

## Adherence to a Mediterranean diet among adults in Ireland: a cross-sectional study

T. Raad<sup>1</sup>, A. Villani<sup>2</sup>, A. Papadaki<sup>3</sup>, A. Griffin<sup>1</sup>, C. Norton<sup>4</sup>, E. Mantzioris<sup>5</sup> and A. Tierney<sup>1</sup>

<sup>1</sup>Faculty of Education and Health Sciences and Health Implementation Science and Technology Centre, Health Research Institute, University of Limerick, Limerick, Ireland,

<sup>2</sup>School of Health and Behavioural Sciences, University of the Sunshine Coast, Queensland, Australia,

<sup>3</sup>Centre for Exercise, Nutrition and Health Sciences, School for Policy Studies, University of Bristol, Bristol, UK,

<sup>4</sup>Department of Physical Education & Sport Sciences, Faculty of Education and Health Sciences, Health Research Institute, University of Limerick, Limerick, Ireland and

<sup>5</sup>Clinical and Health Sciences, Alliance for Research in Exercise, Nutrition and Activity (ARENA), University of South Australia, Adelaide, Australia

The Mediterranean diet (MedDiet) is a predominantly plant-based diet, characterised by a high consumption of fruits, vegetables, nuts, legumes, fish and whole grains; low consumption of red meat and confectionary and where extra virgin olive oil is the main source of added fat. The MedDiet is one of the healthiest diets worldwide, with substantial evidence for its protective effects against non-communicable diseases<sup>(1)</sup>. Given that the health benefits are extensively recognised, it is fundamental to consider the feasibility of adherence to the MedDiet, particularly among non-Mediterranean countries. This study aimed to examine the self-perceived level of adherence to a MedDiet in community-dwelling adults in Ireland. Differences in socio-demographic factors with levels of adherence to the MedDiet were also investigated.

A cross-sectional study was conducted among  $n = 156$  adults aged  $\geq 18$  years (73.7% females) living in Ireland. Participants were recruited via social media platforms and data was collected using a previously validated 36-item self-administered online questionnaire<sup>(2)</sup>. The first part of the questionnaire consisted of open and closed ended questions relating to participants' demographic characteristics; the second part assessed participants' adherence to MedDiet using the validated 14-item Mediterranean Diet Adherence Screener (MEDAS)<sup>(3)</sup>. Adherence scores ranged from 0 to 14, with higher values suggesting greater adherence. Adherence was categorized as low if scores were between 0–4, moderate with scores 5–8 and high with scores 9–14.

Age was reported across age ranges with 53.2% between the age of 35 and 54 years. Mean body mass index (BMI) was  $24.9 \pm 7.1$  kg/m<sup>2</sup>. The majority of respondents (65.4%) reported no underlying medical conditions. On average, participants reported moderate adherence to the MedDiet ( $5.6 \pm 2.4$ ) with only 14.1% ( $n = 22$ ) reporting high adherence ( $9.4 \pm 0.7$ ). A small number of participants adhered fully to the MedDiet specific recommendations for olive oil ( $n = 7$ , 4.5%), wine ( $n = 9$ , 5.8%), fish ( $n = 22$ , 14.1%) and legumes ( $n = 35$ , 22.4%). Over three-quarters of participants (78.7%) reported having  $\geq 2$  servings of vegetables per day and 63% preferentially reported consuming white meat over red and processed meats. Although not statistically significant, a trend towards higher adherence to the MedDiet was observed among individuals with higher levels of education.

A moderate adherence to the MedDiet was found in this study. Adherence to key elements of the diet such as olive oil, fish and legumes were reported. These findings highlight the need for culture-specific intervention strategies that promote the adoption of the MedDiet as a healthy dietary pattern. Additional studies are needed to investigate the perceived barriers and enablers towards adhering to a MedDiet and to explore the levels of knowledge of this dietary pattern among people in Ireland.

### References

1. Tosti V, Bertozzi B & Fontana L (2018) *J Gerontol Series A*, **73**(3), 318–326
2. Scannell N, *et al.* (2020) *Int J Environ Res Public Health* **17**(24), 9321
3. Martínez-González MA, *et al.* (2012) *PloS one* **7**(8), p.e43134