORRT) among adults. **Participants and Method:** Participants were adults age 18-85 who took part in the NIHTB norming study in Spanish (N = 408, Age: M = 44.1, SD = 16.7; Education: M = 10.7, SD = 4.3; 65.0% female). Of these, 48 repeated the battery 1 week later. Both the S-PVT and the S-ORRT were administered using computer adaptive testing and scored using item response theory. Spearman's correlations were used to evaluate test-retest reliability. Convergent validity was evaluated by correlating S-PVT scores with scores on the Bateria-III Woodcock-Muñoz Vocabulario Sobre Dibujos, and by correlating S-ORRT scores with scores on a 48-item version of the Word Accentuation Test. Adjusted Spearman's correlations and general linear models related scores to age, education, and sex. **Results:** Both the S-PVT ($\rho = 0.87, p < .001$) and the S-ORRT ($\rho = 0.88, p < .001$) demonstrated good test-retest reliability. Good convergent validity was found for both the S-PVT ($\rho = 0.76, p < .001$) and the S-ORRT ($\rho = 0.65, p < .001$). Scores on the S-PVT were positively related to education ($\rho = 0.38, p < .001$), and scores on the S-ORRT were negatively related to age ($\rho = -0.18, p < .01$) and positively related to education ($\rho = 0.30, p < .001$). **Conclusions:** The Spanish language measures of the NIHTB-CB demonstrated acceptable reliability and validity, suggesting they can be used to measure language ability among Spanish-speaking adults in the United States.