



MEDITERRANEAN DIET ADHERENCE AMONG MEDICAL STUDENTS IN SOUTHERN ITALY



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INTRODUCTION & AIM

The Mediterranean Diet is defined by a dietary pattern rich in plant-derived foods, featuring extra virgin olive oil as the principal lipid source, regular consumption of fish, limited intake of red meat, and moderate consumption of wine during meals. Although globally renowned for its health benefits and deeply rooted in Italian culture, recent lifestyle shifts have driven a move toward more Westernized dietary patterns.

This study aimed to evaluate MD adherence among medical students, a population expected to be particularly health-conscious due to their academic training.

Questions	Criteria for 1 point
1. Do you use olive oil as main culinary fat?	Yes
2. How much olive oil do you consume in a given day (including oil used for frying, salads, out-of-house meals, etc.)?	≥4 tbsp
3. How many vegetable servings do you consume per day? (1 serving : 200 g [consider side dishes as half a serving])	≥2 (≥1 portion raw or as a salad)
4. How many fruit units (including natural fruit juices) do you consume per day?	≥3
5. How many servings of red meat, hamburger, or meat products (ham, sausage, etc.) do you consume per day? (1 serving: 100–150 g)	<1
6. How many servings of butter, margarine, or cream do you consume per day? (1 serving: 12 g)	<1
7. How many sweet or carbonated beverages do you drink per day?	<1
8. How much wine do you drink per week?	≥7 glasses
9. How many servings of legumes do you consume per week? (1 serving : 150 g)	≥3
10. How many servings of fish or shellfish do you consume per week? (1 serving 100–150 g of fish or 4–5 units or 200 g of shellfish)	≥3
11. How many times per week do you consume commercial sweets or pastries (not homemade), such as cakes, cookies, biscuits, or custard?	<3
12. How many servings of nuts (including peanuts) do you consume per week? (1 serving 30 g)	≥3
13. Do you preferentially consume chicken, turkey, or rabbit meat instead of veal, pork, hamburger, or sausage?	Yes
14. How many times per week do you consume vegetables, pasta, rice, or other dishes seasoned with soffritto (sauce made with tomato and onion, leek, or garlic and simmered with olive oil)?	≥2

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Table 1. PREDIMED Questionnaire.

METHODS

We assessed adherence to the Mediterranean Diet in 300 medical students from the University of Bari "Aldo Moro," evenly distributed across six academic years, using the 14-item PREDIMED questionnaire [table 1]. Anthropometric measurements included BMI for all participants and waist circumference for a subset. Lifestyle data were also collected, focusing on the weekly frequency of meals consumed outside the home or ordered as takeaway, as well as students' residential status.

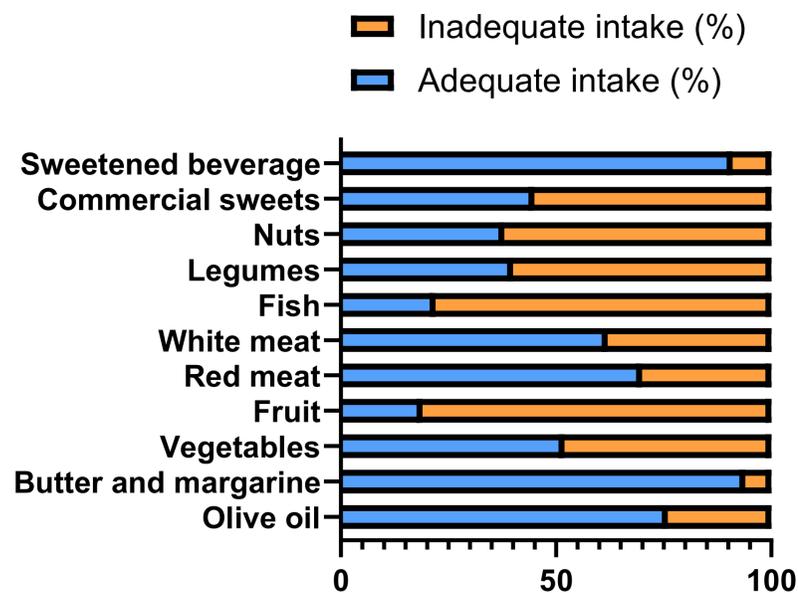


Figure 1. Percentage distribution of responses to the questionnaire's items.

RESULTS & DISCUSSION

Adherence to the Mediterranean Diet was moderate overall, consistent with national averages. Sixth-year students showed the highest adherence (14%), while first-years had the lowest (2%). Third-years also scored low (28%) [figure 2]. No significant link emerged between MD adherence and BMI or waist-to-height ratio, although no obese students were in the high adherence group, and only six were overweight. Students who frequently ate out or ordered takeaway had lower adherence. Local vs non-local status showed no difference [table 2]. Females demonstrated higher adherence and lower overweight prevalence (18% vs 34%) than males. Main weaknesses included low intake of fruit and vegetables and regular consumption of processed foods.

MEDICAL STUDENTS' MD ADHERENCE PER YEAR OF THE COURSE

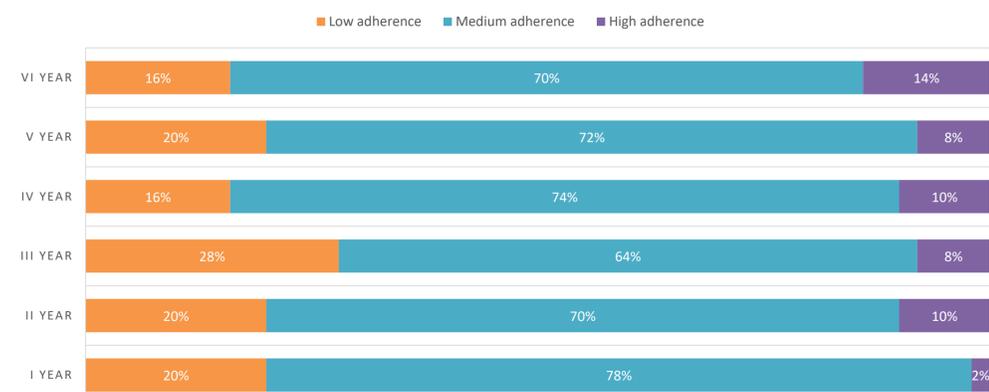


Figure 2. Adherence rates by Academic year. Low: 1-5 points; medium: 6-9 points; high: 10-14 points.

Parameter	MD adherence			p-value
	Low n=60 (20.0%)	Medium n=214 (71.3%)	High n=26 (8.7%)	
BMI score	22.5 [21.0-26.0]	22.0 [21.0-24.8]	23.0 [22.0-24.6]	0.39
BMI classification				
Underweight	4 (33.3%)	7 (58.3%)	1 (8.3%)	0.624
Healthy weight	37 (17.2%)	159 (74.0%)	19 (8.8%)	
Overweight	18 (25.7%)	46 (65.7%)	6 (8.6%)	
Obesity	1 (33.3%)	2 (66.7%)	0 (0.0%)	
Meals outside the home or takeaway food	2.0 [1.5-3.0]	1.5 [1.0-2.0]	1.0 [1.0-2.0]	<0.001
Non-resident student				
no	36 (21.8%)	117 (70.9%)	12 (7.3%)	0.487
yes	24 (17.8%)	97 (71.9%)	14 (10.4%)	0.487

Table 2. Sample Characteristics. Data are presented as number (percentage). Statistical comparisons were performed using one-way ANOVA. A p-value < 0.05 was considered statistically significant.

CONCLUSION

Adherence to the Mediterranean Diet varied by sex and academic year, with final-year students showing higher adherence—possibly reflecting cumulative nutritional knowledge. Introducing nutrition education earlier in the curriculum may help cultivate healthier habits.

Enhancing campus access to fruits and vegetables while limiting processed food options could further encourage adherence. As future physicians, medical students should both model and advocate for healthy lifestyles, underscoring the importance of robust nutritional training and supportive food environments.

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