

The potential role of diet on mental health outcomes in a Mediterranean cohort

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Background:

The prevalence of mental and sleep disorders is rising globally generating great costs to medical health care and several modifiable risk factors, including diet, has been recognized as major contributors. An escalation of overnutrition as a consequence of the transition from traditional dietary patterns, like Mediterranean diet, in favor to Western-like dietary patterns, rich in high-calorie processed and ultra-processed foods and deprived from bioactive components, has been observed.

Methods:

The demographic and dietary habits of 2044 adults living in southern Italy were analyzed. Food frequency questionnaires (FFQs) were used to assess dietary intake and adherence to the Mediterranean diet. Polyphenol content in foods was estimated using the Phenol-Explorer database. Sleep quality was assessed using the Pittsburg Sleep Quality Index (PSQI), while cognitive status using the Short Portable Mental Status

Questionnaire (SPMSQ). Multivariate logistic regression analyses were used to test the associations.

Results:

Higher adherence to the Mediterranean diet was significantly associated with adequate sleep quality and inversely associated with impaired cognitive status. When considering bioactive components of the Mediterranean diet, a significant inverse association between a higher dietary intake of lignans and inadequate sleep quality was found. Similarly, a significant inverse association between higher dietary intake of total flavonoids and impaired cognitive status was observed.

Conclusions:

The evidence indicates that diet Mediterranean diet together with its bioactive components may exert plausible effects toward cognitive health and sleep quality. There is a need to translate this evidence and to advocate healthy dietary practices as strategies for the prevention of these disorders.

Key messages:

- Higher adherence to the Mediterranean diet rich in bioactive compounds is recognized as healthy dietary practice associated with mental and sleep disorders.
- Dissemination of the benefits of adherence to the Mediterranean may contribute to the control of the rising prevalence of mental and sleep disorders.