

# **EVALUATION OF KNOWLEDGE ABOUT MEDITERRANEAN DIET AMONG PHARMACY STUDENTS IN KOSOVO**

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## Introduction

The Mediterranean Diet (MD) is considered nowadays as an example of sustainable diets. The MD has been linked to a number of health benefits, including reduced mortality risk and lower incidence of cardiovascular, metabolic diseases, and others, and in the last years entered the medical literature rapidly. Higher adherence to the Mediterranean diet is linked to a lower risk of obesity, as well as mental problems, according to the published academic researches.



**Definitions** and potential health benefits of the Mediterranean Diet: views from experts around the Fundacion Dieta Mediterranea

# Aim

The aim of this study was to evaluate knowledge about Mediterranean diet among Pharmacy students in Kosovo, and as a goal, inform the students about its importance, health benefits of using Mediterranean diet, lifestyle etc.

The Mediterranean diet may reduce the risk of cardiovascular disease.

Mediterranean diet may reduce stroke risk in women.

The Mediterranean diet can prevent cognitive decline, Alzheimer's disease and promote healthy aging.

The Mediterranean diet, if restricted in calorie intake, can help with weight loss and maintenance The Mediterranean diet can help reduce or reverse Type 2 diabetes.

Certain foods in the Mediterranean diet may ease depression.

This is a study based on data obtained from a questionnaire conducted among 23 Pharmacy students in Pristina, Kosovo during the May 2023. The questionnaire includes a combination of 12

questions containing qualitative and quantitative data. In this questionnaire we used two types of questions:

# Method

- 1) with multiple choices and
- 2) open questions.

### Use of MEDAS as a tool to determine adherence to the Mediterranean Diet

- Various models of food diaries, food frequency questionnaires and dietary assessment surveys have been developed, validated and tested in different populations and countries.
- Notably, the PREDIMED study, a primary prevention dietary intervention trial, led to the development of the Mediterranean Diet Adherence Screening (MEDAS) to assess dietary intake.
- This instrument consists of 14 questions about the main food groups consumed as part of MD and has been validated against a 136-item food frequency questionnaire (FFQ).
- The 14-item MEDAS questionnaire was shown to be a moderate and quite valid tool for the rapid assessment of MD adherence.
- Additionally, a higher MEDAS score was positively associated with (HDL) cholesterol and negatively associated with body mass index (BMI), waist circumference, triglycerides (TG), glucose, and total cholesterol/HDL ratio indicating potential applicability in clinical practice.

## Results

The obtained results show that 45% of participating students have knowledge about MD where 50% of the students learned about it at the faculty. 95% of the students think that Mediterranean diet is important for the resulting therapy effect. Preliminary data from our still ongoing study among the student population in Kosovo, indicates low to moderate Mediterranean diet adherence outcomes, and that more in-depth strategies are needed to make the MD approach more familiar to people while addressing multiple health outcomes.

Food	Cancer	Diabetes Type 2	Cardiovascular Diseases	Stroke
Whole grains	↓ 14	↓      2	↓ 12 13	
Vegetables	↓ 14		↓  2  3	↓  2  3
Fruits	↓ 14		↓  2  3	↓  2  3
(fermented milk products)	↓ 14	↓      2		↓ 12
Red meat	↑ I4	↑ II I2	↑ I3	↑  2  3
Processed meat	↑ <b>I 4</b>	↑ <b>    2</b>	↑  2  3	↑ I2 I3
Fish			↓ 12 13	↓  2  3
Olive Oil		↓ 15		↓ 16
Eggs		↑ I2		
Nuts		↓ 12	↓ 12 13	
Cocoa/chocolate			↓ 17	↓ 17
Coffee	↓  4  8	↓      2  8	↓ 12 18	↓  2  8
Tea		↓ 12	↓ 12	↓ 12
Sweet drinks with sugar		↑ II I2	↑  2  3	↑  3





Where did you first heat about MD

The use of MD to prevent several chronic diseases



Associations between dietary intake and chronic disease **REF:** Matthias B Schulze, Miguel A Martínez-González, Teresa T Fung, Alice H Lichtenstein, Nita G Forouhi

In this graph we show the percentage of the Pharmacy students have heard about MD

In this graph we show the percentage of the use of MD to prevent several chronic diseases

In conclusion, the results of studies confirm that higher adherence to the Mediterranean Diet is associated with a reduced risk of diseases such as metabolic syndrome, cardiovascular disease, gastroesophageal reflux, subclinical atherosclerosis, and rheumatoid arthritis. Overall, the analysis suggests that there is a need to adopt a serious approach in studies on the Mediterranean diet in order to emphasize its multiple and multifaceted benefits. The Mediterranean diet should be considered not only as a healthy diet, but also as a sustainable diet with environmental, economic and sociocultural benefits.

### **Recommendations – Tips**

- food-health issues.
- drinks.
- health outcomes.





### **Discussion and Conclusions**

• The observance of MD and its impact on lifestyle, physical activity and health outcomes not only among the students but also among all residents from Kosovo should be evaluated. We need to assess how sustainability of MD is linked in different circumstances to

environment, economy, socio-cultural and

Diet-based prevention of chronic disease risk should prioritize fruits, vegetables, whole grains and fish as well as lower consumption of red meat, processed meat and sugary

Higher consumption of nuts, legumes, vegetable oils, fermented milk products, and coffee may provide health benefits. Preliminary data from the ongoing study indicate low to moderate MD adherence outcomes, and that more in-depth strategies are needed to make the MD approach more familiar to people while addressing multiple