

Profile of Mood States Factor Structure Does Not Accurately Account for Patients with Chronic Pain

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Abstract

OBJECTIVE: The need for measuring emotional functioning in patients with chronic pain was recognized decades ago. The Initiative on Methods, Measures, and Pain Assessment in Clinical Trials (IMMPACT) proposed the Profile of Mood States for this purpose. However, to date, its factor structure has not been confirmed in these patients. **METHODS:** We set out to use confirmatory factor analysis to test the theoretical structure of seven factors: Tension-Anxiety, Depression-Dejection, Anger-Hostility, Vigor-Activity, Fatigue-Inertia, Confusion-Bewilderment, and Friendliness. **PARTICIPANTS:** The sample consisted of 588 Spanish adult patients with chronic pain. **RESULTS:** The original structure could not be verified according to the obtained fit indices (e.g., root-mean-square error of approximation = 0.11). For this reason, we carried out a second study that relied on exploratory factor analysis to evaluate the structure in half of the cases and confirmatory factor analysis to validate it in the other half. The factor structure detected in the exploratory factor analysis was not satisfactory, nor could it be validated with confirmatory factor analysis (e.g., normed fit index between 0.54 and 0.56). **CONCLUSIONS:** The factor structure of the Profile of Mood States could not be satisfactorily confirmed. Consequently, other mood measures and shorter, optimized versions of the POMS are discussed as possible alternatives. © The Author(s) 2021. Published by Oxford University Press on behalf of the American Academy of Pain Medicine. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com.

Author keywords

and Pain Assessment in Clinical Trials (IMMPACT); Chronic Pain; Confirmatory Factor Analysis; Exploratory Factor Analysis; Initiative on Methods; Measurement; Profile of Mood States (POMS)