

Indicators and Sustainability Dimensions of the Mediterranean Diet

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Abstract : The Mediterranean diet has been recognized as a sustainable model of living with benefits for the environment and human health. However, a complete assessment of its sustainability, encompassing all dimensions and aspects, to our best knowledge, has not yet been realized. This systematic literature review aimed to fill this gap by identifying and describing the indicators used to assess the sustainability of the Mediterranean diet, looking at several dimensions, and presenting the results from their application. The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines methodology was used, and searches were conducted in PubMed, Scopus, Web of Science, and GreenFile. There were identified thirty-two articles evaluating the sustainability of the Mediterranean diet. The environmental impact was quantified in twenty-five of these studies, the nutritional quality was evaluated in seven studies, and the daily cost of the diet was assessed in twelve studies. A total of thirty-three indicators were identified and separated by four dimensions of sustainability, specifically, the environmental dimension (ten indicators, namely carbon, water, and ecological footprint), the nutritional dimension (eight indicators, namely Health score and Nutrient Rich Food Index), the economic dimension (one indicator, the dietary cost), the sociocultural dimension (six indicators - with no results). Only eight of the studies used combined indicators. The Mediterranean diet was considered in all articles as a sustainable dietary pattern with a lower impact than Western diets. The carbon footprint ranged between 0.9 and 6.88 kg CO₂/d per capita, the water footprint between 600 and 5280 m³/d per capita, and the ecological footprint between 2.8 and 53.42 m²/d per capita. The nutritional quality was high, obtaining 122 points using the Health score and 12.95 to 90.6 points using the Nutrient Rich Food Index. The cost of the Mediterranean diet did not significantly differ from other diets and varied between 3.33 and 14.42€/d per capita. A diverse approach to evaluating the sustainability of the Mediterranean diet was found.

Keywords : Mediterranean diet, sustainability, environmental indicators, nutritional indicators

Conference Title : ICFSASFS 2023 : International Conference on Food Science and Sustainable Food Safety

Conference Location : San Francisco, United States

Conference Dates : September 25-26, 2023