

Language and Immigrant Status Differences in Neuropsychological Performance among Middle Eastern and North African Older Adults in Detroit

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Abstract

Background: Despite being one of the fastest growing ethnic groups in the U.S., little is known regarding neuropsychological testing among Middle Eastern and North African (MENA) older adults. This study aimed to examine the effects of language of test administration (i.e., English or Arabic) and immigrant status on neuropsychological performance among MENA older adults.

Method: Participants were from the Detroit Area Wellness Network-COVID Study and were included if they identified as MENA and did not have dementia ($N = 199$). Participants completed questionnaires and brief neuropsychological tests (i.e., CERAD word list, animal fluency) over the phone. Participants were coded into three groups: U.S. born, tested in English ($n = 35$); foreign born, tested in English ($n = 93$); and foreign born, tested in Arabic ($n = 71$). A series of regressions with foreign-born participants tested in English as the reference group examined group differences in animal fluency, immediate memory, and delayed memory across minimally adjusted (i.e., age, sex/gender), education-adjusted (i.e., age, sex/gender, education), and fully adjusted (i.e., age, sex/gender, education, marital status, homeownership) models.

Result: Compared to both English testing groups, foreign-born participants tested in Arabic were more likely to be married, were less likely to own homes, and had less education. Foreign-born participants tested in English had less education than U.S.-born participants tested in English but did not differ on other covariates. In minimally adjusted models, there were language differences in animal fluency, but not episodic memory, such that foreign-born participants tested in Arabic performed worse than foreign-born participants tested in English. This language difference was eliminated after adjusting for education. Performance differences as a function of immigrant status were identified for all cognitive measures, such that foreign-born participants tested in English performed worse than U.S.-born participants tested in English. These differences were attenuated but not eliminated in adjusted models.

Conclusion: These results support the comparability of neuropsychological tests administered in English versus Arabic, as language differences were limited and explained by education. Future studies should examine modifiable contributors to

cognitive differences between U.S.- and foreign-born MENA older adults, such as educational quality and immigrant stress.