

Eating habits and health status, in Aegean Islands: An adventure within the MEDIS study

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Abstract. There are places around the world that are characterized by high longevity rates; among these places are islands in Eastern Aegean Sea (Ikaria Island). Sparse data suggest that islanders' nutritional habits are based on both local products and the coastal transport development; however, the level of adherence to the traditional Mediterranean lifestyle is relatively unknown. This review explores eating habits and behaviors, as well as the health status of people living in Eastern Aegean Sea islands.

Keywords: Eastern Aegean islands, eating habits, nutrition, Mediterranean diet

1. Introduction

The nutritional conditions and the availability of food are not only influenced by economic or cultural factors, but also by the development of modern technology and the power of globalization, while nutritional issues still lie at the center of interest of the public opinion. Undoubtedly, the environment and the geographic parameters in particular, the ground and the quality of the exploitable fields and sources have played a vitally important role in the food procurement throughout the centuries. However, the “Green Revolution” has generated an increase in the cultivation output through the improvement of seed varieties, the systematic irrigation and the inflow of chemical substances [1]. Meanwhile, the fact that nutritional choices vary among people and countries is indisputable. Since ancient times many changes and influences on dietary habits have occurred in the countries around the Mediterranean Sea [2]. Their choices have been determined by food availability and according to the background of each consumer. The higher socioeconomic groups have the means to take very good care of their health and as a result, they make healthier food choices than the lower socioeconomic ones. Moreover, the taste,

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the price and the distance needed to cover in order to be supplied with food, influence the final choice of the inhabitants [3].

It is well documented that Mediterranean countries, mainly in the upper Mediterranean region, share similar dietary habits. They follow a model close to what Ancel Keys first described in the Seven Countries Study in the 1960s [4, 5]. Thus, these Mediterranean countries follow a diet with indistinguishable characteristics, such as higher intake of mono-unsaturated fatty acids in relation to the saturated ones, increased consumption of fruit, vegetables, whole grain cereals, legumes, moderate consumption of wine and low consumption of meat and its by-products together with milk and dairy products [6, 7]. As regards living conditions, the inhabitants live harmonically and share their cultural legacy. They are involved in a variety of social events, and they collaborate financially and commercially with neighbor-coasts, facts that place them between East and West and establish their function as “crossroads of civilizations” [8].

Nonetheless, as far as the islands of the Eastern Aegean Sea are concerned, there are very limited published data on the dietary habits and behaviors of the residents. The MEDIS study, which includes several islands from this area, should be an exception along with the Ikaria Study, where the connection between the islanders’ health and longevity has been investigated [9–11]. Thus, the aim of this review was to explore dietary habits and behavior in relation to the availability of food products, as well as the health status, among people inhabiting Eastern Aegean islands.

2. Studies’ selection; the MEDIS Study

Papers referring to the dietary habits and health status of Eastern Aegean islanders were retrieved. Searches were based on the databases: PubMed (<http://www.ncbi.nlm.nih.gov/pubmed>), SCOPUS (<http://www.scopus.com/>) and Google Scholar (google.com), using keywords, such as, “eating habits”, “dietary habits”, “Mediterranean diet”, “food availability”, “nutrition”, “diet”, “fish”, “health”, “chronic disease”, “hormone-dependent disease”, “diabetes mellitus”, “osteoporosis”, “thyroid dysfunction” in combination with the term “Mediterranean Islands”, “Aegean islands” and “Eastern Aegean”, published in Greek, English or French language, from 1974 until April, 2015. In total, 31 studies were used in this review. In addition, reference lists of retrieved papers were checked to identify additional papers of relevance. The following information was abstracted from each study according to a fixed protocol: design of study, sample size, mean age and sex of the participants, follow-up duration, assay methods and degree of adjustment for potential confounders.

Besides the retrieved studies, published results from the MEDIS (MEDiterranean ISlands) study were also exploited in this review [9, 11]. MEDIS is an ongoing, large-scale, multinational project in the Mediterranean region, supported by the Harokopio University and the Hellenic Heart Foundation, which aims at exploring the association of lifestyle habits, psycho-social characteristics and living environment, on cardiometabolic factors, among older people (>65 years), permanent residents of the Mediterranean area.

3. An adventure to foods, dietary habits and behaviors of Eastern Aegean islanders

The spread of Ottoman influence on the countries they had occupied, explains many of the similarities in Middle East cuisine. Regions of varying countries will always brag about their own recipes and ways of cooking. Nevertheless, the similarities of foods, spices and techniques between cultures, remain. Furthermore, Mediterranean and Middle Eastern culture is based on a strong patriarchal family. This does not occur in the same extent in recent years, but family ties are still strong. Customs and family traditions have a great influence on nutrition, since food is a fundamental part of family celebrations and festivals. (<http://www.diet.com/g/greek-and-middle-eastern-diet>) The common cultural characteristics of flavor, taste, foods and eating habits across the Mediterranean coastal lines are clear to someone who visits these areas. The most important characteristic of the

Aegean island's kitchen is the consumption of seasonal foods and the limited consumption of processed food. Especially during spring people usually consume chicory, nettles and blessed thistle, a habit that it seems to be shared by all civilizations resident in this area. Traditional dishes, such as *moussaka*, *imam baildi* and local sweets, such as *baklava* and *ekmek kadaifi* are common in the cuisine of the Eastern Aegean islands and the Near East coastal area. *Baklava* is made with butter and contains, along with other ingredients, mastic, orange, dried nuts and cinnamon. A quantity of 100 g of *baklava* includes 407 kcal, 6.1 g of proteins, 19 g of total lipids, 16 mg of cholesterol, 4.2 g of dietary fibers and 1.5 mg of Fe, while 100 g of *ekmek kadaifi* give 395 kcal, 4.7 g of proteins, 23.6 g of total lipids, 27 g of cholesterol, 1.8 g of dietary fibers and 1 mg of Fe. *Moussaka* contains vegetables similarly to *imam baildi*, which is made with eggplants stuffed with other vegetables and cooked with olive oil such as *moussaka*. Actually, 100 g of *moussaka* give 237 kcal, 7.8 g of proteins, 20.5 g of total lipids (11.6 g MUFA), 52 g of cholesterol, 1.5 g of dietary fibers, 6 mg of vitamin C and 1.1 mg of Fe. Also, interest for the dietary habits, the delivery and availability of food, seems to appear in the islands of Gökçeada and Bozcaada. Indeed, it is said that in the past, in Gökçeada island, there was sufficiency of goods and as a Mediterranean island, it was rich in olive trees and therefore in olive oil, enabling its residents to have good health conditions owing to this product, which is rich in antioxidants. Besides, Turkish coffee is the most well-known beverage of the region (https://en.wikipedia.org/wiki/Middle_Eastern_cuisine) [12, 13]. Eastern Aegean residents' nutritional habits seem to be based on domestic products as well as the tourist industry development, which has been apparent over the past 30–40 years. For example, nowadays, Gökçeada island does not depend on the local products only, but on various imports as well. The residents, who came from the Far East, were settled in and brought their own habits and traditions along with the dietary ones. The production and the consumption of legumes, vegetables, cereals, wine, fruit and spices together with the developed livestock, fishery, apiculture and hunting, refer to the Mediterranean diet, in combination with Turkish cuisine dishes, mainly due to the way of cooking. In Bozcaada Island, there is very low domestic food production and there is lack of data concerning dietary habits of its few residents (less than 3000 population). Furthermore, residents seem to hold an old Turkish tradition to regularly consume coffee and tea; drinks that are rich in various beneficial elements, such as Fe, Zn, Cu, Mn, Ni, Na and K [14].

According to previous reports in the 1980 s, it seems that there was adequacy in olive oil production, as well as flour, bread, pork and poultry, eggs, fish, dairy products, potatoes, certain legumes and vegetables (tomatoes, eggplants, cabbages and several greens), and almost in all kinds of fruits and sugar [15]. As for meat consumption in Bozcaada and Gökçeada islands, it is mainly lamb or goat, whereas pork and calf are consumed less. Thus, it could be speculated that residents could be dietary self-sufficient and fed according to the Mediterranean dietary model. Moreover, according to a relatively recent report, Eastern Aegean islanders showed high adherence to the Mediterranean diet, despite the high touristic development that occurred in these islands the past years, which led their cuisine to be influenced by western dietary habits and practices [16]. In particular, Romaquera et al., based on dietary habits of 2,648 Balearic and Greek islanders, reported that the main nutrition is characterized by fish consumption, olive consumption and olive oil use in daily cooking, as well as consumption of legumes, vegetables, cereals, fruit, wine, various spices and certain dairy products, coming from the domestic livestock [16] (Table 1).

4. Health status and food choices of Eastern Aegean islanders

In the 21st century the alimentation scenery throughout the world presents intensive complexity. The progress in food production together with that in the health sciences, result in the diminishing of mortality whereas good (healthy) nutrition proved to have played important role in prevention and treatment of various diseases. Moreover, food safety gains specific publicity since the epidemiology of the foodborne diseases has been altered lately, not only due to demographic evolutions but also because of a change in consumers' habits and in the food production process [1]. The adoption of dietary habits like the Mediterranean diet, contribute positively to

Table 1
Dietary habits of Eastern Aegean islanders

Reference / Study	Year	Material / Method	Type of study	Conclusion
Trichopoulou A. and Vassilakou T.	1995	Food availability in Greece per capita	Book	Eastern Aegean islanders had sufficiency in olive oil, flour, bread, pork, poultry, eggs, fish dairy products, potatoes, legumes, vegetables, fruit and sugar, in the 90's
Bozi S.	2005	Information about Gökçeada island and food availability	Book	In the past, in Gökçeada island, there was sufficiency in goods and as a Mediterranean island, it was rich in olive trees and therefore in olive oil
Romaquera et al.	2009	1,200 Balearic islanders (BI) and 1324 Greek islanders (GI) (western vs. eastern Mediterranean islanders). Calculation of Mediterranean Diet Score according to 9 components	Original research article	GI showed higher adherence to Mediterranean Diet patterns (5.12 ± 1.42) than BI (3.32 ± 1.23). GI diet was richer in fruit, vegetables, potatoes, olive oil, animal products and alcoholic beverages
Aksuner N.	2012	12 tea samples (10 black, 1 green and 1 white) and 5 herbal tea samples in order to analyse the elemental contents in tea leaves	Original research article	Elemental contents (Fe, Zn, Cu, Mn, Ni, Na, K) in tea leaves were found to be higher than those in tea infusions

human health. For that reason, UNESCO acclaimed the Mediterranean diet as an Intangible Cultural Heritage of Humanity and a health model as well [17].

Most of the traditional dishes contain vegetables, cereals and olive oil, that increase the antioxidant capacity of the body, reduce oxidative stress, and consequently cardiometabolic risk. Furthermore, most of foods – including butter- are organic/natural and, therefore, their effects on cardiometabolic risk factors differ than those caused by processed food. A particular mention should be made regarding the health benefits of a local sweet product (in Chios island), the mastic. Mastic has been used for a long time by the people of the Eastern Mediterranean area for medical reasons due to its high anti-inflammatory and antioxidant capacity [18, 19].

The Mediterranean diet, through its increased dietary fibers and the antioxidants it provides, favors the existence of saccharolytic kinds against the proteolytic ones, which are promoted by the Western-type diet and are responsible for a lot of chronic diseases. Thus, with the Mediterranean diet the intestinal microbiota could be restored, as it operates as an additional organ with beneficial ingredients aimed to amend the evolution of the chronic renal disease by decelerating it [20]. The type of dietary fat is one of the main factors that contribute to the oxidative stress. It is actually notable though, that food made with olive oil and more particularly with extra virgin olive oil, even if it is fried, has many phenolic components such as oleuropein, pinoresinol, hydroxytyrosol and tyrosol. Furthermore, whatever the cooking method is, the antioxidant capacity is the same or even better increased. Apart from that, the cooking technique and the vegetable or food itself gives them specific phenolic and antioxidant activity [21, 22].

It has been reported that the prevalence of diabetes is relatively low in some Greek Mediterranean islands (21% of older males and 23% of older females had diabetes in the MEDIS study) [23]. It is also known that the Mediterranean diet contributes to the better management of diabetes mellitus [24–26]. Apart from this, the main source of fatty acids in the Aegean Sea is mainly from olive oil, an excellent source of mono-unsaturated fatty acids. Moreover, the quality of carbohydrates and fatty acids is more vital when coping with diabetes rather than a dietary intake [27]. The advantages of the Mediterranean diet become more explicit as the antioxidants contained in it are beneficial for every organism, and especially the aged ones, as most of them contribute to the deceleration of possible mental dysfunction [28].

The good health condition and the successful aging of the Eastern Aegean islanders is evidenced by the apparently sufficient amount of vitamin D, due to the climate conditions especially the great number of annual sunny days [29], despite the fact that the definition of successful aging is still controversial. Successful ageing is not only associated with one component, but with a great number of them. These components could be the financial status, physical activity, body mass index, depression, participation in social activities, the number of cardiovascular disease risk factors and adherence to the Mediterranean diet [11]. However, it is known that facing the problem of osteoporosis, an especially hormone-dependent disease, which appears mostly in post-menopause women, depends on the human body intake of vitamin D, which interferes with the mechanism of the active transportation of calcium [30], either when it comes from nutrition or the extensive exposure to solar radiation. A recent study of 2014 reported that the olive oil phenols, a product of high consumption especially in the islands of the Eastern Aegean, due to the extensive olive tree cultivation, can be beneficial by preventing the loss of bone mass [31]. Another source of vitamin D intake in the area is the existence of fatty fish [32] such as sardines, which prevail in abundance. Generally, a type of nutrition close to the Mediterranean diet model, could diminish the incidents of osteoporosis, a disease which is gradually formed with ageing, because of the consumption of food which is good source of vitamin D, in the Aegean Sea [30]. Thus, although the islanders and the residents of the countries around the Mediterranean Sea, could potentially cover their necessary vitamin D levels, it seems that a percentage of people do not reach them either in Greece [33] or in the rest of Southern Europe. On the contrary non-European people cover their need for the respectful vitamin, due to the consumption of deliberately enriched in vitamin D products and food in general [34].

In the Eastern Aegean, the increased fish and fisheries consumption, leads people to have good iodine sources in their nutrition [35], a fact that could be associated with the lower hypothyroidism incidence. It has been reported that low vitamin D levels can contribute to the development of autoimmune diseases, such as autoimmune thyroid disease [36]. It is also known that either shortage or surplus of iodine are related to high risk of developing thyroid disorders, diseases mainly depended either on hypo-secretion or hyper-secretion of the hormones, which this gland produces [37]. The thyroid hormones are vital for the normal development and metabolism as the receptor's defective response to the thyroid hormone results in the intake of different signals by the gland [38].

It has also been reported that long term fish consumption is related to better lipid profile, better management of artery blood pressure levels and blood glucose among older adults living in this area [39]. However, there are some environmental risks that should be acknowledged [40]. According to a recent study from 17 European countries, it was reported that the greatest exposure to mercury was that of women from Mediterranean countries, who consumed fish and aquatic products, opposing to that of women coming from Northern Europe [41]. Similar to the aforementioned case, is the consumption of mushrooms by the residents in Lesbos Island, which contain metals Zn and Cr, but, fortunately they do not seem to pose a serious threat to health [42].

The regular coffee consumption of the residents of the particular Aegean area, apart from the beneficial effects on blood pressure levels, cardiovascular disease, chronic renal and non-alcoholic fatty liver disease incidence, can also contribute to the formation of the gut microbiota through special mechanisms. It has been recommended that consumption of 3 cups of coffee per day, for 3 weeks could increase the metabolism and possibly the number of *Bifidobacterium* spp., which have beneficial effects on the intestine, through the bioactive ingredients of this drink [43]. The various kinds of bacteria, which exist in the intestine, are responsible for its health

Table 2
Health status and Longevity of Eastern Aegean islanders

	Reference / Study	Year	Material / Methods	Type of study	Conclusion
Antioxidants	Mataix et al.	2008	Data on the role of dietary fat from the point of view of mitochondrial oxidative stress, aging and atherosclerosis prevention	Review	The type of dietary fat influences several biochemical parameters at the membrane level
	Mahmoudi et al.	2010	Inhibition of carrageenan induced edema, atomic absorption spectroscopy, HPLC	Original research article	Pistacia lentiscus resin as an anti-inflammatory and antioxidant agent
	Montemurno et al.	2014	Data on gut microbiota and the link between food and health	Review	Diet with fibres and antioxidants ameliorate chronic kidney disease conditions and slow down its progression
	Georgiadis et al.	2015	Data available from NCBI Pubmed database on Chios Gum Mastic studies	Review	CGM has antioxidant, anti-inflammatory, hypolipidemic, anticancer, antidiabetic effect
	Ramirez-Anaya et al.	2015	Potato, tomato, eggplant and pumpkin in 3 different cooking methods with olive oil	Original research article	All cooking methods conserved or increased the antioxidant capacity
	Nooyens et al. / Doetinchem Cohort Study	2015	2613 persons aged 43–70 years	Cohort study	Intakes of antioxidants were not associated with cognitive decline
Diabetes	Tyrovolas et al. (the MEDIS Study)	2007	1190 me and women (aged 65–100 years) from 8 Mediterranean islands. Diabetes mellitus was defined as fasting blood glucose >125 mg/dl or use of specific medication	Original research article	21% of males and 23% of females had diabetes
	Ajala et al.	2013	Research on PubMed, Embase, and Google Scholar to August 2011	Systematic review and meta-analysis	Low-carbohydrate, low glycemic index, Mediterranean and high-protein diets are effective in the overall strategy of diabetes management

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Table 2
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Reference / Study	Year	Material / Methods	Type of study	Conclusion	
Georgoulis et al.	2014	Epidemiological and interventional studies	Review	Possible protective mechanisms of the Mediterranean diet against diabetes	
Ley et al.	2014	Research on PubMed and Google Scholar for original research articles, meta-analysis/systematic reviews and organization recommendations up to January 2014	Review	Diets rich in whole grains, fruit, vegetables, legumes, nuts, moderate alcohol consumption, lower refined grains, red/processed meats and sugar-sweetened beverages reduce diabetes risk	
Tyrovoulas et al. (the MEDIS Study)	2014	1959 elderly (65 to 100 years) from 13 Mediterranean islands. Socio-demographic, clinical and lifestyle factors were assessed	Original research article	A high number of elderly had diabetes, especially those living in high relative humidity areas	
Vitamin D / Osteoporosis	Puel et al.	2007	Published data on the relationship between osteoporosis and food	Review	Lowest incidence of osteoporosis in the Mediterranean area due to the Mediterranean diet and specific eating patterns
Braegger et al.	2013	Published data on vitamin D and recommendations for prevention of vitamin D deficiency	Review	In order to prevent vitamin D deficiency, food should be fortified with vitamin D and individuals exposed to the sun.	
Spiro et al.	2014	Published data on vitamin D intake and prevalence of vitamin D deficiency	Review	Strategies for adequate vitamin D: healthy lifestyle (normal BMI, diet with vitamin D, food fortification, sun exposure, oral supplementation)	

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Table 2
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	Reference / Study	Year	Material / Methods	Type of study	Conclusion
	Garcia-Martinez et al.	2014	Publications since 2001 with key words: Mediterranean Diet, virgin olive oil, phenols, bone, osteoblast, osteoporosis	Review	Olive oil phenols can be beneficial, preventing the loss of bone mass
	Goula et al.	2015	164 Greek patients with knee or hip osteoarthritis scheduled for joint replacement. Serum level of 25-hydroxyvitamin D were measured before and after the operation	Original research article	Big percentage of vitamin D deficiency despite the sunny weather
Iodine / Thyroid disorders	Chung HR	2014	Data on physiologic role of iodine, assessment of iodine nutrition, clinical implications of iodine deficiency or excess and iodine-relates thyroid problems in Korean Peninsula	Review	Iodine deficiency and iodine excess are associated with an increased risk of thyroid disorders
	Wang et al.	2015	Studies that assessed the association between vitamin D and autoimmune thyroid disease	Meta-analysis	Low levels of serum 25(OH)D was related to autoimmune thyroid disease
	American thyroid association		Iodine Deficiency FAQs	Article	Soil and seawater contain iodine. Its availability in foods differs in various regions of the world.
Methylmercury exposure	Gibicar et al.	2006	246 pregnant women, mothers and newborn babies from Eastern Aegean islands were tested for methylmercury exposure	Pilot study	Those who have high levels of methylmercury were women who consumed fresh local fish at least 3 times/week
	Castano et al. (DEMOCOPHES project)	2015	1799 mother-child pairs were tested for mercury in hair from 17 European countries in addition to their dietary habits	Original research article	Mercury exposure is highly correlated with consumption of fish and marine products

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	Reference / Study	Year	Material / Methods	Type of study	Conclusion
Gut microbiota	Shen L.	2014	Data on the beneficial effects of coffee consumption	Review	Coffee consumption can reduce the risk of non-alcoholic fatty liver disease and modulate the gut microbiota by the bioactive coffee components
	Kouris-Blazos and Itsiopoulos	2014	Findings from the FHILL study and other studies on Greek migrants to Australia and clinical studies investigating dietary mechanisms which could explain the “morbidity mortality paradox”	Review	Mediterranean diet and especially legumes may reduce the risk of death by altering the gut microbiome and its metabolites
Longevity / Successful aging	Beller S and Palmore E	1974	Data on the longevity in Turkey	Review	Longevity in Turkey is associated with blood types, good health, being male, normal weight and height, simple diets with little meat, smoking cessation, vigorous physical activity, marriage and sexual activity, social activity and a positive view of life
	Haveman-Nies et al. (the SENECA Study)	2003	Identification of dietary and lifestyle factors that contribute to healthy aging of 1091 men and 1109 women aged 70–75 years from European countries	Original research article	Healthy lifestyle at older ages is related to reduced mortality risk and to a delay in the deterioration of health status
	Pasini et al.	2008	112 women and 70 men (75–85 years) living in Brescia. Experimental program of specific physical activities	Original research article	Intake of antioxidants, adequate physical activity and genetic factors are important for healthy aging
	Tourlouki et al. (the MEDIS Study)	2010	Socio-demographic, clinical, psychological and lifestyle factors assessment of 1190 elderly (>65) men and women without cardiovascular disease	Original research article	Adherence to Mediterranean diet, mid-day naps, smoking cessation could contribute to longevity

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Table 2
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Reference / Study	Year	Material / Methods	Type of study	Conclusion
Tyrovolas et al. (the MEDIS Study)	2011	1959 elderly (65–100 years) from 13 Mediterranean islands. Assessment of socio-demographic, clinical and lifestyle factors and the presence of metabolic syndrome, among high and low altitude individuals	Original research article	A significant proportion of mountainous living elderly had the metabolic syndrome
Panagiotakos et al. (the Ikaria study)	2011	Socio-demographic, clinical, psychological and lifestyle characteristics of 89 men and 98 women (>80 years old) were assessed	Original research article	Physical activity, diet, smoking cessation and mid-day naps might contribute to the secret of the long-livers. Environment, behavior and clinical characteristics may determine longevity
Tyrovolas et al. (the MEDIS Study)	2014	2663 elderly, aged 65–100 years from 21 Mediterranean islands and rural Mani were enrolled in order to evaluate determinants of successful aging together with assessment of dietary habits in relation to healthcare facilities	Original research article	Successful aging is a multidimensional and complex concept
Tyrovolas et al. (the MEDIS Study)	2015	Role of energy balance in successful aging evaluation in 2663 elderly (65–100 years) from 21 Mediterranean islands and the rural Mani of Greece	Original research article	Diet with high energy intake and positive energy balance seems to be associated with lower quality of life

along with the immune system. The best condition is the existence of a great variety of bacteria in the intestine, because their absence could be a cause for inflammations. Foods, which lie far from the Mediterranean diet models, i.e., foods containing much animal protein, fat, sugar and very few dietary fibers but many simple carbohydrates, do not compose satisfactory microbiota or substantially beneficial bacteria. Thus, people who are close to the Mediterranean diet, receive in high quantities beneficial ingredients for the intestinal microbiota, such as probiotics from yogurt, cheese, olives, prebiotics from legumes, dried nuts, vegetables, fruit, olives, olive oil, coffee, honey, herbs and polyphenols from olives, olive oil, several spices, seasoning and wine [44] (Table 2).

5. Longevity and successful aging in Eastern Mediterranean Islands

Apart from the study of Ikaria Island no other analytical data on health and longevity of the Eastern Aegean Sea islanders could be found. According to the Ikaria Study, it has been shown that the “secrets” of longevity may include daily physical activity, abstention from smoking, midday siesta and, adoption of a healthy diet [11]. Actually, the inhabitants of Ikaria live for about 8 years more than the majority of people from other European countries. For example, the prevalence of cancer is 20% lower, of heart disease 50% lower and the rates of dementia among older people are very low. The reason why Ikarian islanders live longer, among others, is because of their culture which is rich in tradition and their family values. Ikarians know their neighbors and devote plenty of time to socializing. They enjoy wine, late-night mental games, such as domino, and an easygoing pace of life. The clean air, warm climate and rugged terrain keep residents outdoors and active [47]. The same happened with other Mediterranean islands, evaluating socio-economic, clinical, lifestyle and psychological characteristics of the aged, among which were Lesbos and Limnos, also islands of the same area. As a whole, the result was that the adoption and maintenance of the Mediterranean diet, the midday siesta and cease or abstention from smoking contributed to an important percentage of centenarian people [9] (Table 2).

6. Conclusions

The dietary habits observed in the Eastern Aegean, contribute to the reduction of the incidence of various hormone-dependent diseases (like diabetes mellitus, osteoporosis, thyroid diseases) as well as chronic diseases, such as cardiovascular [51, 52], neurological disorders [53] and some types of cancer [52]. Other characteristics of the local traditions, like family eating, harvesting of local products and low environmental stress may have contributed to the increased longevity rates observed in this area of the Mediterranean region.

Funding

Stefano Tyrovola’s work was supported by the Foundation for Education and European Culture (IPEP), the Sara Borrell postdoctoral programme (reference no. CD15/00019 from the Instituto de Salud Carlos III (ISCIII – Spain) and the Fondos Europeo de Desarrollo Regional (FEDER).

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