Construct Validity and Psychometric Properties of the Tamil (India) Version of Montreal Cognitive Assessment (T-MoCA) in Elderly

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Running Title: Construct Validity and Psychometric Properties of T-MoCA

Abstract

Background: The Montreal Cognitive Assessment (MoCA) is a neuropsychological cognitive tool developed and adapted widely in various languages for screening mild cognitive impairment (MCI).

Objectives: The present study aimed to evaluate the psychometric properties of the Tamil (India) Version of MoCA (T-MoCA) and further examine the construct validity of the tool.

Method: The authors conducted internal consistency, test-retest, sensitivity-specificity, and construct validity using 233 Tamil-speaking elderly participants. The inclusion criteria of the study participants were 0.5 or less than 0.5 scores in the Clinical Dementia Rating scale (CDR). Further, T-MoCA was used to screen MCI.

Results: The result showed that the T-MoCA had high internal consistency (0.83) and high test-retest reliability (0.92). Receiver operating characteristic (ROC) analyses showed an area under the curve (AUC) of 0.91 (95% CI 0.87-0.94) for detecting MCI. Furthermore, the optimal cut-off score to detect MCI was 24, accommodated a sensitivity and specificity of 88.4% and 77.9%, respectively.

Conclusions: The Tamil (India) version of the MoCA maintained its core diagnostic properties, furnishing it a valid and reliable tool for the screening of MCI. Also, its latent dimensions help to understand the elders' cognitive function in a better way.

Keywords: *T-MoCA, reliability and validity, cut-off score, factor analysis, elderly*