

# Spanish Translation and Normative Data for the Dementia Rating Scale, Second Edition.

**Strutt, Adriana M., Ayanegui, Ingrid G. & York, Michele K.**  
Baylor College of Medicine, Department of Neurology, Houston, Texas

## Neuropsychology and the Spanish speaking community

- As of 2003, 51% of the Hispanic community living in the US fell within the 55-64 year age range and these numbers continue to rapidly increase.<sup>1</sup>
- With large numbers of Hispanic individuals in this age group, one can predict that there will be an increasing number of geriatric Hispanics at high risk for cognitive decline.
- According to the Alzheimer's Association, more than 5.5 million cases of dementia have been identified in the US as 1 in 10 individuals over the age of 65 is affected with a progressive dementing condition.
- Research has documented that Hispanics are 8 times as likely to experience a dementing illness due to common health related risk factors such as hypertension, diabetes, and stroke.<sup>2</sup>
- There are currently 200,000 Hispanics in US diagnosed with Alzheimer's disease (AD).
- Exponential growth of 600% has been reported by the Alzheimer's Association with an expected 1.2 million Hispanics diagnosed with AD by 2050.
- Studies have revealed that most Hispanic individuals attribute neurological impairments to the process of normal aging.<sup>3</sup>
- The need to provide appropriate neuropsychological services to the elderly Hispanic community is evident.
- Presently, neuropsychological examinations cannot be appropriately administered to the Hispanic community living in the US due to the lack of normative data.

## Dementia Rating Scale, second edition

- The Dementia Rating Scale, second edition (DRS-2) is a brief, yet multifaceted screening tool that is widely used in the field of neuropsychology in the assessment of adults, ages 56-105.
- It is composed of 5 subscales that examine abilities of attention, initiation/perseveration, construction, conceptualization and memory; a total score for these subscales is also provided.
- Research has shown the utility of this measure in the English speaking community. However, normative data for the Spanish translation of the DRS-2 (ST-DRS-2) is not available.
- As the Hispanic population continues to grow in the US, neuropsychological measures must be normed and validated specifically for Spanish speakers in order to identify neurocognitive decline and provide accurate diagnostic services.

## Current Study

- The DRS-2 was translated (literal) to Spanish.
- ST-DRS-2 was administered to Hispanic community volunteers from Houston and the surrounding area.

**Table 1 - Demographics**

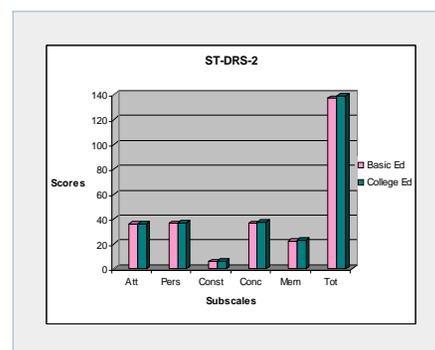
	Basic Ed	College Ed
Age	55.0 (2.940)	54.6 (2.74)
Gender %		
Male	46.20%	28.60%
Ethnicity		
Mexican	76.9%	42.9%
Handedness	0.9	0.9
Educ (yrs)	8	14.3
Yrs in US	(2.00)	(1.33)
(10.1)	23	12.4
(9.48)		
BDI-II	6.77 (5.72)	8.2 (5.52)

## Methods

- Thirty-three primarily Spanish-speaking community volunteers, ages 50-59 were administered the ST-DRS-2, the Beck Depression Inventory-Second Edition (BDI-II), and a structured clinical interview.
- Individuals with a medical history of stroke, TIAs, seizures, and head trauma were excluded from this study, as well as those found to be more than mildly depressed on the BDI-II (raw score of 20 or greater).
- Given the influence of education on neuropsychological performance, groups were stratified based on level of education (6-12 years of education and 13 or more years).

## Results

- Six participants were excluded from the statistical analyses due to cognitive impairment or moderate to severe symptoms of depression.
- Education level and years of residency in the US were not significantly correlated with the ST-DRS-2 sub-scores and total score.



- Furthermore, no significant differences between the education groups on the sub-scales and the total score of the ST-DRS-2 were found, suggesting that performance on this measure is not influenced by education, when 6 or more years have been obtained.
- Normative data for the ST-DRS-2, ages 50-59 with 6 or more years of education is presented below.

**Table 2 - Normative Data**

	Basic Ed	College Ed
<b>DRS-2</b>		
Attention	35.9 (0.95)	36.1 (1.07)
Perseveration	36.5 (0.88)	36.8 (0.58)
Construction	5.77 (0.44)	6.00 (0.00)
Concept	36.5 (1.85)	37.4 (1.55)
Memory	22.4 (1.33)	23 (1.18)
Total	137 (3.34)	139 (1.82)

## Future Research

- Data collection will continue for this age group.
- In addition, normative data for the ST-DRS-2 is being collected for adults ages 60-80, stratified by education.
- ST-DRS-2 measure and normative data will be made available to the academic/clinical community.

## References

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