

Validation of the Spanish-language version of the Montreal Cognitive Assessment test in adults older than 60 years.

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Abstract

INTRODUCTION: Few studies have validated the Spanish-language version of the Montreal Cognitive Assessment (MoCA-S) test in Latin American populations.

OBJETIVE: To evaluate the psychometric properties and discriminant validity of the MoCA-S in elderly patients in Santiago de Chile.

METHODS: 172 individuals were grouped according to their clinical diagnosis based on the Clinical Dementia Rating (CDR) scale as follows: amnesic mild cognitive impairment (aMCI; $n\pm 24$), non-amnesic MCI (naMCI; $n\pm 24$), mild dementia ($n\pm 20$), and cognitively normal ($n\pm 104$). Participants were evaluated with both the MoCA-S and the Mini-Mental State Examination (MMSE) to determine the discriminant validity of the MoCA-S.

RESULTS: Mean age and years of schooling were 73 ± 6 and 11 ± 4 years, respectively, with no significant intergroup differences. The MoCA-S displayed good internal consistency (Cronbach's α : 0.772), high inter-rater reliability (Spearman correlation coefficient: 0.846; $P < .01$), and high intra-rater reliability (test-retest reliability coefficient: 0.922; $P < .001$). The MoCA-S was found to be an effective and valid test for detecting aMCI ($AUC\pm 0.903$) and mild dementia ($AUC\pm 0.957$); its effectiveness for detecting naMCI was lower ($AUC\pm 0.629$). The optimal cut-off points for aMCI and mild dementia were < 21 and < 20 , respectively, with sensitivity and specificity rates of 75% and 82% for aMCI and 90% and 86% for mild dementia. The level of education had a great impact on scores: as a result, 2 points were added for patients with less than 8 years of schooling and one point for patients with 8-12 years of schooling (MoCA-S1-2). The MoCA-S1-2 showed significantly greater discriminant validity than the MMSE for differentiating aMCI from dementia.

CONCLUSIONS: The MoCA-S1-2 is a short, easy-to-use, and useful test for diagnosing aMCI and mild dementia.