Title

Analysis of the dimensional structure of the Patient Health Questionnaire-9 (PHQ-9) in undergraduate students at a public university in Brazil

Abstract

Background: The prevalence of mental health-related problems has increased in recent years, especially among young adults, such as university students. Several measurement instruments have been developed to identify individuals at risk for depression, such as the Patient Health Questionnaire-9 (PHQ-9). However, different dimensional structures of the PHQ-9 can make it difficult to interpret and compare research results. To analyze the dimensional structure and convergent validity of the PHQ-9 in university students. Methods: This is a cross-sectional study developed with 3163 students enrolled in different courses at a university in southern Brazil. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed to identify the most parsimonious and best-fitting model. Convergent validity was verified through the significant relationship ($p < 0.05$) between theoretically related constructs (sleep quality, alcohol consumption, and physical activity practice). Results: The EFA resulted in two models (unidimensional and two-dimensional), with better indices for the two-dimensional model. In the CFA, both the unidimensional and the two-dimensional models presented satisfactory fit indices that were higher for the unidimensional model. Limitations: The analysis of convergent validity is limited by the absence of a gold standard for comparison. Conclusions: This study provided support for the unidimensional structure of the PHQ-9, with adequate convergent validity, among university students. © 2024

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activity; physical inactivity; Pittsburgh Sleep Quality Index; sleep quality; undergraduate student; university; university student; article; Brazil; depression; factor analysis; mental health; prevalence; psychometry; young adult

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