Mediterranean Diet and Brain Health in Hispanic or Latino Adults
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Data from observational studies and a small number of interventional studies have shown that certain dietary patterns are associated with brain health and preserved cognition. The Mediterranean diet, the most commonly examined dietary pattern across cohorts of individuals from different backgrounds, has been found to be associated with mortality, cardiovascular health, and cognitive aging, but possibly depending on race and ethnicity and sex. Moustafa et al specifically examined the association of adherence to the Mediterranean diet with cognitive function among a diverse cohort of Hispanic or Latino participants in the Hispanic Community Health Study/Study of Latinos and the Study of Latinos-Investigation of Neurocognitive Aging.

In their cohort study, Moustafa et al assessed the dietary patterns among 6321 participants (oversampled for those 45-74 years of age; 56 years at first assessment) from the mean of two 24-hour dietary recalls (conducted 30 days apart) to calculate a Mediterranean diet score (MDS). Cognition was assessed during the same period of diet assessment between 2008 and 2011 and between 2015 and 2018. The cognitive tests included the Brief Spanish-English Verbal Learning Test (B-SEVLT) Sum, B-SEVLT Recall, word fluency, and Digit Symbol Substitution Test. Participants with high adherence (MDS, 7-9 points) and moderate adherence (MDS, 5-6 points) were less likely to be born in the US, to use English as the preferred language, or to have health insurance. The high adherence group also had significantly better vascular risk profile compared with the low adherence group (MDS, 0-4 points). B-SEVLT Sum and Recall and global cognition (created using mean z scores for each cognitive test) scores were better at both assessments for the high adherence vs the low adherence groups. Over the 7-year follow-up, high adherence to the Mediterranean diet was associated with a slower decline in B-SEVLT Sum and Recall, but not in other measures of cognition.

Findings of this study were compelling and showed that the association between Mediterranean diet and cognitive brain aging was also observed in the Hispanic or Latino population living in the US. The association found between Mediterranean diet adherence and better performance with regard to episodic learning is particularly noteworthy and in line with data that suggested an association between Mediterranean diet adherence and cognitive domains most often affected in Alzheimer disease. Available brain imaging data seem to also suggest that the neuroanatomical features most favorably associated with Mediterranean diet adherence are those most affected in Alzheimer disease, such as the hippocampus and posterior cingulate cortex, total brain volume, and amyloid-β load on brain positron emission tomography. Although there is evidence to suggest the Mediterranean diet is associated with lower vascular risk, is rich in antioxidants, and lowers inflammatory biomarkers, all of which are mechanisms that contribute to brain health, the exact mechanisms linking the Mediterranean diet to better brain structure and function (specifically for those most affected in Alzheimer disease) are not known. However, one cannot help but wonder whether, by relying on the 24-hour dietary recall, these studies may have inherently selected for those who had better memory function and the neuroanatomical substrates to maintain memory. We must continue to remind ourselves that association does not prove causation.

The observation that participants with higher adherence were less likely to be born in the US, use English as the preferred language, or have health insurance is also noteworthy and support previous studies that showed the dietary acculturation of the Hispanic or Latino population to the US society was time dependent and associated with the adoption of less healthy dietary habits.
findings also offer a unique opportunity to target diet-related mechanisms as one strategy to modify the age-related risk of dementia.

Overall, this study by Moustafa et al supports the existing literature and suggests that higher adherence to the Mediterranean diet is more common among recent immigrants to the US and is associated with better cognitive function among a diverse cohort of Hispanic or Latino adults. However, given that participants in the high adherence group were more likely to have higher incomes, less likely to smoke or have hypertension, and more likely to engage in vigorous exercise and have lower body mass index, it is likely that the sum of these traits and behaviors is what offers cognitive benefits rather than just adherence to the Mediterranean diet. Nonetheless, the accumulating evidence suggests that adoption of the Mediterranean diet as part of preventive measures to reduce the risk of cognitive decline and dementia should be a public health priority.

ARTICLE INFORMATION
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REFERENCES