Study of 4,000 Adults Reveals Mediterranean Diet Success Looks Different for Women and Men

An international team of researchers assessed adherence to the Mediterranean Diet (MedDiet) and related lifestyle behaviors using the Mediterranean lifestyle (MedLife) Index, and examined gender-specific associations with physical activity, sleep, mental health, social participation, and perceived barriers.

Study

The team conducted an international, cross-sectional online survey in summer 2024 within the European Union (EU) Partnership for Research and Innovation in the Mediterranean Area (PRIMA) program. After screening >8,000 initial responses for completeness, duplicates, and implausible values, 4,010 adults from 10 Mediterranean and neighboring countries (including both Mediterranean [MC] and non-Mediterranean [NMC] regions) were ultimately included.

Adherence was measured with the 28-item MedLife Index covering food consumption, dietary habits, and behaviors. Measures included the International Physical Activity Questionnaire-Short Form (IPAQ-SF) to derive weekly Metabolic Equivalent of Task (MET) minutes; the Pittsburgh Sleep Quality Index (PSQI) and Insomnia Severity Index (ISI) for sleep; the Depression Anxiety Stress Scales-21 (DASS-21) for mental health; the Short Life Satisfaction Questionnaire-Lockdown (SLSQ) and the Short Social Participation Questionnaire-Lockdowns (SSPQL) for well-being and social ties; and the Short Technology-Use Questionnaire-Lockdowns (STuQL) for device use.

Perceived barriers were captured with the MedDiet Barriers Questionnaire (MBQ). Demographics (including Body Mass Index [BMI]) were recorded. All data were self-reported, introducing potential recall and social desirability biases. The cross-sectional design limits causal interpretation of observed relationships.

Data collection complied with the General Data Protection Regulation (GDPR) and the Federal Data Protection Act (BDSG); ethics approval and informed consent were obtained. Analyses used Statistical Package for the Social Sciences (SPSS) 25.

Group differences were tested with chi-square (χ^2) and Mann-Whitney tests; associations were assessed using Spearman's rank-order correlations with significance at $p < 0.05$, and the survey was run in seven languages.

Findings

Participants were predominantly young to middle-aged adults (mean age ≈ 37 years), and 59.5% were female. Overall, MedLife scores did not differ by gender, but pathways to similar totals diverged across cultures. Women showed better adherence to core Mediterranean food choices, as they ate less red and processed meat, used olive oil and herbs more consistently, and reported higher vegetable intake.

Men more often met guidance for fish or seafood, legumes, and moderation of sweets. In dietary habits, item-level patterns split: Women more often chose whole grains, reduced sugar in beverages, and limited between-meal snacking, whereas men reported greater water or infusion intake, salt limitation, and culturally typical moderate wine consumption, particularly in Mediterranean societies.

On lifestyle behaviors, men scored higher, as they were more frequently physically active, engaged in collective sports, and socialized more with friends. Correspondingly, men displayed better sleep efficiency and shorter sleep latency, while women reported longer sleep latency, poorer subjective sleep quality, longer sleep duration (interpreted as compensatory for poorer sleep quality), and higher insomnia severity. Technology use was higher among women.

Psychological profiles also differed: Women reported higher depression, anxiety, and stress on the DASS-21 and greater demand for psychosocial, physical, and nutritional support; men were more often in the normal symptom range and more likely to report no need for support.

These patterns may reflect both biological factors (e.g., hormonal influences on sleep and mood) and sociocultural norms (e.g., men's reluctance to seek help). Despite these contrasts, practical relevance emerges from the correlational pattern: higher MedLife scores aligned with healthier daily rhythms.

MedLife correlated positively with IPAQ-SF activity ($r \approx 0.30$), daily social participation ($r \approx 0.23$), and sleep satisfaction ($r \approx 0.18$), and correlated negatively with insomnia ($r \approx -0.14$), stress ($r \approx -0.09$), anxiety ($r \approx -0.08$), and depression ($r \approx -0.12$), all $p < 0.001$ in two-tailed tests. That means people who move more, feel socially connected, and sleep better also tend to sustain MedDiet behaviors.

Importantly, women perceived more barriers overall on the MBQ, notably attitudinal obstacles, gaps in knowledge, and taste dislikes, whereas men more often cited low motivation and medical reasons. Socioeconomic and cultural factors across regions likely shaped these barriers.

Socio-demographic patterns added context: women clustered in normal BMI or underweight ranges ($p < 0.001$) and held bachelor's degrees more often; men were more often overweight, retired, and cigarette smokers, while women were more likely to smoke shisha. These BMI differences reflect associations, not causality.

Taken together, these findings argue for gender-sensitive strategies: For example, university and workplace programs for women that pair nutrition education and sleep support with peer communities, and activity-anchored, skills-based cooking and hydration prompts for men that leverage sport and social routines while accounting for regional food environments and cultural norms across the ten participating countries. Recommendations remain tentative pending longitudinal validation.

Conclusion

To summarize, in a large, multinational sample, adherence to the MedLife was similar between women and men, but the levers differed. Women excelled in MedDiet food choices yet faced poorer sleep and higher psychological burden, while men led in physical activity and social participation. Because higher MedLife scores tracked with more movement, better sleep, and lower distress, interventions should integrate diet with daily rhythms.

Public health efforts that acknowledge gender-specific barriers, like knowledge and taste for women; motivation and medical constraints for men, can meaningfully improve impact in campuses, clinics, and workplaces despite the study's reliance on self-reported data.

These insights guide equitable policy, sustained industry action, and culturally adapted programs, though causal inferences require further research.

Source:

https://www.news-medical.net/news/20250818/Mediterrane-diet-success-looks-different-for-women-and-men-study-of-4000-adults-reveals.aspx