Abstract

High Adherence to Mediterranean Diet and Fish Intake Are Inversely Associated with Depressive Symptoms in Older Women: Findings from the Cross-Sectional NutBrain Study †

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Abstract: Background and objectives: Data on the association of Mediterranean diet and food groups with depressive symptoms in older men and women, are scarce. The aim of this study was to examine the cross-sectional association of adherence to the Mediterranean diet and its food components with depressive symptoms in an Italian cohort of older men and women. Methods: We included individuals aged ≥65 years from the cross-sectional NutBrain study, recruited in 2019–2023, who answered a 102-item semi-quantitative food frequency questionnaire (SFFQ), which was used to calculate the Mediterranean diet score (MDS) proposed by Trichopoulou. Depressive symptoms were assessed using the Center for Epidemiologic Studies Depression Scale (CES-D). The main outcome measure was a CES-D score of 16 or more. Statistical analyses were performed using a logistic regression model controlling for potential confounders. Results: A total of 325 men and 473 women (mean age 73.5 ± 6.2 years, 50.1% low socioeconomic status, 23.9% lived alone) were analysed. The frequency of depressive symptoms was 19.8% (8.0% in men and 27.9% in women). Women with depressive symptoms were less compliant with the MDS and consumed fewer vegetables and fish compared to women without depressive symptoms (p < 0.05). No differences were observed in men. Multivariate logistic regression shows that high adherence to the MDS (highest tertile) significantly reduced the odds of having depressive symptoms by 54.6% (OR 0.454, 95%CI 0.266–0.776) in the whole sample, independent of covariates. When we stratified the analysis by sex, we found an inverse association between high adherence to the MDS and depressive symptoms in women (OR 0.385, 95%CI 0.206–0.719) but not in men (OR 0.828, 95%CI 0.254–2.705). Among the MDS components, fish consumption (OR 0.444, 95%CI 0.283–0.697) and MUFA/SFA ratio (OR 0.579, 95%CI 0.345–0.971) above the median were inversely associated with CES-D only in women. Women who ate fresh fish (not canned) 2–3 times/day and ≥3 times/week had 43.4% and 70.0% lower odds of depressive symptoms, respectively, than those who ate fish <2 times/week. Fish consumption was not associated with depression in men. Discussion: This study confirms that older women have higher depressive symptoms than men. Furthermore, high adherence to the Mediterranean diet and high fish consumption were associated with lower depressive symptoms in women but not in men. Our findings provide further evidence that improved advice on healthy eating can benefit mental health, especially in older women.
Keywords: depressive symptoms; older adults; Mediterranean diet; fish intake; cross-sectional study

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