

ADAPTATION AND PSYCHOMETRIC PROPERTIES OF THE PATIENT HEALTH QUESTIONNAIRE (PHQ-9) AMONG INDIGENOUS ADULTS FROM THE PERUVIAN AMAZON



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INTRODUCTION

Depression assessment in Indigenous communities faces significant challenges due to linguistic diversity, low literacy levels, cultural differences, and limited access to mental health services. Studies have highlighted measurement challenges and potential bias when adapting instruments such as the Patient Health Questionnaire-9 (PHQ-9) for Indigenous populations, emphasizing the importance of cultural adaptation and rigorous psychometric evaluation.

OBJECTIVE

Adapting and evaluating the psychometric properties of the Patient Health Questionnaire-9 (PHQ-9) in adults aged 50 years or older belonging to the Shawi indigenous people of the Peruvian Amazon.

Instrument Adaptation

Several items presented comprehension problems, requiring content adaptation, language simplification and cultural adjustments based on the local worldview of the Shawi ethnic group.



METHODOLOGY

A cross-cultural adaptation of the PHQ-9

Sample

- 401 adults aged 50 and older
- From the Shawi ethnic group, Loreto, Peruvian Amazon

Qualitative adaptation process

- Identification of comprehension difficulties
- Linguistic simplification
- Cultural adjustments based on local worldview
- Cognitive interviews
- Focus groups

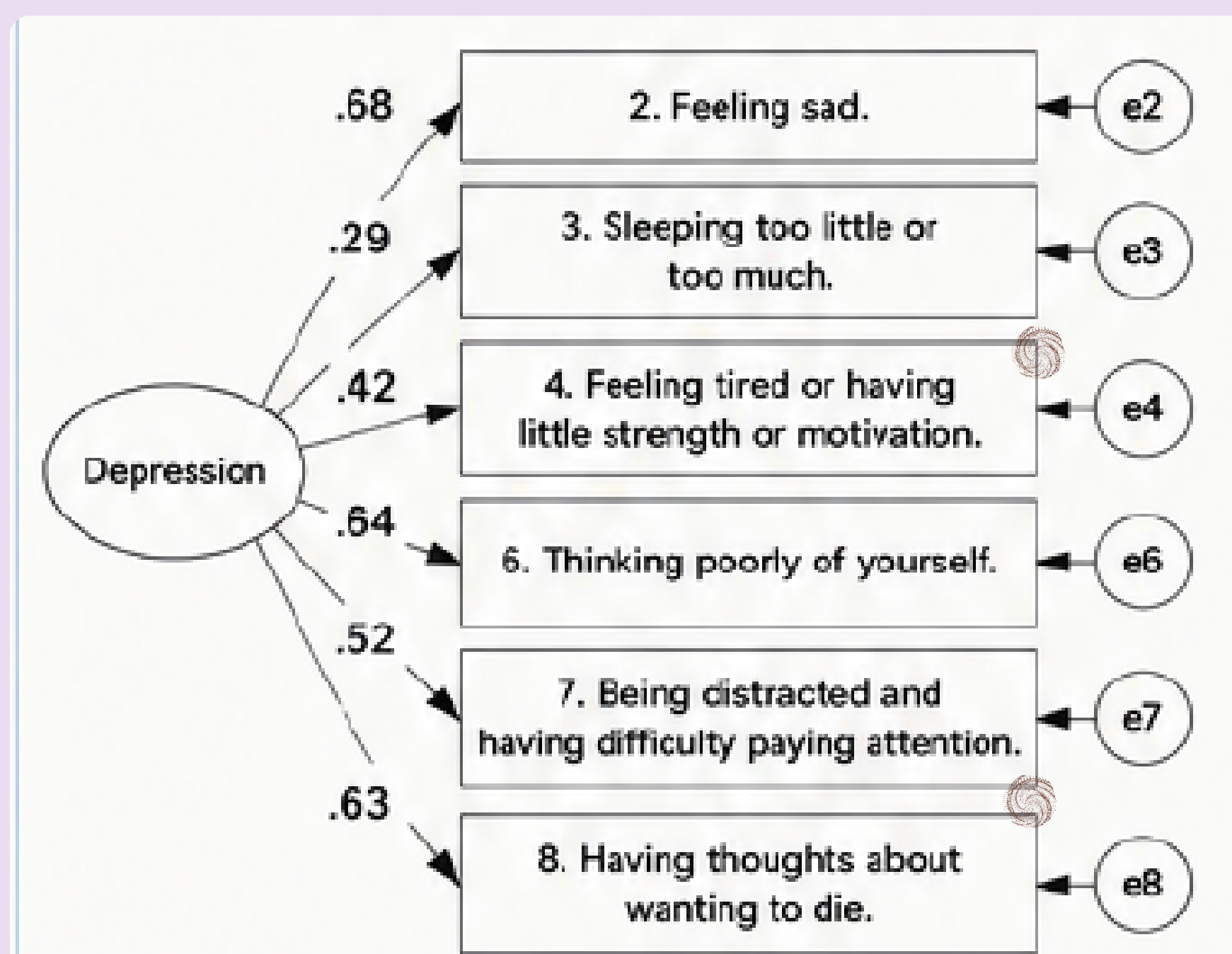
Quantitative psychometric analysis

- Confirmatory factor analysis (CFA)
- Measurement invariance across sex
- Internal consistency estimated using omega coefficient.

KEY FINDINGS

- Comprehension difficulties were identified in several items, requiring specific linguistic and cultural adaptations for the Shawi population.
- Confirmatory factor analysis indicated the need to remove items 1, 5, and 9, resulting in an acceptable fit for a unidimensional six-item model.
- Model fit indices:
 $\chi^2(9)$ 30.48, $p < .001$; CFI-.951; RMSEA-.077; SRMR-.048.
- Factor loadings ranged from .29 to .68.
- Multigroup analyses showed measurement invariance across sex, indicating comparable measurement properties for men and women.
- Internal consistency was adequate ($\omega = .71$).

DETAILED RESULTS



Note: Items removed were 1, 5, and 9.



Items removed from the original PHQ-9

- Item 1: Little interest or pleasure in doing things
- Item 5: Poor appetite or overeating
- Item 9: Thoughts that you would be better off dead, or of hurting yourself in some way

These items were removed because the construct was already captured by other items.

Conclusion: The adapted PHQ-9 shows acceptable psychometric properties in this Indigenous Amazonian sample. However, the removal of three items and the presence of moderate factor loadings indicate the need for further refinement. Additional validation studies in other Indigenous populations are required before considering the instrument as a finalized screening tool. The results highlight the importance of iterative, culturally tailored psychometric assessments in underserved populations.

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