Examining the Social Emotional Health Survey-Secondary for use with Latinx Youth

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Abstract

Culturally responsive assessment practices include validated measures appropriate for use with diverse populations. Considering the increasing population of Latinx students in U.S. schools, measures need co-validated English and Spanish (SEHS) language forms. This study examined the Social Emotional Health Survey–Secondary with Latinx students who completed a form in either Spanish or English. With a matched sample of 1,404 Latinx students across 113 California schools, the analyses examined the factor structure, measurement invariance, and latent-trait factor means of students who completed the SEHS in either Spanish or English. The factor structure was invariant across groups with some latent mean differences observed. Educational practice implications are considered.

Keywords: Latinx youth, Social Emotional Health Survey-Secondary, measurement invariance, factor analysis, social-emotional health

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According to the National Center for Education Statistics (2019), a projected 13.9 million students who identify as Hispanic or Latinx entered prekindergarten through Grade 12 public schools in the United States. As the enrollment of ethnically diverse students increases, consideration of cultural and linguistic factors is indispensable to provide inclusive education and services. The U.S. Department of Education (2016) supports the development of academic supports for dual-language[1] and English-language learners[2]. A complementary, concurrent need is to consider and foster the social and emotional well-being of dual- and English language learners.

Universal screening is suggested as one approach to identify and support the social and emotional needs of diverse learners (Castro-Olivo et al., 2011). The use of culturally responsive, linguistically valid measures facilitates the implementation of universal screening. Culturally responsive and sensitive practices provide a framework for implementing services in "effective, equitable ways for students of color" (Cressey, 2019, p. 53) and for appreciating the heterogeneity within and among ethnic groups. While several measures assess social and emotional needs, few are validated for Latinx dual- and English-language learners. Given that 71% of dual- and English-language learners speak Spanish at home, screening measures presented in Spanish must be carefully validated (Ruiz Soto et al., 2015).

One self-report screening measure is the Social and Emotional Health Survey-Secondary (SEHS-S; Furlong et al., 2014), which assesses a combination of interrelated positive mindsets that measure the higher-order construct of covitality. Covitality includes a range of social and

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[1] Dual language learners are students learning two or more languages simultaneously, or students learning a second language while continuing to develop their home language.
[2] English language learners are students who do not speak English fluently or students who are still learning English.

emotional dispositions associated with positive youth development. The SEHS-S is available in several languages. Multiple studies provide validity evidence supporting its use with U.S. students (e.g., Furlong et al., 2014) and internationally (e.g., Lee et al., 2016). With the large population of Latinx and Spanish-speaking students in U.S. schools, validation of the SEHS-S with Latinx students completing the form in English or Spanish warrants investigation. Although researchers have independently translated a Spanish SEHS-S form and examined its psychometric properties with Spanish-speaking adolescents in Spain (Piqureas et al., 2019), ongoing cross-cultural validation is essential (Valdivia Vazquez et al., 2015).

The present study contributes to SEHS-S body of research by examining evidence of its validity for U.S. Latinx students. These research questions are examined: (a) Is the SEHS-S invariant across Latinx students who complete the measure in Spanish compared to students who complete it in English? (b) Do Latinx students who complete the SEHS-S in Spanish report different mean scores than students who completed it in English?

Method

Procedure and Sample

As part of a federally funded grant, during the 2017-2018 school year, students with parental consent and assent across 113 California schools, located in 19 of the state's 58 counties, completed the SEHS-S in Spanish or English online. The online format explained the survey purpose and requested students to enter their school ID number. Simultaneously, teachers and researchers proctored the administration using a standardized script that further described the survey. From a population of over 100,000 students, we established a matched sample who identified as Latinx. In R, the MatchIt package (Ho et al., 2011) identified the best-matched sample between the Latinx participants who completed the survey in either Spanish or English.

Additional student-matching characteristics included gender, grade, free or reduced-cost lunch status, and parents' highest level of education. The resulting optimized match produced a sample of 1,404 students with 702 completing the measure in Spanish and 702 completing it in English. The sample distribution was balanced across grades (41.5% in Grades 11–12, 40.6% in Grades 9–10, and 17.9% in Grades 7–8) and gender (54.7% males, 45.3% females).

Measure

The SEHS-S is a 36-item self-report measure that assesses positive psychosocial traits. Prior research has validated a higher-order factor structure with 36 items loading onto 12 subscales that load onto four second-order positive social emotional subdomains:

1. *belief in self* (self-awareness, self-efficacy, persistence),

2. *belief in others* (family coherence, peer support, school support),

3. *emotional competence* (emotion regulation, self-control, empathy), and

4. *engaged living* (optimism, zest, gratitude),

which load onto a higher-order construct *covitality* (Furlong et al., 2020). Previously, structural invariance for the SEHS-S measurement model was found for Latinx students who completed the English form, compared with White students (You et al., 2015). Additionally, the present study's internal consistency reliability coefficients were high for both the English and Spanish forms, ranging from $\alpha = .89$ for belief-in-self to $\alpha = .93$ for engaged living with $\alpha = .96$ for covitality. SEHS-S items and related research information are available online (www.covitalityucsb.info).

Data Analysis

We conducted a CFA using Mplus software version 8.1 (Muthén & Muthén, 1998–2017) to examine the factor structure and invariance of Latinx students who completed the SEHS-S in

Spanish or English. Model fit was evaluated using the comparative fit index (CFI). Values above

.95 indicated good fit and values above .90 indicated adequate fit (Hu & Bentler, 1999). Root

mean square of approximation (RMSEA) and standardized root mean square residual (SRMR)

values less than .05 suggested good fit and values up to .08 suggested reasonable fit (Browne &

Cudeck, 1989).

The SEHS-S Spanish and English language forms were tested at different levels of

measurement invariance (Chen, 2007):

1. *configural invariance* (number of factors and pattern of fixed and freely estimated

   parameters hold across groups);

2. *metric invariance* (equivalence of factor loadings, indicating that respondents from

   multiple groups attribute the same meaning to the latent construct of interest); and

3. *scalar invariance* (invariance of both factor loadings and item intercepts, indicating

   that the meaning of the construct and the levels of the underlying items are equal

   across groups).

MI tests were completed at three factorial levels. Latent factor means across groups were

evaluated and compared.

Results and Discussion

Results indicate that all three levels of invariance found a good model fit for the first (i.e.,

36 items loading onto 12 subscales) and second level (i.e., 12 subscales loading onto four

subdomains) models. Adequate model fit was found for the third level (i.e., four subdomains

loading onto overall covitality factor). Thus, the SEHS-S structural model had invariance for

Latinx students regardless of language form (see Table 1). Having established MI for Spanish

and English forms, we compared group latent means (Byrne & Campbell, 1999). There were

significant latent mean differences across the four subdomains where respondents in Spanish were higher on all factors: *belief in self* ß = .182, *p* = .006), *belief in others* ß = .196, *p* = .014), *emotional competence* ß = .171, *p* = .007)*,* and *engaged living* ß = .193, *p* = .011). Further, there was a significant latent mean difference for *covitality* ß = .118, *p* = .003.

These observed latent mean differences could reflect what has been called the *immigrant paradox* (García Coll & Marks, 2012). First-generation youth tend to have better developmental outcomes (e.g., academics, social-emotional wellness) than second- and third-generation Latinx youths. However, a limitation of the present study is that the survey procedure did not include information about the generational status or other important demographic information. Hence, further research is needed to explore this relationship, especially given the heterogeneity of Latinx students. Practitioners employing the SEHS-S should recognize that similar constructs are measured by the English and Spanish forms, yet, students' responses had statistical differences. Additionally, as cross-cultural research examines linguistic considerations, Lomas (2019) suggests expanded systematic and comprehensive approaches to investigating meaning across languages to enhance understandings of existing similarities and differences. Overall, this study provides evidence of structural validity and comparability of the SEHS-S English and Spanish forms, which contributes to its broad literature base supporting its use for the universal monitoring of students' social-emotional well-being.

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Table 1

Measurement Invariance Results of First-Order Factors and Higher-Order Factor Covitality

Models	χ^2	df	$\Delta \chi^2$	Δdf	RMSEA	CFI	SRMR	ΔCFI
CFA								
Both	2299.07	578	—	—	.046	.953	.05	—
English	1591.26	578	—	—	.050	.944	.06	—
Spanish	1607.37	578	—	—	.050	.948	.05	—
MI Level 1								
Configural	2359.67	1056			.042	.965	.03	
Metric	2406.36	1080	45.69**	24	.042	.965	.04	.000
Scalar	2575.27	1104	168.91**	24	.044	.961	.04	.004
MI Level 2								
Configural	3284.66	1176			.051	.944	.06	
Metric	3338.40	1200	53.74**	24	.050	.943	.06	.001
Scalar	3688.98	1208	350.58**	8	.054	.934	.06	.001
MI Level 3								
Configural	3716.62	1188			.055	.933	.06	
Metric	3762.84	1212	46.22**	24	.055	.932	.06	.000
Scalar	3764.50	1215	1.66	3	.055	.932	.06	.000

Note. RMSEA: root-mean square error of approximation. SRMR: standardized root mean square residual. CFI: comparative fit indices; MI: measurement invariance

**$p < .01$.