Editorial

The Mediterranean diet: culture, health and science

First described in the Seven Countries Study in the 1960s, lower mortality rates for cardiovascular disease (CVD) are obvious in the Mediterranean region, and a particular dietary pattern is postulated to account for these findings, different from those in other European areas. Further observational studies have highlighted the potential health benefits provided by the adherence to a Mediterranean dietary pattern, through the reduction of risk factors for the majority of non-communicable diseases (metabolic syndrome and type 2 diabetes, CVD, certain types of cancer, cognitive decline, depression and mental disorders).

Data from analytical and experimental studies indicate a relationship between reduced risk of the most common chronic degenerative diseases and a dietary pattern based on high consumption of vegetables and fruit, cereals and whole grains, pulses (mainly as source of dietary fibre), nuts, fish, olive oil as the main (added) fat, low-fat dairy products, corresponding to the Mediterranean dietary pattern, whereas increased total calorie intake and body weight, especially excess body fat, overconsumption of animal fat and (red) meat, sugar and processed food, were found to be associated with a greater risk of these diseases.

Interestingly, dietary characteristics of the Mediterranean pattern, considered as a whole, seem to have more beneficial effects (e.g. favourable health outcomes and a better quality of life) than dietary interventions based on single dietary components. Favourable health effects may be attributed to the synergistic combination of a balanced ratio of n-6 and n-3 essential fatty acids, high oleic acid content, and high amounts of dietary fibre, antioxidants and polyphenols, resulting in antioxidant, anti-inflammatory, and anti-thrombotic properties, preventing lipoperoxidation, improving lipid profile and endothelial function.

Furthermore, other non-nutritional aspects, indirectly linked to eating behaviour, such as social, cultural, economic and environmental features, have been suggested to contribute to the beneficial effects of adherence to the Mediterranean dietary pattern. Consumption of fresh and local products, in terms of seasonality, biodiversity, traditional culinary activities and conviviality, as well as the variety of foods (especially in terms of different colours of fruit and vegetables), represents the cornerstone of the Mediterranean dietary pattern. Cultural and nutritional aspects, jointly with regular engagement in physical activity, are fundamental parts of this comprehensive Mediterranean model or lifestyle.

Socio-cultural aspects are pivotal in the Mediterranean model, making it different from all the other dietary models. Identification of the symbolic value of food has led to the creation of strong links between local food and local heritage and identity; from an environmental and economic point of view, production of typical foods of the Mediterranean diet typically occurs in a sustainable way, contributing to rural development and the preservation of biodiversity.

Although the Mediterranean diet is the result of the millenary history of the Mediterranean basin, transmitted from generation to generation, a continuous evolution of the original model has occurred in different communities and groups in the Mediterranean area in response to changes linked to environment and historical events. The general term ‘Mediterranean diet’ implies a common dietary pattern in Mediterranean countries; however, Mediterranean diets are far from homogeneous, including a wealth of extremely variable, typical products. Differences in crops and dietary patterns of the Mediterranean populations reflect various food cultures and traditions, religious and cultural differences, diverse geographical and ecological environments, the succession of different dominant peoples (Greeks, Carthaginians, Romans, Arabs, Byzantines, Ottomans, Spanish, Portuguese, etc.). In recent decades, the central role played by the Mediterranean Model in social and cultural life in the Mediterranean area...
has been deeply influenced by the evolution of traditional values towards post-modern values as well as the globalised production system\(^1\). In particular, the collective environment (due to the spread of compulsory schooling and to a different organisation of working time) is gradually replacing the traditional family group, and young people’s tastes are now formed, to a large extent, outside the family nucleus, in places where food production and provision are simplified and industrialised, rarely reflecting Mediterranean traditions.

Recently, different events have modified the Mediterranean diet (urbanisation, integration of women into the labour market, retail development, reduction of household members and of generations living together, economic globalisation) by introducing changes in lifestyle, in distribution and sales of foods, in the selection of crops, in intensive monocultures and in livestock farming techniques. This global change entails socio-economic aspects (small-scale farmers have been forced to abandon their land, price volatility has a strong impact on poor and food importing countries, food waste is increasing along the food chain due to poor harvesting techniques and post-harvest processes, difficulties in transport and storage procedures, climate conditions) and the loss of knowledge and practices that have contributed historically to the identity of Mediterranean peoples and have configured a rich and complex food universe in the Mediterranean area. Moreover, economic changes have deeply affected the Mediterranean lifestyle, leading to the westernisation of food consumption patterns in the Mediterranean area.

The reduced environmental impact (H\(_2\)O, N and C footprint) of the Mediterranean diet is an additional positive aspect of the Mediterranean dietary model. In particular, water scarcity is the most critical problem all over the world in the production of foodstuffs and the single most important factor in limiting agricultural growth. Thus, improving water demand management, water saving and rational water use, especially in agriculture, is of paramount importance for sustainability. A dietary pattern based mainly on products of the Mediterranean basin is our definitive concern.

In the Mediterranean diet. From the foods to the whole pattern of the Mediterranean diet are collected. The different papers present to this supplement, a selection of the best papers presented to this meeting to be a major scientific event with more than 500 delegates. In the present British Journal of Nutrition supplement, a selection of the best papers presented to this important event have been collected. The different papers offer an updated review of the different foods and their role in the Mediterranean diet. From the foods to the whole pattern is our definitive concern.

Lorenzo M. Donini\(^1\)
Iluis Serra-Majem\(^2,3\)
Mónica Bullo\(^3,4\)
Angel Gil\(^5,6\)
Jordi Salas-Salvadó\(^3,4*\)