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Review

Traditional foods: a science and society perspective

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Traditional foods reflect cultural inheritance and have left their imprints on contemporary dietary patterns. They are key elements for the dietary patterns in different countries and consequently are important to accurately estimate population dietary intakes. However, this information is missing from most current national food composition databases. EuroFIR aims to enrich national food composition tables that lack nutrient data on traditional foods and to provide data on selected bioactive components. In this context, a common definition of traditional foods has been agreed upon for the classification of traditional foods in European food composition tables. A list of traditional foods, for which analytical nutritional and bioactive data will be provided, has been developed.

Introduction

Traditional foods are an expression of culture, history and lifestyle. Despite the fact that we are living in a world of globalization, different dietary patterns between countries do exist, as Slimani *et al.* (2002) have reported. The study of traditional foods offers an important insight into dietary patterns and how these have been shaped through time.

Traditional foods and patterns may have potential health properties which, importantly, have been tested over time. For instance, this has been shown for the traditional Mediterranean diet on the basis of observational studies and physiological arguments (Willet, 2006) and even randomized trials (Estruch *et al.*, 2006). For this reason, the current public interest in nutrition and healthy eating has contributed to the increased demand for traditional foods, with a consequent increased interest among food manufacturers. Allende, Tomas-Barberan, and Gil (2006) have shown how the industry has tried to adjust when consumer pressure was developed towards fresh-cut plant products.

Most current national food composition databases are lacking data on country-specific traditional foods as pointed out by Harrison (2004). This information is necessary for national databases in order to accurately estimate population dietary intakes as well as for product labeling. The European Food Information Resource Network (EuroFIR) aims to provide comparable or harmonized data on the nutritional composition of traditional foods across selected European countries by chemically analyzing selected recipes and harmonizing existing compositional data. Comparability will focus on specifying processes and nutrients and harmonization will rely on adherence to agreed upon standards. In addition EuroFIR will determine selected bioactive components for inclusion in the ''Bioactive Substances in Foods Information System'' (EuroFIR BASIS database), thus providing insight on the potential health promoting properties of the recipes (Kris-Etherton *et al.*, 2002).

Dietary patterns in Europe

Nutritional epidemiology sets among its priorities documenting and monitoring dietary habits in the context of planning national food and nutrition policies as well as evaluating nutrition education strategies. Early efforts in documenting dietary habits were focused on identifying specific nutrients that may be responsible for effects on people's health. However, research has also expanded towards studying patterns of food intake (Trichopoulou & Naska, 2002). The reason for shifting research towards dietary patterns stems from the fact that dietary exposures are unusually complex and strongly intercorrelated. Current data suggest that apparent favourable effects cannot be exclusively attributed to specific nutrients since in several instances these nutrients may act synergistically (Gerber *et al.*, 2000).

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Publications derived from food consumption surveys focus mainly on presenting dietary intakes in terms of individual foods and/or nutrients consumed. Diet, however, is multidimensional and shaped by various factors, including physiological, agricultural, historical, religious, socioeconomic and psychological ones (Gedrich, 2003).

The analysis of standardized and post-harmonized data collected through the national household budget surveys network (DAta Food Networking-DAFNE database, www.nut.uoa.gr) has demonstrated that dietary patterns differ and change over time in European countries under the influence of various socio-demographic factors (Naska *et al*., 2006) (Figs. 1 and 2). This has been demonstrated in the 16 European countries included in the DAFNE database (Austria, Belgium, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Norway, Poland, Portugal, Spain, Sweden, and United Kingdom).

The study of European dietary patterns has revealed the existence of discrepancies in diet, in the sense that food purchase and consumption at the individual, household, or community level are influenced by the local availability of foods and the cultural and socioeconomic environment. Nevertheless, a trend for assimilation is evident and perhaps unavoidable. In the 1960s the diet of the Mediterranean populations was characterized by high consumption of fruits and vegetables as opposed to the low consumption of these foods in the Northern European populations. These large differences appear to be diminishing as contemporary patterns reveal Mediterranean populations straying from their traditional dietary choices (Karamanos *et al*., 2002), whereas Northern European populations increase the consumption of fruits and vegetables. The reduced contrasts have been documented by, among others, Karamanos *et al*. (2002) and by Trichopoulos and Lagiou (2004).

The contemporary dietary patterns of the Mediterranean populations are characterized by the relatively high consumption of vegetable oils and in particular olive oil (which is the predominant lipid added by inhabitants of Greece), pulses, red meat, poultry, fish and seafood. For the Northern European populations the dietary patterns are characterized by high daily availability of vegetable and animal fats (Fig. 3). Although the disparities in food choices between the Northern and Southern European populations are progressively narrowing, in the case of foods which traditionally characterize the culture of a region, such as olive oil and pulses, a clear North/South gradient is still obvious and is shown in Fig. 3.

The role of traditional foods in dietary patterns

It has been shown that differences in dietary patterns between European populations living in different geographical regions as well as between populations in the same region do exist (Slimani *et al*., 2002), although they are narrowing as reported by Trichopoulos and Lagiou (2004). These differences should be welcomed as they represent an acknowledgment of our traditions. The North/South gradient in European dietary patterns is a reflection of differences of climatic, agricultural and economic conditions in the corresponding populations. In most cases, the variety in dietary habits derives from the fact that inhabitants had to adjust to climatic conditions. In order to be self-sufficient people have developed methods of farming, processing and preserving suitable foods. As time passed and societies evolved, the dietary choices were embodied in the culture and nutritional choices, including traditional foods, became parts of their collective identity as also indicated by Behar (1976).

Key elements of nutritional differences are traditional foods. They are foods that have been consumed regionally or locally for an extensive time period. The consumption of many traditional foods can be traced back to centuries ago. Traditional foods reflect cultural inheritance and have left their imprints on the respective dietary patterns, despite the fact that contemporary lifestyles do not encourage their preservation in our daily lives and customs.

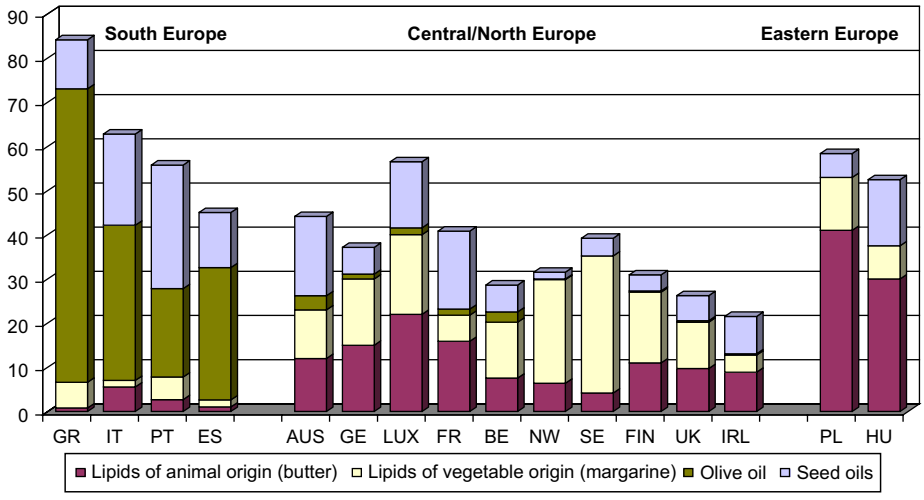

Fig. 1. Mean daily availability of total added lipids by type in the DAFNE countries, g/person/day (data collected in the 1990s). Source: The DAFNE databank (www.nut.uoa.gr/dafnesoft).