

Cultural and Linguistic Effects on Diagnostic Testing in Spanish-Speaking Latin America

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Background

Our study focuses on how culture and language can affect diagnostic testing, specifically in Latin America. We aim to investigate these concepts by analyzing two diagnostic tests for differences in scoring and reliability with expectations to see lower scores and similar reliability for Latin American and Caribbean individuals when compared to individuals from culturally Western countries.

Methods

Participants: The total number of participants for this study is $N= 16,902$ with 7,255 taking the PHQ-9 and 9,620 taking the HCL-32. Participants were then separated into a Latin American and Caribbean, Spanish-speaking group and a culturally Western, English-speaking group for each test based on geographical location as seen in Figure 1.

Analyses: Statistical analyses were completed in R studio and Excel.

Results

The Latin American group showed significantly lower total scores ($M= 13.88$; $p=.006$) and lower internal consistency ($\alpha= 0.78$; $p=.056$) on the PHQ-9. The Latin American group also showed significantly lower scores ($M= 3.24$; $p= .023$) on the sunny subscale of the HCL-32 used to measure energetic/euphoric hypomanic symptoms.

Discussion

Based on our results, we believe differences in scoring and reliability may be related to cultural differences in Latin American and Caribbean countries. It could be that tests do not account for cultural differences such intense stigma and collectivism. Additionally, respondents who speak English as a second language may interpret item meanings differently and thus scoring may be impacted.