Assessment of Psychometric properties of the Cannabis Abuse Screening Test (CAST) among a sample of Moroccan Cannabis Users

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Abstract

Cannabis use is widespread in Morocco, particularly among young people and young adults, raising health concerns due to its significant physical, mental and societal effects. The early detection of problematic use of this substance is a fundamental requirement in the public health context. The Cannabis Abuse Screening Test (CAST) is an assessment tool commonly used to identify patterns of cannabis use associated with adverse health effects. The objective of this study is to investigate the psychometric properties of the Moroccan Arabic dialect version of the CAST among cannabis users.

370 participants from an addictology center in the city of Fez was selected and divided into two phases. In the first phase, an exploratory factorial analysis of 150 participants was conducted to examine the factorial structure of the scale. Then, in the second phase, a validation sample of 220 people was subjected to confirmatory factor analysis to validate the structure identified. All statistical analyses were carried out using the R software.

The conducted CFA revealed a consistent three-factor structure that exhibited a favorable overall fit ($\chi 2/df = 2.23$, RMSEA = 0.07, SRMR = 0.02, CFI = 0.98, NFI = 0.97). The localized parameters also showed contentment, with standardized factor loadings spanning from 0.72 to 0.88. The model demonstrated strong reliability and convergent validity, substantiated by composite reliability (CR) values ranging from 0.76 to 0.88, and average variance extracted (AVE) values ranging from 0.62 to 0.78. Moreover, the square roots of AVE were higher than the correlations between factor pairs, and the heterotrait-monotrait (HTMT) ratio of correlation values stayed below 0.85, signifying an acceptable level of discriminant validity.

Analysis of the psychometric properties of the Moroccan version of the CAST yielded positive results, confirming its credibility as a reliable instrument for detecting problematic cannabis use.

Key Words: cannabis, CAST, addictology, psychometrics, validity

Professional Biography

Hicham EL MALKI is a 35-year-old doctoral student in the fourth year of his thesis at the Epidemiology and Health Sciences Research Laboratory, Sidi Mohamed Ben Abdellah University, Fez, Morocco. His thesis involves developing, implementing and evaluating a School-Based substance abuse prevention programme for secondary school students.

Recent Publications

- El-Ammari A, Malki HE, Moutawakkil SG, et al (2023) Validation of the Center for Epidemiologic Studies Depression Scale (CES-D) in a Moroccan sample with substance use disorder. In Review

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