

Validation of a modified MOCA translation for use among Arabic-speaking immigrants in the U.S.

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Abstract

Background: The only validated, widely-used dementia screen that has Arabic language norms/cutoffs is the Montreal Cognitive Assessment (MoCA). Yet, Arabic translations of the MoCA vary across countries. This study considers various Arabic translations of the MoCA, and presents a modified translation for use among Arabic-speaking immigrants in the U.S.

Method: The modified translated version of the MoCA was administered to 32 Arabic-speaking adults age 65+ living in metro-Detroit. Eight (25%) had an ADRD diagnosis. To assess the reliability of the MoCA, each item was standardized and Cronbach's alpha was calculated. To assess the similarity of ADRD and non-ADRD respondents with regards to each MoCA item as well as with regards to demographics we used Fisher's exact test for binary variables and t-test for continuous variables. Ordinary least squares models were used to examine how an ADRD diagnosis predicts the MoCA score, adjusting for demographics.

Result: The mean age of the sample is 73 years old. Sixty-two percent (62%) are female and 28% have a high school education or more. The alpha was acceptably high at .87. The MoCA item-level scores for respondents with and without ADRD diagnoses showed that all respondents correctly identified the picture of a camel. There are also five items for which none of the ADRD respondents gave correct responses: trail-making, verbal fluency F, both abstraction questions, and the cube-copy test. Bivariate analyses further indicate that ADRD respondents are older than non-ADRD respondents ($p < .001$). There is no significant difference in gender or education level. Those with ADRD diagnosis scored lower overall on the MoCA ($\beta = -.35$; $se = .37$), with 58% of the variation explained by the diagnosis and demographics. We interpret the result as a small effect size as indicated by the Cohen's heuristic for the difference between means (0.2-0.49).

Conclusion: The Arabic language MoCA is able to distinguish respondents with an ADRD diagnosis. Decision points about translations should consider national contexts to maximize equivalencies across samples.