Using the Spanish Language Versions of the WAIS-III and WAIS-IV with Bilinguals in the United States of America

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Introduction

- By 2060, 1 out of 4 Americans will identify as Latino, with the Latinx population rising to 26.9% (US Census Bureau, 2023). This demographic shift highlights the need for studies exploring cultural, linguistic, and demographic characteristics.
- It is essential to develop and implement assessments that are sensitive, valid, and reliable across diverse linguistic groups within the Latinx community to enhance the quality of evaluations, care, and treatment. (Vega et al., 2017).
- Language and sociocultural factors significantly impact test performance.
- The Wechsler Adult Intelligence Scales (WAIS) are regarded as the gold standard for assessing adult cognitive abilities in the United States; versions of these scales have been developed and normed in Spain, Mexico, and Puerto Rico.

Methodology

- The present archival study was derived from a pre-existing de-identified clinical outpatient database.
- The sample (N=77) was primarily male (66.2%) with a mean age of 34.53 years and mean education level of 14.38 years.
- The study groups included adults who identify as monolingual Spanish speakers, and bilingual Spanish/English.
- The assessments included in the analysis are the WAIS-III (2001) and the WAIS-IV (2012) in Spanish (Spain).
- An independent samples t-test was used to compare assessment performance between the WAIS-III and WAIS-IV.
- This analysis was followed by an ANCOVA to better understand the mediation effect of cultural influence on assessment performance. Variables that were controlled for included: gender, age, education level, marital status, and occupation.

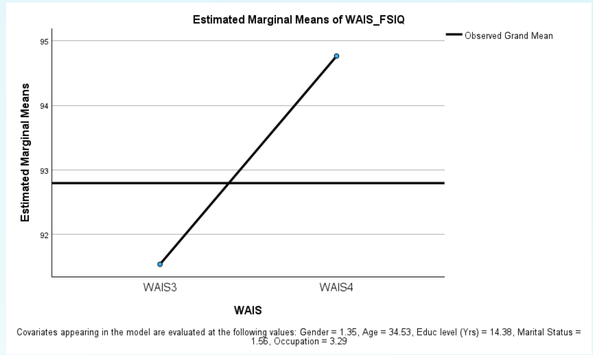
Results

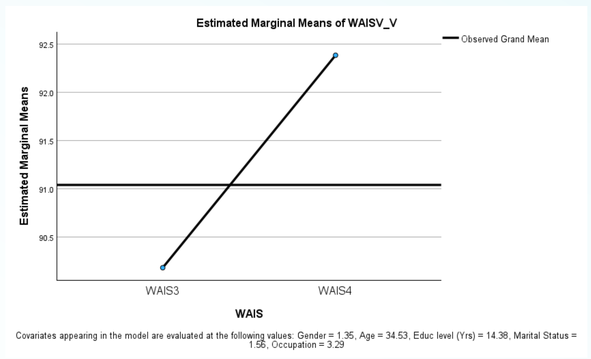
- The independent samples t-test yielded a statistically significant difference in FSIQ (p = .024) between the WAIS-III and WAIS-IV.
- When controlling for culturally sensitive demographic variables, there was no longer a significant difference regarding performance on WAIS-III and WAIS-IV: FSIQ (p = .317), Verbal IQ (p = .536), or Nonverbal IQ (p = .581).

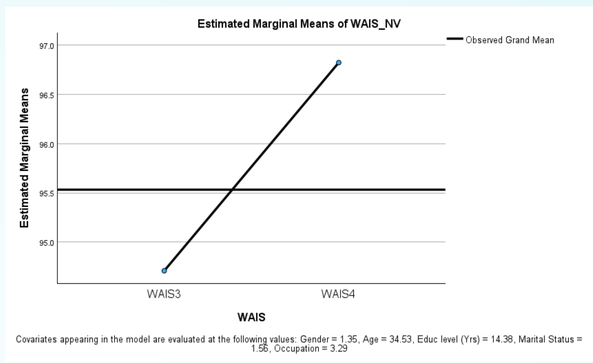
Comparative analysis of Spanish WAIS-III and WAIS-IV performance reveals significant differences attributable to variations in cultural factors rather than in cognitive ability.

Table 1
Results of T-Tests Comparing WAIS Indices

	$t(75)$	p
WAIS FSIQ	-2.31	.024
WAIS Verbal	-2.07	.041
WAIS Nonverbal	-1.53	.131







Discussion

- This study found lower scores across verbal and nonverbal indices on the WAIS-III and WAIS-IV when not controlling for demographic and sociocultural factors.
- Identifying cultural and linguistic influences impacting the psychometric properties of the Spanish versions of the WAIS-III and WAIS-IV would provide a more accurate and culturally sensitive neuropsychological testing protocol for bilinguals and Spanish-speaking individuals in the United States.
- The present study can guide clinician decisions when assessing U.S. monolingual and bilingual Spanish speakers and ultimately encourage appropriate and culturally valid neuropsychological assessment.

Limitations

- The small sample size limits the generalizability of the study findings to the broader population.
- Higher education level of participants may not reflect the educational diversity within the general US population.
- The participants' age ranges may not adequately represent the full spectrum of age-related cognitive variations in the US population.

Future Directions

- Focus on Bilingualism Effects: Study the cognitive effects of bilingualism in the Latinx community to differentiate between language proficiency and cognitive abilities in assessments.
- Address Educational Disparities: Consider the impact of varying educational backgrounds on neuropsychological test performance and use demographically adjusted scores (Choca et., al, 2009).
- Establish updated normative data for neuropsychological tests specifically tailored for bilingual individuals in the US.

References

References provided upon request