

Parental health status and children's eating behaviors: An epidemiological study in 1728 Greek 10-12 years old students

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ABSTRACT

Aim: Although the parental influence on children's dietary habits has been widely studied, little is known about the effect of parental health status on children's dietary behavior. Thus, the association between the parental burden of cardiometabolic disease and its impact on children's eating habits and behaviors was examined. **Material and Methods:** 1,728 children aged 10-12 years old along with one of their parents were enrolled in a cross-sectional study conducted during 2014-2016. Among others, children's dietary habits and parental medical history were recorded. Children's adherence to the Mediterranean diet (MD) was evaluated through the KIDMED score while the parental health status was assessed through a cardiometabolic risk score calculated for this study. The working sample was 1,133 children with a recorded parental health status.

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Results: Most parents (92.1%) reported at most 2 cardiometabolic risk factors including overweight/obesity, diabetes mellitus, hypertension, and dyslipidemia. Ordinal logistic regression analyses showed a significant association between children's eating habits and adherence to the MD with the parental burden of cardiovascular disease. Children showed 6% higher odds of higher adherence to the MD (OR: 1.06, 95% CI: 1.01-1.12) and 54% lower odds of not having breakfast at all (OR: 0.46, 95% CI: 0.27-0.80) for a one-unit increase in the cardiometabolic risk score. The stratified analysis revealed a significant association between KIDMED score and CVD risk score only among boys (OR: 1.09, 95% CI: 1.01-1.18). **Conclusions:** Parental health status is positively associated with children's dietary behavior and adherence to the MD indicating an additional source of influence.

KEY WORDS: *Childhood obesity, dietary habits, parental health, cardiovascular disease, medical history*

INTRODUCTION

Cardiovascular diseases (CVDs) remain the predominant cause of death globally and a healthy dietary pattern is considered the cornerstone of cardiovascular disease prevention and treatment.^{1,2} The adoption of healthy dietary patterns such as the Mediterranean diet in childhood has been associated with lower adulthood cardiovascular disease risk.^{3,4} Moreover, taking into consideration that dietary health behaviors and food preferences are established in early childhood and follow into adulthood⁽⁵⁾ and that childhood obesity has reaching alarming levels worldwide⁶ the parental role in shaping the children's dietary habits is of enormous importance.

Indeed, family-based interventions have been recognized as an important approach to tackle childhood obesity and to stop obesity tracking into adulthood, provided that interventions should be implemented address to children younger than 12 years, before behavioral patterns are resistant to change.^{7,8} Parental influences on children's dietary behavior decline due to the greater effect of genetic background as children grow older.⁹ Therefore, parents consist a key influence on shaping children's eating behavior either by their own dietary intake or by the food parenting practices that they follow intentionally.⁹ Modeling is considered a passive process of influence when occurs from the psychological affiliation and the behavioral mimicry which happens unconsciously whereas food parenting practices are regarded as more active processes.^{9,10} Children perceive parental dietary patterns and especially maternal food choices as reference for the shaping of their own dietary habits.¹¹ Experimental studies have shown that children are more likely to consume an unfamiliar food if they see another person eating it.¹² Food parenting practices are an additional source of parental influence on children's eating habits in an active way, classified into three main categories including coercive control, structure and autonomy support.¹³ Evidence suggests that food parenting practices that directly influence home food environment like, food availability and accessibility

are more important and effective in stimulating healthy children's intake in contrast to those affecting children's appetite (restriction, pressure, rewarding).⁹

Despite the fact that the parental role has been broadly studied¹⁴⁻¹⁶ and is highly associated with children's dietary behavior, parental health status and its effect on children's dietary habits, has been scarcely examined. To the best of our knowledge only one cross sectional study has been found to investigate the influence of increased parental burden of disease on children's dietary intake, although without significant associations.¹⁷ Thus, the aim of the present study was to investigate the association between the parental burden of cardiometabolic risk factors and their impact on children's eating habits and behaviors among 10-12 years old children.

METHODS

Design

This was a cross-sectional, observational epidemiological study.

Setting

In the school years 2014-2015 and 2015-2016, data were collected from 47 primary schools from 5 different Greek towns. The towns that took part in the study included Athens the metropolis of Greece, Heraklion the capital city of Crete (the largest Greek island), and three counties of the Peloponnese peninsula (Sparta, Kalamata, and Pyrgos). The selected regions represent large urban and rural municipalities and therefore a more representative sample was obtained. The specific schools were randomly selected from the Greek Ministry of Education list of schools. The schools were located as follows: 37 in Athens, 5 in Heraklion, 3 in Pyrgos, 2 in Kalamata, and 5 in Sparta.

Study sample

In total 1728 students (795 boys) aged 10-12 years old were enrolled in the study. All children's parents were also

invited to participate, with a 68.9% response rate being achieved ($n=1190$). The participation rate for students ranged from 95% to 100% between schools, without any significant differences between the studied areas. However, for the purposes of the present analysis, the examined sample was limited to 1133 students (488 boys), whose parents had reported their health status.

Power analysis

The working sample was adequate to evaluate effect size measures' differences of 20% at <5% level of significance, achieving 85% statistical power.

Measurements

Specific questionnaires, designed for this study, were completed anonymously by each child after the researcher's or school teacher's request. For higher rates of accuracy in the responses, the study's investigators, in collaboration with children's teachers, assisted the process by using practical examples. The questionnaires included a variety of questions concerning socio-demographic characteristics (age, gender, place of residence, nationality), daily activities and habits (i.e., physical and sedentary activities, outdoor activities, dietary habits, and smoking), knowledge and perceptions on risk factors for chronic diseases. Anthropometric measurements (height, weight for BMI calculation) using scale and tape over skin-tight clothes with no shoes were also recorded. Children's dietary habits evaluation was conducted through a validated semi-quantitative Food Frequency Questionnaire (FFQ) designed for 10-12 years old children living in Greece.¹⁸ The FFQ provided information for dietary habits as well as habits pertaining to mealtime behaviors. All meals consumed in a day, as well as the type and size of snacks, were recorded. Specifically, the frequency of consumption of foods outside home (including school canteens and non-home-made meals), the cooking method usually employed by the family, the type of oils/fat consumed, the frequency of snacks consumed and the frequency of consumption of various foods such as fish, poultry, red meat, eggs, white bread, whole grain bread, potatoes, rice, fruits, vegetables, fruit juices, soda drinks, low-calorie soft drinks, beverages, and of traditionally cooked meals, were also recorded by children and their parents or guardians. For the purposes of the present analysis the behaviors examined were: the frequency of breakfast consumption consisting of 5 categories (never/almost never, 1-2 times/week, 3-4 times/week, 5-6 times/week, everyday), the frequency of soft drinks consumption consisting of 6 categories (never/<1/month, 1-3 times/month, once/week, 2-6 times/week, 1 time/day, >2 times/day) and the frequency of chocolates/croissants/biscuits consisting of 6 categories (never/<1/month, 1-3 times/

month, once/week, 2-6 times/week, 1 time/day, >2 times/day). In the last two variables, the categories once/day and >2 times/day were combined due to the small number of children consuming soft drinks or chocolates/croissants/biscuits more than 2 times a day.

Furthermore, parental questionnaires were completed by any of their parents at home and they were asked to return them back to the school setting. The majority of the questionnaires were completed by one parent and usually by the mother (75%). The parental questionnaires included questions about anthropometric self-reported characteristics (height, weight), parental and child medical history, family socioeconomic status (maternal and paternal education, profession and annual income status), lifestyle characteristics (physical activity, smoking, etc.), and dietary habits (frequency of several food groups consumption).

Children's adherence to Mediterranean diet

The adherence to the Mediterranean diet (MD) was evaluated with the aid of the KIDMED index (MD quality index for children and adolescents). The index ranged from 0 to 12 and was based on a 16-question test. Dietary habits that were negatively correlated with MD were assigned with -1, dietary habits that were positively correlated with MD were assigned with +1, while dietary habits with neutral correlation were assigned with 0. The sums of the values from the administered test were classified into three levels: 1) >8, i.e. optimal Mediterranean Diet; 2) 4-7, i.e. improvement needed to adjust intake to Mediterranean patterns; 3) ≤3, i.e. very low diet quality.¹⁹

Parental health status

Parental health status was evaluated with the use of a cumulative risk score of established cardiometabolic risk factors, which was developed for the purposes of this study.²⁰ Specifically, the score included four variables concerning the presence of cardiometabolic risk factors, i.e: a) overweight/obesity (Body Mass Index (BMI) $\geq 25\text{kg/m}^2$, according to the World Health Organization categorization BMI was calculated as weight in Kg divided by height in m squared), b) diabetes mellitus (fasting glucose $\geq 126\text{mg/dl}$ or use of anti-diabetic medication), c) hypertension (systolic/diastolic blood pressure $\geq 140/90\text{mmHg}$ or use of anti-hypertensive medication), d) dyslipidaemia (LDL-cholesterol $>100\text{mg/dL}$ or total cholesterol $>200\text{mg/dl}$ or special medication). For the presence of each of the aforementioned conditions a score +1 was assigned to the individual. Thus, the total score (CVD risk score) ranged from 0 to 4. A score equal to 4 indicated the highest cardiometabolic risk profile and referred to an obese adult

with all the aforementioned comorbidities, whereas score equal to 0 indicated the absence of the aforementioned health conditions. The CVD risk score was implemented as ordinal rather than continuous scale, under the assumption that each added CVD risk factor has the same and additive effect in the overall parental CVD risk.

Bioethics

The study was approved by the Institute of Educational Policy of the Ministry of Education and Religious Affairs (code of approval F15/396/72005/C1) and was carried out in accordance with the Declaration of Helsinki (1989). Prior to their acceptance, the school principals, teachers, parents, and students were fully informed about the aims and procedures of the study. A signed parental consent was obtained before the completion of the questionnaires.

Statistical analysis

Continuous variables are presented as mean \pm standard deviation, while categorical variables are presented as absolute and relative (%) frequencies. Association between normally distributed continuous variables and categorical with more than 3 categories was evaluated through the one-way ANOVA test. The Chi-squared test was used to evaluate the association between categorical variables. Additionally, ordinal logistic regression was used to assess the likelihood of affecting children's dietary behavior according to the parental burden of cardiovascular disease (measured by the CVD risk score). The proportionality of odds assumption was tested using the likelihood ratio test and it was met for all the analyses (p -values >0.05). All models were adjusted for age and interactions terms were implemented, in order to investigate for the possible interaction effect of sex in the aforementioned associations. The results are presented as odds ratios (OR) along with their corresponding 95% confidence interval (95%CI). Collinearity among the variables was tested through the variance inflation factor (VIF). Two-sided hypothesis tests were considered setting the level of statistical significance at 5%. All analyses were conducted using STATA 15.0 (M. Psarros & Assoc., Sparta, Greece).

RESULTS

In total, 1133 parents (816 females), of the 1190 parents participated in the study, reported their health status. The majority of them (92.1%) reported at most 2 cardiometabolic risk factors including overweight/obesity, diabetes mellitus, hypertension and dyslipidemia; 59.1% reported no cardiometabolic risk factors. In Table 1 parental characteristics, their health status and children's eating habits and adherence to the Mediterranean diet are presented. In

regards to children's eating habits, the average of KIDMED score was 4.66 ± 2.29 units. Specifically, 57.5% of children, needed improvement to adjust intake to Mediterranean diet patterns, 31.1% of children had very low-quality diet, while 11.5% of children had the optimal Mediterranean diet. In total, daily breakfast consumption was a common dietary behavior followed by the majority of children (62.7%), while 56.4% of children reported that they drunk soft drinks at most 3 times/week. Regarding the consumption of chocolates/croissants/biscuits, 71.2% of children reported that they consumed such products at most once/week. A significant positive correlation was reported between breakfast consumption and parental CVD risk score ($p < 0.001$); the more the CVD risk factors parents reported the more frequently children used to consume breakfast. A similar association between soft drinks consumption and CVD risk score of parents ($p = 0.014$) was also observed; the more the CVD risk factors parents reported the more frequently children used to consume soft drinks. No association was observed between chocolates/croissants/biscuits consumption and parental burden of cardiovascular disease.

Table 2 presents the results of ordinal logistic regression models to assess the association between children's eating habits and adherence to the Mediterranean diet and parental burden of cardiovascular disease. According to the analysis, for one more CVD risk factor, children had 6% higher odds to have higher adherence to the Mediterranean diet (OR: 1.06, 95% CI: 1.01-1.12) (*Model 1*). Additionally, for one more CVD risk factor, children had 54% lower odds of not having breakfast at all (OR: 0.46, 95% CI: 0.27-0.80) and 34% lower odds of having breakfast 1-2 times per week (OR: 0.66, 95% CI: 0.47-0.94) in relation to children having breakfast every day (*Model 2*). No association between soft drinks consumption and parental burden of disease was observed (*Model 3*) and between chocolates/croissants/biscuits consumption and parental CVD risk score (*Model 4*). Furthermore, a possible effect modification of children's sex was hypothesized in the relation between CVD risk score and the various eating habits and assessed with the corresponding interaction term in each of the four models. All p -values were significant ($p < 0.005$), thus stratified analysis according to sex was performed. The results are presented in Figure 1. The association between KIDMED score and CVD risk score was significant only among boys (OR: 1.09, 95% CI: 1.01-1.18).

DISCUSSION

The aim of this study was to investigate the association between the parental burden of cardiometabolic risk factors and the dietary behaviors and eating habits of their children. The results of our study revealed that almost six out of ten children required improvement to adjust dietary intakes to Mediterranean dietary patterns and children

TABLE 1. Children eating characteristics, as well as level of adherence to the Mediterranean diet, overall, and by burden of cardiometabolic risk factors among the parents.

	Overall	Cardiometabolic Risk Score of parents					P
		0	1	2	3	4	
Parental characteristics							
Age (years), father, mean (sd)	45.83 (5.24)	46.50 (5.11)	44.91 (5.45)	46.75 (5.25)	47.39 (4.40)	47.34 (6.37)	<0.001
Age (years), mother, mean (sd)	41.51 (4.42)	41.39 (4.51)	41.03 (4.58)	41.91 (3.99)	42.80 (3.46)	42.48 (5.05)	0.049
Sex, female, n (%)	816 (74.7)	434 (53.2)	181 (22.2)	135 (16.5)	41 (5.0)	25 (3.1)	<0.001
Children Characteristics							
KIDMED Score (-4 to 12), mean (sd)	4,66 (2.29)	4.51 (2.28)	4.90 (2.27)	4.78 (2.26)	5.09 (2.41)	4.94 (2.20)	0.104
Frequency of breakfast consumption, n (%)							<0.001
Never or almost never	71 (6.3)	52 (73.2)	10 (14.1)	9 (12.7)	0 (0.0)	0 (0.0)	
1-2 times/week	166 (14.8)	112 (67.5)	20 (12.0)	26 (15.7)	4 (2.4)	4 (2.4)	
3-4 times/week	109 (9.7)	60 (55.0)	23 (21.1)	20 (18.3)	6 (5.5)	0 (0.0)	
5-6 times/week	74 (6.6)	36 (48.6)	12 (16.2)	18 (24.3)	4 (5.4)	4 (5.4)	
Everyday	705 (62.7)	403 (57.2)	116 (16.5)	119 (16.9)	40 (5.7)	27 (3.8)	
Frequency of soft drinks consumption, n (%)							0.014
Never or less than 1/month	445 (39.3)	258 (58.0)	88 (19.8)	72 (16.2)	21 (4.7%)	6 (1.3)	
1-3 times/month	302 (27.1)	178 (58.9)	44 (14.6)	58 (19.2)	16 (5.3)	6 (2.0)	
once/week	223 (20.0)	137 (61.4)	32 (14.3)	34 (15.2)	8 (3.6)	12 (5.4)	
2-6 times/week	72 (6.5)	39 (54.2)	9 (12.5)	17 (23.6)	3 (4.2)	4 (5.6)	
1 time/day	55 (4.9)	31 (56.4)	6 (10.9)	8 (14.5)	4 (7.3)	6 (10.9)	
>2 times/day	18 (1.6)	10 (55.6)	2 (11.1)	3 (16.7)	2 (11.1)	1 (5.6)	
Frequency of chocolates/croissant/biscuits consumption, n (%)							0.190
Never/<1/month	241 (21.9)	148 (61.4)	45 (18.7)	34 (14.1)	11 (4.6)	3 (1.2)	
1-3 times/month	298 (27.1)	175 (58.7)	47 (15.8)	51 (17.1)	17 (5.7)	8 (2.7)	
once/week	252 (22.2)	146 (57.9)	41 (16.3)	46 (18.3)	7 (2.8)	12 (4.8)	
2-6 times/week	174 (15.8)	100 (57.5)	26 (14.9)	34 (19.5)	8 (4.6)	6 (3.4)	
1 time/day	106 (9.4)	60 (56.6)	15 (14.2)	17 (16.0)	9 (8.5)	5 (4.7)	
>2 times/day	30 (2.7)	21 (70.0)	3 (10.0)	6 (20.0)	0 (0.0)	0 (0.0)	

sd = standard deviation, KIDMED = Mediterranean Diet Quality Index for children and adolescents

with the parental burden of disease were more likely to adhere to the Mediterranean diet while the association remained statistically significant only for boys. Similar sex differences on adherence to the Mediterranean diet in children have also been reported in previous studies.^{21,22} Additionally, our findings showed that children with the parental burden of disease were more likely to consume breakfast daily while no significant association was observed for the rest eating behaviors.

It is worth mentioning, that in the present study the vast majority of parents reported at most two cardiometabolic

risk factors, a finding which is justified by the results of ATTICA study which revealed that the incidence of CVD and the related risk factors are at high levels among the Greek population despite the various recent strategies of public health that have been implemented.²³ The evaluation of children's eating characteristics in the present study showed that almost one out of ten children conformed to the Mediterranean diet pattern while more than half of them, required improvement to adjust their eating habits to the certain pattern. These findings are consistent with previous cross-sectional studies that examined children's

TABLE 2. Results from ordinal logistic regression analyses (odds ratio, OR, 95% confidence interval, CI) that evaluated the association between children's adherence to the Mediterranean diet and other selected eating behaviors, in relation to parental burden of cardiometabolic risk factors. All models were adjusted for age of children.

	Model 1	Model 2	Model 3	Model 3
Age (per 1 year)	0.88 (0.77, 1.01)	0.90 (0.73, 1.17)	0.86 (0.74, 0.99)*	0.86 (0.75, 0.99)*
Sex (boys vs. girls)	0.94 (0.74, 1.18)	0.58 (0.42, 0.78)*	0.92 (0.73, 1.17)	0.92 (0.73, 1.17)
KIDMED score	1.06 (1.01, 1.12)*			
Frequency of breakfast consumption				
Never or almost never		0.46 (0.27, 0.80)*		
1-2 times/week		0.66 (0.47, 0.94)*		
3-4 times/week		0.99 (0.67, 1.46)		
5-6 times/week		1.41 (0.90, 2.20)		
Everyday		Ref		
Frequency of soft drinks consumption				
Never or less than 1/month			0.65 (0.26, 1.58)	
1-3 times/month			0.69 (0.28, 1.69)	
once/week			0.65 (0.26, 1.62)	
2-6 times/week			0.93 (0.35, 2.45)	
1 time/day			0.95 (0.35, 2.60)	
>2 times/day			Ref	
Frequency of chocolates/croissant/biscuits consumption				
Never or less than 1/month				1.30 (0.58, 2.94)
1-3 times/month				1.58 (0.71, 3.53)
once/week				1.63 (0.73, 3.66)
2-6 times/week				1.69 (0.74, 3.85)
1 time/day				1.87 (0.80, 4.38)
>2 times/day				Ref

* p<0.05, OR = Odds Ratio, CI = Confidence Interval, KIDMED = Mediterranean Diet Quality Index for children and adolescents

and adolescents' adherence to the Mediterranean diet through KIDMED score, in Greek population and showed that the majority of children were in the intermediate level of adherence suggesting a need for improvement.^{24,25} On the other hand, in the present study it seems that breakfast consumption was a common dietary behavior among the children. Indeed, in many countries has been reported that a high percentage of children are regular breakfast consumers.²⁶ Literature suggests that breakfast consumption is associated with better educational and cognitive performance in children and adolescents while skipping breakfast in adulthood is associated with increased risk for cardiovascular and all-cause mortality.^{27,28}

Our study also showed that children with parents with an increased burden of cardiometabolic risk factors had a higher likelihood of adherence to the Mediterranean diet.

This finding is not consistent with that found in another cross-sectional study including more than 11,000 parents and children, suggested that the adult CVD risk does not influence the dietary intake of children residing in the same household given the limited compliance of the affected parents to the recommended dietary guidelines.¹⁷ However, in the present study the conformity of parents to the recommended dietary guidelines for the prevention of CVD, could not be assessed given the lack of data relevant to their previous habits. However, in our study, the potential improvement of parental dietary behavior does not seem to be a plausible explanation behind the observed association since literature shows that patients experience difficulties in following the recommended guidelines relevant to lifestyle changes for the management of chronic diseases. In particular, current evidence found that patients'

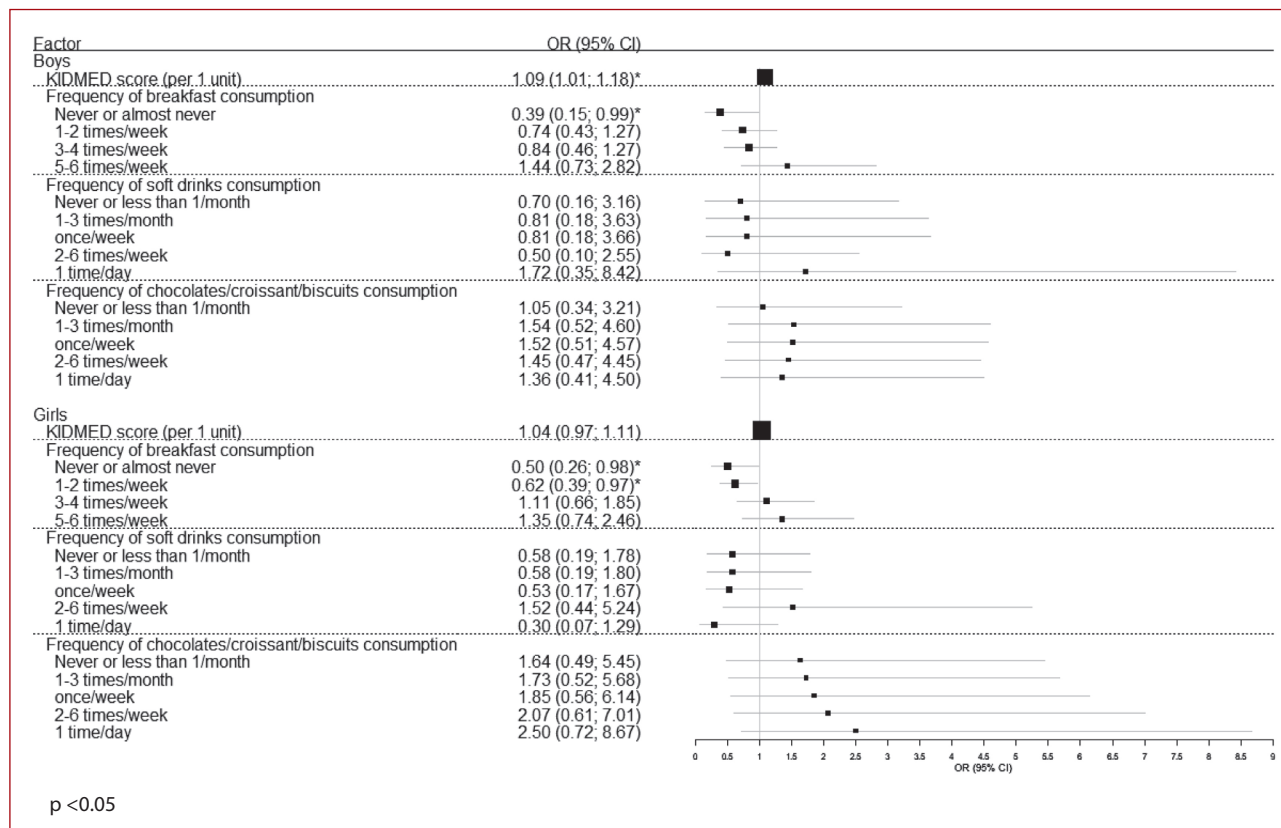


FIGURE 1. The ORs along with their 95% CIs for the association of adherence to the Mediterranean Diet, dietary habits and parental health status stratified by children's sex and adjusted for age.

adherence to guidelines for the management of cardiovascular disease, metabolic syndrome, hypertension, and diabetes was reported to be quite poor.^{17,29-31} Thus, taking into consideration that parental dietary habits are not the only source of influence on children's eating behavior⁹ it seems that the observed association between the parental cardiometabolic disease burden and the improved diet quality of their children could be attributed to the applied food parenting practices. Indeed, according to the results of a recent meta-analysis of 37 observational studies regarding the impact of parental behavior and practices on children's eating behavior, parental modeling effects and availability showed the strongest association with both healthy and unhealthy food consumption.³² Specifically, several studies support that children are more likely to consume food that is available and easily accessible at home.³³ In addition, another cross-sectional study including 386 parents of children aged 2 to 17 years old showed that food availability in the family environment can change regardless of parental dietary intake as long as parents understand the increased health risk of positive family history for their children.³⁴

Additionally, our findings showed that children with affected parents were more likely to adhere to healthy eating habits such as breakfast consumption. This may

be attributed to the fact that breakfast time is a sharing habit as the family's members eat together and hence family meals have a protective influence on children's dietary behavior.³⁵⁻³⁷ Thus, both parental modeling and food parenting practices could be considered as possible influencers. It is worth mentioning that in our study, no significant association was observed between children with affected parents and the rest eating behaviors as regards soft drinks and sweets which are easily accessible out of the home environment since these dietary behaviors can get away from parental control in contrast with breakfast consumption which takes place usually at home.³⁸

The Mediterranean diet is highly associated with favorable effects on cardiometabolic health and potential protective role against overweight and obesity while its beneficial contribution in human's health is highlighted by the decision of UNESCO to include this dietary pattern on the representative List of Intangible Cultural Heritage of Humanity.³⁹⁻⁴² In addition, adherence to the Mediterranean diet is suggested by international guidelines for the prevention and treatment of cardiovascular disease.^{43,44} Despite all the increasing data of the benefits of the Mediterranean diet a shift towards unhealthy eating habits and poor diet quality is documented, especially at young ages.⁴⁵

Therefore parents need to understand their crucial role in influencing children's dietary behavior and should be empowered to model healthy behaviors for their children.

This was a cross-sectional study and has, therefore, several limitations that should be considered. No temporal relationship and hence causal inferences can be made. Furthermore, despite the initial attempt to achieve generalizability, the sample was originated from specific regions of Greece, which limits the generalizability of the findings to the entire Greek children's population aged 10-12 years. However, due to the stratified random sampling scheme and the large sample size, its representativeness could be considered high for urban settings. Data related to diet were collected from FFQ (food frequency questionnaires) instead of food diaries or repeated 24-hour recalls. A potential limitation may also be reporting bias due to the self-reporting questionnaires. However, the presence of a trained investigator throughout the completion of the questionnaire for addressing any potential misconceptions about it increases the validity of the given responses. Parental weight and height were self-reported; thus, they may be subjected to bias due to overestimate height and underestimate weight.⁴⁶ In addition, the majority of parents who completed the questionnaires were mothers and this may result in bias to less burden of CVD risk factors since women become more susceptible to CVD risk factors in older age.⁴⁷ An interesting topic for further research would be to investigate whether the dietary habits of the parents

are reflected on the eating habits of their children.

CONCLUSIONS

The parental burden of cardiometabolic disease can be considered as an additional source of influence on children's eating habits and diet quality. Thus, future public health intervention strategies in the family environment should take into consideration, among other factors, the parental burden of disease in their attempt to improve children's eating habits/behavior. However, further investigation is needed to fully understand the exact mechanisms behind the parent-child correspondence recognizing all the potential determinants of children's eating behavior.

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Conflict of interest

None to declare.

ΠΕΡΙΛΗΨΗ

Η κατάσταση υγείας των γονέων, η συμμόρφωση των παιδιών στη μεσογειακή διατροφή και σε άλλες διατροφικές συμπεριφορές: Αποτελέσματα από μια επιδημιολογική μελέτη σε 1728 Έλληνες μαθητές ηλικίας 10-12 ετών

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Σκοπός: Μολονότι η επίδραση των γονέων στη διατροφική συμπεριφορά των παιδιών έχει μελετηθεί εκτενώς, η επίδραση της υγείας τους στη διατροφική συμπεριφορά των παιδιών έχει ελάχιστα διερευνηθεί. Για το

σκοπό αυτό εξετάζεται η σχέση του γονεϊκού φορτίου καρδιαγγειακών παραγόντων κινδύνου και της διατροφικής συμπεριφοράς των παιδιών. **Υλικό και Μέθοδοι:** 1.728 παιδιά ηλικίας 10-12 ετών με έναν από τους γονείς τους συμμετείχαν σε συγχρονική μελέτη που πραγματοποιήθηκε τη διετία 2014-2016. Μεταξύ άλλων, καταγράφηκαν οι διατροφικές συνήθειες των παιδιών και το ιατρικό ιστορικό των γονέων. Η συμμόρφωση των παιδιών στη μεσογειακή διατροφή αξιολογήθηκε μέσω του δείκτη KIDMED, ενώ η υγεία των γονέων αξιολογήθηκε μέσω ενός αθροιστικού σκορ καρδιαγγειακού κινδύνου ειδικά σχεδιασμένο για αυτήν τη μελέτη. Στην ανάλυση συμμετείχαν 1.133 παιδιά με καταγεγραμμένες πληροφορίες για το γονεϊκό ιατρικό ιστορικό. **Αποτελέσματα:** Οι περισσότεροι γονείς (92,1%) ανέφεραν μέχρι 2 καρδιομεταβολικούς παράγοντες κινδύνου, όπως υπερβάλλον βάρος/παχυσαρκία, σακχαρώδη διαβήτη, υπέρταση και δυσλιπιδαιμία. Τα αποτελέσματα της λογιστικής παλινδρόμησης έδειξαν σημαντική συσχέτιση μεταξύ των διατροφικών συνηθειών των παιδιών, της προσκόλλησης στη μεσογειακή διατροφή και του φορτίου καρδιαγγειακών παθήσεων των γονέων. Τα παιδιά εμφάνισαν 6% μεγαλύτερη πιθανότητα προσκόλλησης στην μεσογειακή διατροφή (OR: 1,06, 95% CI: 1,01-1,12) και 54% χαμηλότερη πιθανότητα αποφυγής κατανάλωσης πρωτεΐνης (OR: 0,46, 95% CI: 0,27-0,80) για κάθε μία μονάδα αύξησης στο σκορ καρδιαγγειακού κινδύνου. Η συσχέτιση του KIDMED και του σκορ καρδιαγγειακού κινδύνου παρέμεινε στατιστικά σημαντική μόνο για τα αγόρια μετά τη στρωματοποιημένη ανάλυση (OR: 1,09, 95% CI: 1,01-1,18). **Συμπεράσματα:** Η κατάσταση υγείας των γονέων σχετίζεται θετικά με τη διατροφική συμπεριφορά των παιδιών και την προσκόλληση τους στη μεσογειακή διατροφή.

ΛΕΞΕΙΣ ΚΛΕΙΔΙΑ: Παιδική παχυσαρκία, διατροφική συνήθεια, υγεία γονέων, καρδιαγγειακά νοσήματα, ιατρικό ιστορικό

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