Assessment of Health Literacy in Self-Reported Spanish-English Bilinguals

Amarilis Acevedo, Ph.D.

**Associate Professor, Center Psychological Studies
Nova Southeastern University, Fort Lauderdale, FL**

Introductory Comments

- Terms "Hispanic," "Latino," & "Individual of Latino Background" interchangeably

- Highly heterogeneous group, from over 20 different countries of reference, generational history, etc.

- Socio-demographic variables of Hispanics in the U.S. may not reflect those of the population in their countries of reference.

Hispanics in the U.S.

- 317 million: Total population of U.S.

- Latinos constitute 17% of the U.S. total population (i.e., ≈54 million)

- Latinos: Largest ethnic/racial group in the U.S.

Hispanics in the U.S. & Language

- After English, Spanish is the 2nd most spoken language in the U.S.

- ≈38 million people in the U.S. speak Spanish at home (i.e., 13% of residents ≥5 yrs of age).

- ≈ 36% of the U.S. Hispanic population is foreign-born.

- Among Spanish-speaking persons in the U.S., more than 13 million speak English "not well" or "not at all."

Source: Profile America Facts for Features, U.S. Census Bureau News, CB14-FF.22 (2014)

Hispanics in the US & Health Literacy

- Hispanics have the lowest average levels of HL among all racial/ethnic groups in the US, with 41% scoring in the below basic health literacy category, compared with only 9% of non-Hispanic whites.

- Among Hispanics, those who spoke only Spanish before starting school had the lowest average health literacy.

- Hispanics are less likely than other groups to participate in health screenings, and have more difficulty gaining access to health care, contributing to health disparities.

- Various factors contribute to Latino's low health health literacy including low socio-economic status, limited English proficiency, and cultural barriers.

Source: National Assessment of Adult Literacy (2003)

Some Factors Associated with Low HL

Individual's Charateristics

- Lower than high school educational attainment

- Low SES

- Low reading literacy (NAAL)

- Limited English Proficiency (LEP)

- Age: Older Adult?

Contextual Demands*

- Navigating current health environment

- Many "literacies" needed (e.g., computer, financial)

- Characteristics of medical environment

- Patient-clinican language concordance

- Demands to quickly absorb information, understand medical terms and tests, medication regimen, etc.

*Paasche-Orlow et al. (2006); Sudore et al. (2009)

Limited English Proficiency (LEP)

- Spanish speakers with LEP are less likely to undertand prescription labels and have lower HL than their English-speaking peers.

- A person with LEP is unable to obtain, process, and understand health-related information in English and to use the information to prevent diseases or take care of their own health and those around them.

- The combination of low HL + LEP places additional burden on the individual beyond either one alone.

Sources: Leyva et al. (2005); Sentell & Braun (2012)

Self-Reported Bilingualism
& Assessment of HL

Participants in Bilingual Study

- Sample: 29* self-declared English-Spanish bilinguals who reported that they speak, read, and/or think in both English and Spanish.

- Psychometric assessment of oral comprehension & reading fluency in both English & Spanish was performed at T1 (n=14) or T2 (n=15)

- T1 to T2 Interval: 0y+8m – 1y+6m

- Place of birth (n = 13 countries)

*Target sample = 42 participants; 13 were lost to follow-up

T1 & T2: Health Literacy, Cognitive Assessment & Other Procedures

➢ T1: Completed TOFHLA-Spanish, SAHLSA, FLIGHT/VIDAS-Spanish, & Cognitive Battery-Spanish

➢ T2: Completed TOFHLA-English, REALM, FLIGHT/VIDAS-English; Marin Acculturation Scale; & provided information about their perceived proficiency in both English and Spanish in four domains (i.e., speaking, understanding, reading, & writing)

Characteristics of Bilingual Sample

Variable	Mean (SD)
Age (T1)	43.00 (12.8)
Education (yrs)	13.31 (2.4)
Gender (% Female)	69% F
MAS: Language	12.38 (1.8) [Low: ≤ 14]
Media	10.41 (2.6) [Mod: 9-11]
Ethnic-Social	11.38 (2.4) [Low-Mod (≤11); (12-15)]
Total	34.17 (3.9)
Yrs Residing in US	19.55 (12.2)
Age Moved to US	23.45 (12.4)
% Life in US	0.44 (0.2)

MAS: Marin Acculturation Scale

Bilingual Sample (n=29)
Country Where Born & Raised

Country	Number Born	Number Raised
Colombia	5	5
Peru	5	5
U.S.	5	2
Puerto Rico	3	5
Mexico	2	2
Venezuela	2	3
Argentina	1	1
Dominican Republic	1	1
El Salvador	1	1
Guatemala	1	2
Panama	1	1
Nicaragua	1	0
Honduras	1	1

Bilinguals Tested in Spanish & English: Paired Sample Statistics

	Spanish Mean (SD)	English Mean (SD)	Correlation	p
FV HL Scale	26.64 (5.1)	25.96 (5.8)	0.81	<0.001
FV Numeracy Scale	14.54 (4.8)	13.57 (5.0)	0.76	<0.001
FV Fact-Conceptual	7.68 (2.1)	8.07 (2.3)	0.75	<0.001
FV Listening Comp.	9.2 (1.0)	9.1 (2.6)	0.28	0.15
TOFHLA Reading	46.79 (2.8)	42.00 (8.8)	0.76	<0.001
TOFHLA Numeracy	15.14 (1.3)	14.52 (2.0)	0.07	0.72
REALM	N/A	54.10 (8.5)	N/A	N/A
SAHLSA	46.28 (2.4)	N/A	N/A	N/A

Assessment of Bilingualism & Language Dominance

Ability	WJ III: Tests of Achievement	Batería III WM: Pruebas de Aprovechamiento
Reading	Test 2: Reading Fluency	Prueba 2: Fluidez en la Lectura
Oral Comprehension	Test 15: Oral Comprehension	Prueba 15: Comprensión Oral

WJ III: Woodcock-Johnson III
Batería III WM: Batería III Woodcock-Muñoz