

Adherence to a Mediterranean Diet is associated with physical and cognitive health: a cross-sectional analysis of community-dwelling older Australians

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Normal cognitive function is an essential component of healthy aging, affecting functional independence, risk of institutionalisation and health-related quality of life. Mobility disability, physical frailty, and the inability to perform routine daily activities are important risk factors for mild cognitive impairment (MCI) or dementia. Furthermore, the ability to independently perform instrumental activities of daily living (iADLs) is compromised in patients with MCI or dementia. Lifestyle management such as nutrition, targeted at reducing the risks associated with functional and cognitive decline, is essential in delaying the onset of these conditions. Emerging evidence suggests that adherence to anti-inflammatory dietary patterns, such as a Mediterranean diet (MedDiet), may play an important protective role against cognitive decline and dementia risk, whilst preserving functional status.⁽¹⁾ This cross-sectional study aimed to explore the independent associations between MedDiet adherence, cognitive risk, and functional status in community-dwelling older adults living in Australia. Older Australians who were permanent residents of Australia, free from dementia or cognitive decline and could independently complete an anonymous online survey in English were invited to participate. Participants were recruited via social media platforms and by networking with Local Government Councils from February 2022 to May 2022 requesting voluntary participation in an online survey. The online questionnaire was divided into six separate sections and included previously validated tools including the Mediterranean Diet Adherence Screener (MEDAS)⁽²⁾ for assessment of adherence to a MedDiet; a modified Lawton's iADL scale for the assessment of functional ability⁽³⁾ and risk of cognitive impairment was assessed using the AD8 dementia screening intervention.⁽⁴⁾ Univariable and multivariable linear regression analyses were used to investigate the independent association between adherence to a MedDiet, cognitive risk and iADLs. A total of $n = 303$ participants were included in the final analyses (70.4 ± 6.2 years; females: $n = 205$; males: $n = 96$). Adherence to a MedDiet was positively associated with functional ability ($\beta = 0.172$; CI [0.022, 0.132], $p = 0.006$) independent of age, gender, BMI, smoking status, sleep duration, physical activity duration, and diabetes status. Furthermore, MedDiet adherence was inversely associated with cognitive risk ($\beta = -0.134$; CI [-0.198, -0.007], $p = 0.035$) independent of all covariates. Moreover, compared with all individual MEDAS questions, a greater proportion of participants who met the serve size and frequency of consumption criteria for nut consumption were more likely to be free from cognitive risk (achieved: 38.9%; not achieved: 60.1%; $p = 0.003$). This cross-sectional analysis shows that adherence to a MedDiet is associated with healthy physical and cognitive aging. Nevertheless, exploration of these findings in vulnerable populations, using longitudinal analyses and controlling for important confounders to ascertain the direction of the relationship is warranted.

References

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