Applied nutritional investigation

Quarantine during COVID-19 outbreak: Adherence to the Mediterranean diet among the Cypriot population

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ABSTRACT

Objective: The aim of this study was to analyze adherence to the Mediterranean diet among the adult general population of Cyprus during the COVID-19 confinement.
Methods: This was an Internet-based, cross-sectional study that collected information about socioeconomic and demographic characteristics, adherence to the Mediterranean diet and other dietary details, physical activity levels, and smoking habits using a self-administered questionnaire. The survey was conducted between April 6 and June 20, 2020, 1 to 2.5 mo after the initiation of the social confinement measures.
Results: There were 1485 Cypriot adults who participated in the study. The median Mediterranean diet score was 21 (q1 = 19, q3 = 24) with men, married individuals, residents of rural regions, and physically active participants being more adherent to the Mediterranean diet compared with women; unmarried, divorced, or widowed; residents of urban regions; and physically inactive participants, respectively ($P < 0.05$). Multinomial logistic regression showed that being ≥ 45 y of age and physically active was positively associated with the Mediterranean diet score, whereas being unmarried, divorced, or widowed and a current smoker was negatively associated with the Mediterranean diet score ($P < 0.05$).
Conclusions: Adherence to the Mediterranean diet during the confinement imposed due to the COVID-19 pandemic among the Cypriot adult population was associated with male sex, age >45 y, being married, being physically active, and being resident of rural regions. The importance of better understanding of nutritional behavior during COVID-19 lockdowns is emphasized so public health authorities can plan future lockdown policies on nutritional recommendations, should a new pandemic occur.

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Introduction

The novel coronavirus disease, or COVID-19 as it is now called, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), presents a significant and critical threat of global health since its outbreak in China in early December 2019 [1,2]. COVID-19 quickly became a rapidly emerging situation, spreading from the Asian continent to the rest of the world. On January 30, 2020, the disease was declared a pandemic by the World Health Organization (WHO) [3].

Due to the gravity of the situation, most regions and nations, in an effort to reduce and delay population transmission and ultimately lessen the burden on health care systems, enforced strict public health measures, including city and national lockdown measures. To contain the spread of COVID-19, on March 24, 2020, the government of the Republic of Cyprus implemented stringent containment measures and imposed a national lockdown. As a result, almost all avoidable outdoor activities (such as mass gatherings and events) were banned, and the Cypriot population was forced to quarantine themselves at home. Citizens could leave their home only for essentials, such as visiting food markets and pharmacies, and commuting to work when working in person was essential (e.g., health care, supermarkets, etc.) while maintaining physical distancing.

Physical distancing and self-isolation, however, have an effect on the general health of the population, affecting everyday behaviors, including dietary and eating habits as well as physical activity patterns [4]. Lockdown measures caused physical inactivity as gyms and sports centers remained closed and further restrictions

on movement affected the behavior and routines of individuals. Also, in most cases, the lack of space in homes for physical exercise, combined with the lack of knowledge on appropriate training routines, contributed to sedentary behavior [5]. As a result of people's confinement in their homes, physical activity and exercise levels usually decline while dietary habits remain unchanged or fail to offset this inactivity, producing a positive energy balance [5]. At the same time, a nationwide lockdown may potentially alter dietary habits and eating behavior, as it forces most individuals to stay and eat at home. Prolonged staying at home, which includes virtual education, working from home, and lack of outdoors and in-gym physical activity, may potentially alter dietary habits, by increasing consumption of processed foods due to their longer shelf life, snacking, and alcohol consumption [6–8]. A lockdown may further affect individual choices to cook or buy prepared food more often. Likewise, psychological parameters, such as anxiety and stress due to lockdown, as well as additional available time for watching television, home entertainment, and even boredom, could lead to a greater energy intake from foods such as energy-dense snacks, fast foods, or sweetened beverages [7,9–12]. Moreover, due to the anxiety of a potential food shortage, it is plausible that individuals will purchase more packaged and food with a long shelf-life rather than fresh food, leading to a reduced intake of antioxidants [13]. Diets rich in antioxidants, such as the Mediterranean diet, are vascular protective and to date, several studies have shown that the Mediterranean diet is associated with a reduction in chronic diseases, central obesity, and all-cause mortality [14–19]. In fact, the Mediterranean diet has been recommended as a healthy dietary pattern to be followed during quarantine [20].

In view of the current COVID-19 pandemic, as the daily routine and behavior of the population are usually altered, it is important to study these behaviors and assess their possible effect on health. The effects of quarantine and restrictions linked to COVID-19 on adherence to the Mediterranean diet in adult individuals are not yet very well understood. Therefore, the aim of this study was to evaluate adherence to the traditional Mediterranean diet during the first nationwide COVID-19−related quarantine among the Cypriot adult population. This could help public health authorities shape their recommendations in terms of nutrition and physical activity, for future epidemic-related quarantine policies.

Methods

Study design, participants, and procedure

This was a cross-sectional study. The eligible population included Cypriot Greek-speaking men and women aged ≥18 y and living in the five government-controlled districts of the Republic of Cyprus (i.e., Nicosia, Limassol, Larnaca, Paphos, and Ammochostos) during the first wave of the COVID-19 pandemic. The data were collected between April 6 and June 20, 2020 (1 to 2.5 mo after the initiation of the social confinement measures) using a standardized questionnaire. In an effort to collect a representative sample from all areas of Cyprus (Nicosia, 54% of the total Cypriot population, Limassol 23%, Larnaca 14%, Paphos 6%, and Ammochostos 3%) and to reach a large number of individuals through mobile phones, tablets, and computers, the questionnaire was created using the Google Forms tool and distributed using instant messaging apps (e.g., WhatsApp, social media like Facebook and Instagram, social networking sites such as LinkedIn) and emails through snowball sampling. Data collection was initiated after approval of the study by the Cyprus National Bioethics Committee (CNBC) and participation in the survey was entirely voluntary and anonymous.

Instruments and variables

A self-administered questionnaire that assessed demographic characteristics (i.e., age in years, sex, marital and educational status, and annual income), anthropometric characteristics (such as height and weight), consumption of selected foods and general food habits, physical activity, and smoking habits was used.

Marital status was recorded as never married, married/engaged, or separated/divorced/widowed. Education level was classified into three categories commonly used in Cyprus as:

- Primary education: participants who completed only primary school (<7 y of schooling);
- Secondary education: participants who completed middle or high school (7−12 y of schooling);
- Higher education: Participants with a university degree (>12 y of schooling).

Income was assessed using the personal monthly salary and was classified as:

- Low: ≤$608;
- Moderate: $609 to $1825; and
- High: >$1825.

Smoking status was recorded as current, past, or never smoker. For the evaluation of physical activity, participants were asked to provide the sport/physical activity in which they mainly participated (i.e., walking, jogging, home gym, yoga, swimming) and the duration of the activity on a weekly basis, such as ≥1, 1 to 3, 3 to 6, 6 to 9, or >9 h.

Dietary assessment was based on a questionnaire developed by Panagiotakos et al. [21]. The questionnaire includes the consumption of 11 food groups that follow the rationale of the Mediterranean dietary pattern: non-refined cereals, fruits, vegetables, legumes, potatoes, fish, meat and meat products, poultry, full fat dairy products, as well as olive oil and alcohol intake. Adherence to the Mediterranean diet was evaluated based on the MedDietScore, which ranges from 0 to 55, with higher values indicating greater adherence to the Mediterranean diet. For the consumption of items presumed to be close to this pattern, scores were assigned as 0 through 5 [21]; whereas for the consumption of foods presumed to be away from this pattern scores were assigned in the reverse order. The tertiles of adherence to a Mediterranean diet were defined as follows:

- Low: MedDietScore <19;
- Moderate: MedDietScore 19 to 21; and
- High: MedDietScore >21.

Moreover, there were questions about coffee consumption and specifically about the number of cups of coffee consumed daily, and whether they add milk (full fat, semi-fat, low fat, lactose free, soy, almond, or coconut) or sugar (white, black, stevia), or both. Also, there was a question about the consumption of food supplements (i.e., vitamins C and D, multivitamins, calcium, magnesium, protein, and creatine). Body mass index (BMI) was calculated as weight (in kilograms) divided by height (in meters) squared. Obesity was then defined as BMI >29.9 kg/m², overweight as BMI 25 to 29.9 kg/m², normal as BMI 18.5 to 24.9 kg/m², and underweight as BMI <18.5 kg/m², according to the WHO classification.

Ethical approval

The study was approved by the Cyprus National Bioethics Committee (CNBB). The application, along with the relevant questionnaire, submitted to the CNBC outlined the study objectives and outcomes, the data collection process and data management, the use of the data, and the expected benefits. All the participants were informed about the aim and objectives of the study before participating.

Statistical Analysis

Anthropometric and lifestyle characteristics are presented as mean ± SD for continuous variables with normal distributions (i.e., age, BMI) and as median (q_1, q_3) for continuous measures with skewed distributions (i.e., MedDietScore) while for categorical variables (i.e., sex, marital status, education levels, income, physical activity, smoking) as absolute and relative (%) frequencies. Values were compared between the three MedDietScore tertiles using the analysis of variance test. Mixed-effects multinomial regression was performed to evaluate the association of demographic, socioeconomic, and lifestyle characteristics with the level of Mediterranean diet adherence (low, moderate, and high). The fit of the model was assessed using the Hosmer-Lemeshow goodness of fit test. Linear regression models were also used to assess the effects of different factors on the MedDietScore, as a continuous variable. All statistical tests performed were two-sided with the statistical significance level set at α = 0.05. Statistical analysis was conducted using STATA version 14 (Stata Corp, College Station, TX, USA).

Results

Participants' characteristics

The online questionnaire was completed by 1485 Cypriot adults co. The main sociodemographic characteristics of the respondents are described in Table 1. About 56% of the participants were

Table 1
Baseline characteristics and adherence to Mediterranean diet during COVID-19

| Characteristics | Overall (N = 1485) (%) | MedDietScore | | | P-value |
		Low (n = 479) (%)	Moderate (n = 295) (%)	High (n = 711) (%)	
MedDietScore*	21 (19, 24)	17 (15, 19)	20 (20, 21)	24 (23, 26)	**<0.01**
Age, mean ± SD	35.8 ± 12	34.6 ± 11.1	35.1 ± 11.8	36.9 ± 12.5	**<0.01**
Age group, y					**<0.01**
18−24	280 (18.9)	97 (20.3)	65 (22)	118 (16.6)	
25−44	862 (58.1)	297 (62)	164 (55.6)	401 (56.4)	
45+	343 (23.1)	85 (17.7)	66 (22.4)	192 (27)	
Sex					**0.02**
Women	833 (60)	302 (63.7)	183 (62.9)	398 (56.4)	
Men	588 (40)	172 (36.3)	108 (37.1)	308 (43.6)	
Geographical area					0.30
Nicosia	799 (54.1)	253 (53)	157 (53.6)	389 (55.1)	
Limassol	341 (23.1)	115 (24.1)	64 (21.8)	162 (23)	
Larnaca	202 (13.7)	75 (15.7)	35 (12)	92 (13)	
Paphos	89 (6)	23 (4.8)	23 (7.9)	43 (6.1)	
Ammochostos	45 (3.1)	11 (2.3)	14 (4.8)	20 (2.8)	
Residency					**0.03**
Urban	1232 (85.5)	413 (86.2)	251 (85.4)	568 (80.9)	
Rural	243 (16.5)	66 (13.8)	43 (14.6)	134 (19.1)	
Marital status					**<0.01**
Married	764 (51.9)	213 (44.9)	154 (52.5)	397 (56.4)	
Unmarried	623 (42.4)	223 (48.3)	120 (41)	274 (38.9)	
Divorced/Widowed	84 (5.7)	32 (6.8)	19 (6.5)	33 (4.7)	
Educational status					0.98
Primary education	4 (0.3)	1 (0.2)	1 (0.3)	2 (0.3)	
Secondary education	258 (17.4)	87 (18.2)	50 (17)	121 (17)	
Higher education	1221 (82.3)	391 (81.6)	243 (82.7)	587 (82.7)	
Salary (monthly average)					**<0.01**
Low	310 (20.9)	105 (22)	74 (25.1)	131 (18.5)	
Middle	509 (34.4)	185 (38.8)	97 (32.9)	227 (32)	
High	662 (44.7)	187 (39.2)	124 (42)	351 (49.5)	
Physically active					**<0.01**
Yes	975 (65.9)	264 (55.3)	194 (66.0)	517 (72.9)	
No	505 (34.1)	213 (44.7)	100 (34.0)	192 (27.1)	
Smoking					**<0.01**
Non-smoker	965 (65.1)	292 (61)	195 (66.3)	478 (67.4)	
Past smoker	191 (12.9)	45 (9.4)	37 (12.6)	109 (15.4)	
Current smoker	326 (22)	142 (29.7)	62 (21.1)	122 (17.2)	
BMI (kg/m^2), mean ± SD	25 ± 4.9	25 ± 5	25.1 ± 4.8	25.1 ± 4.8	0.99
BMI group					0.85
Underweight	72 (4.9)	28 (5.9)	14 (4.8)	30 (4.3)	
Normal	743 (50.5)	235 (49.6)	146 (50.2)	362 (51.3)	
Overweight	421 (28.6)	130 (27.4)	85 (29.2)	206 (29.2)	
Obese	235 (16)	81 (17.1)	46 (15.8)	108 (15.3)	

BMI, body mass index
Values in **bold** font indicates statistical significance ($p < 0.05$).
*Median (q$_1$, q$_3$).

women, 54% were from Nicosia, the capital of Cyprus, and the majority attained a higher education (82%). The mean age of the participants was 36 ± 12 y (34 ± 12 y among the 883 women and 38 ± 13 y among the 588 men; $P \leq 0.001$). Additionally, 52% of the participants were married and 45% were categorized as having a high monthly average salary. Most of the participants never smoked (65%) and were physically active (66%). The overall mean BMI was 25 ± 5 kg/m^2 (29.9 ± 4.8 kg/m^2 for women and 26.7 ± 4.4 kg/m^2 for men; $P \leq 0.001$).

Mediterranean diet adherence and dietary habits

The median MedDietScore of the participants was 21 (q$_1$ = 19, q$_3$ = 24) with the maximum score being 40. More women were in the low adherence tertile than the high adherence (34% versus 29%) compared with men (45% versus 52%; P = 0.02; Table 1). Similarly, a higher percentage of rural residents and physically active participants were in the high adherence tertile compared with urban residents and physically inactive participants, respectively. In particular, the median

MedDietScore of the respondents from rural regions compared with those from urban areas was 25.5 versus 21 (P = 0.03). Although the median MedDietScore of physically inactive individuals was higher than those who were physically active, the largest percentage among physically active individuals was reported in high adherence tertile (53%; P < 0.01). Other characteristics, such as geographic area, educational status, and BMI were similar among the three tertiles of adherence to the Mediterranean diet (Table 1).

Table 2 shows the multinomial logistic regression model that was used to model Mediterranean diet adherence as a linear combination of the characteristics of the study (i.e., age, sex, marital status, educational level, salary status, smoking and physical activity level, and BMI). Results indicated that the probability of being moderately adherent to the Mediterranean diet tertile versus being in the low adherence tertile was associated with being unmarried and physically active, whereas a reverse correlation was identified with middle annual income. Similarly, high adherence of Mediterranean diet was negatively associated with being unmarried or divorced or widowed and a current smoker, and positively associated with being physically active (Table 2).

Table 2
Multinomial logistic regression of Mediterranean diet adherence after accounting for all other variable effects during the COVID-19 Cypriot confinement

	Mediterranean diet adherence (base outcome = low adherence)	
	Moderate adherence [β-coefficient (95% CI)]	High adherence [β-coefficient (95% CI)]
Age (per 1 y)	−0.01 (−0.02, 0.01)	0.01 (−0.01, 0.02)
Men	0.01 (−0.33, 0.35)	0.22 (−0.05, 0.50)
Marital status		
Unmarried	−0.54 (−0.95, −0.13)*	−0.41 (−0.74, −0.09)*
Divorced/Widowed	−0.15 (−0.78, 0.48)	−0.58 (−1.13, −0.04)*
Educational status		
Secondary	−0.83 (−3.68, 2.02)	−0.34 (−2.86, 2.17)
Higher	−0.73 (−3.55, 2.09)	−0.47 (−2.97, 2.03)
Salary		
Middle	−0.47 (−0.92, −0.01)*	−0.05 (−0.43, 0.33)
High	−0.32 (v0.83, 0.20)	0.16 (−0.27, 0.60)
Smoking		
Current smoker	−0.32 (−0.69, 0.04)	−0.57 (−0.87, −0.27)*
Past smoker	0.16 (−0.34, 0.66)	−0.17 (−0.23, 0.57)
Physically active	0.53 (0.20, 0.85)*	0.77 (0.50, 1.03)*
BMI (per 1 kg/m²)	0.01 (−0.03, 0.04)	−0.00 (−0.03, 0.03)

BMI, body mass index
*Statistically significant (p<0.05).

When considering the MedDietScore as a continuous outcome, the results showed that being ≥45 y of age and physically active was positively associated with the score (P < 0.01; Table 3). Specifically, for every 1-y increase after the age of 45, the mean MedDiet-Score increases by 1.06 units given that all the other variables in the model are constant. On the other hand, being unmarried (P < 0.01) or divorced or widowed (P = 0.01) and a current smoker (P < 0.01) was negatively associated with the MedDietScore. Specifically, being a current smoker decreases the mean score by 1.11 units.

Table 3
Multivariate linear regression for the factors affecting level of the MedDietScore in Cypriot population during the COVID-19 Cypriot confinement

	β-coefficient (95% CI)	Standardized β-coefficient	P-value
Age group, y			
18−24	Ref	Ref	
25−44	0.36 (−0.54, 1.26)	0.04	0.44
45+	1.06 (0.02, 2.10)*	0.10*	**0.046**
Men vs women	0.44 (−0.07, 0.94)	0.05	0.09
Marital status			
Married	Ref	Ref	
Unmarried	−0.79 (−1.37, −0.20)*	-0.09*	**<0.001**
Divorced/Widowed	−1.26 (−2.27, −0.26)*	-0.07	**0.01**
Educational status			
Primary	Ref	Ref	
Secondary	0.46 (−3.86, 4.79)	0.04	0.83
Higher	−0.08 (−4.38, 4.21)	−0.01	0.97
Salary			
Low	Ref	Ref	
Middle	−0.42 (−1.23, 0.40)	−0.04	0.31
High	−0.01 (−0.88, 0.86)	−0.00	0.98
Smoking			
Non-smoker	Ref	Ref	
Current smoker	−1.11 (−−1.68, −0.54)*	−0.10*	**<0.001**
Past smoker	0.01 (−0.70, 0.71)	0.00	0.99
Physically active vs inactive	1.29 (0.79, 1.78)*	0.14*	**<0.001**
BMI group			
Normal	Ref	Ref	
Underweight	−0.50 (−1.57, 0.58)	−0.02	0.37
Overweight	−0.19 (−0.74, 0.36)	−0.02	0.50
Obese	0.10 (−0.57, 0.78)	0.01	0.76

BMI, body mass index
*Statistically significant (p<0.05).

The present study also found that 59.2% of participants were taking food supplements. Of these participants, most were taking vitamin C (32%), multivitamins (28.6%), and vitamin D (17.7%). We also observed that 4.8% and 4.3% of the respondents were taking magnesium and iron supplements, respectively. During that period, we identified that nearly 62% of the participants consumed more than two cups of coffee per day, with men consumed more coffee than women (P < 0.05).

Discussion

To the best of our knowledge, this was the first study to analyze adherence to the Mediterranean diet during the first confinement by COVID-19 in in the adult general population of Cyprus. Adherence to the Mediterranean diet as a reference of healthy eating during the confinement imposed due to COVID-19 pandemic was associated with male sex, age ≥45 y, being married, being physically activity, and residing in a rural region. Age, sex, residency, marital status, income, physical activity, and smoking status were significantly associated with tertiles of adherence to the Mediterranean diet.

To reduce and delay the diffusion of COVID-19 and to ultimately reduce the burden on health care systems, the government of the Republic of Cyprus implemented stringent containment measures and imposed a national lockdown for 8 wk. On one hand, it might be assumed that due to COVID-19 home confinement, individuals had an increased risk for sedentarism and exercise reduction. On the other hand, individuals could have had a greater chance to cook more, thus decreasing their intake of ready-made meals that are usually high in fats, sugar, and salt; improve their eating habits by increasing legumes, fruits, and vegetables; and consequently to adhere to Mediterranean diet. In fact, during the COVID-19 confinement in Cyprus, based on the MedDietScore calculation [21], people followed a high consumption of typical components of the Mediterranean diet, which is consistent with the WHO recommendations of legumes, fruits, and vegetables as the best food items to consume during self-quarantine or longer home stays [22].

The present findings concur with previous studies demonstrating that the COVID-19 home confinement could lead to the adoption of healthy diets and better adherence to the Mediterranean diet [4,23]. In particular, a recent previous study that assessed eating habits and lifestyle patterns during COVID-19 in Italy found that during the lockdown, the Italian population had high adherence to Mediterranean food, especially individuals the 18 to 30 y age group compared with younger and older population groups [4]. Similarity, a recent study that examined the dietary behaviors of the Spanish adult population during the COVID-19 outbreak confinement found that Spanish adults have adopted healthier dietary behaviors [23]. Although the study's findings demonstrated medium adherence to Mediterranean diet, the levels were significantly increased during the COVID-19 confinement [23].

Adherence to the Mediterranean diet during the COVID-19 confinement in Cyprus was statistically associated with age, sex, residency, marital status, income, physical activity, and smoking status. As expected, a higher adherence to the Mediterranean diet was found in married participants compared with unmarried or divorced or widowed at the time of being surveyed, respectively. Being married and therefore living in the family home has been associated with a higher quality diet, whereas home cooking could also influence following a healthy diet [24,25]. Previous studies have reported that single people were less likely to consume high levels of fruit and vegetables [26], whereas married individuals are more likely to comply with the Mediterranean diet [27−29]. We have also observed that individuals ages ≥45 y have a higher

MedDietScore compared with the younger population, which is different with a recent study in Italy that found that individuals 18 to 30 y of age had a higher MedDietScore than an older population [4]. Yet, in a recent study in Cyprus, it has been reported that none of the study groups followed the Mediterranean diet to a large extent [30], something that suggests that individuals, especially those ≥45 y of age, may follow a healthier dietary pattern, such as the Mediterranean diet, during an emergency situation. This phenomenon also could be explained by the fear among older people of the increased risk for mortality from COVID-19, which may result in longer periods of staying at home and hence possibly better diet (e.g., more home cooking, etc.). We also observed significant differences in the adherence to the Mediterranean diet between men and women with men's adherence higher than women's, which agrees with a recent study conducted in Cyprus [30] as well as other previous studies [31,32].

A positive association of having higher adherence to the Mediterranean diet was found among individuals with high levels of physical activity. Indeed, the closure of gyms and sport facilities could negatively affect physical activity levels, however, individuals could adequately maintain their normal physical activity patterns with home activities with the use of technologies available online and social media (e.g., videos and applications) as well as participating in outdoor activities (e.g., walking, jogging, running). Still, we do not know if the effects on physical activity habits would have been maintained if the national lockdown had gone on for a longer period. Additionally, as expected, no current smokers had a higher MedDietScore, a finding that agrees with a recent study conducted in Cyprus [30] as well as previous studies [27,33]. It is also possible that during the COVID-19 lockdown, a percentage of individuals quit smoking due to the fear induced in smokers of the increased risk for respiratory distress and mortality from COVID-19 [34]. Interestingly, we also observed that 43.3% of participants reported that they rarely or never opted for take-away food or delivery during the lockdown. That percentage is more than double the corresponding percentage of another study in Cyprus [30]. This may indicate either that individuals had more time to cook, or that they were afraid to get take-away food because of the risk for infection from COVID-19.

Some limitations should be acknowledged. First, due to the cross-sectional design of the study, causation could not be inferred, and therefore only associations between the groups of interest were examined. Second, the use of an online self-reported questionnaire limited the sample representativeness and might have led to a degree of misreporting of self-reported data. Yet, the use of an online survey represents the best solution for data collection during virus outbreaks [35] and is similar to many recent studies. Third, due to the inclusion of an adult population only, we could not generalize our findings to younger individuals. Fourth, although the geriatric population was eligible for participation, this population had additional difficulties because the study was conducted online. Finally, the participation of non-healthy individuals who need to follow a special diet cannot be discarded, yet this information was not collected. The study had several strengths as well. To the best of our knowledge, this was the first study to examine population lifestyle, eating habits, and adherence to the Mediterranean diet during the COVID-19 lockdown in Cyprus. The study had a relatively large number of participants, both men and women (>18 y of age) from different geographic areas of Cyprus.

Conclusions

The present study provided, to our knowledge, the first description the effects of the confinement imposed by COVID-19 on the adherence to the Mediterranean diet among the adult population in Cyprus. This study suggested that adherence to the traditional Mediterranean diet was associated with male sex; age >45 y; being married, physically active, and a resident of rural regions; whereas being unmarried or divorced or widowed and a current smoker was negatively associated with the MedDietScore. Understanding nutritional behavior during the COVID-19 lockdown will help public health authorities reshape future policies on nutritional recommendations, should new pandemics appear, and lockdown policies need to be implemented.

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