



## 604 - EXPLORING DIETARY PATTERNS IN VEGANS, VEGETARIANS AND OMNIVORES USING AN UNSUPERVISED CLUSTERING METHOD

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### Resumen

**Background/Objectives:** In the last decade, plant-based diets including vegetarian and vegan diets have reached a prevalence of 10-15% in Spain. No study has attempted to characterize the food intake of current plant-based dietary patterns. This study aims to explore the dietary habits and patterns of people who self-identify as omnivores, vegetarians: ovolacto-vegetarians (OVE) and pesco-vegetarians (PVE); or vegans (VGN).

**Methods:** OMIVECA is a cross-sectional study that collected dietary information with a 175-item food consumption frequency questionnaire. Intake transformed into grams/day (g/d) and adjusted for total caloric intake (2,000 kcal per day) was grouped into 28 categories. Food intake by type of diet was compared with ANOVA tests (significance level: 5%). Hierarchical clustering analysis (HCA) was applied to explore differences in dietary patterns further.

**Results:** A total of 737 participants were included (73.3% women, mean  $\pm$  SD age:  $25.6 \pm 8.9$  years); 144 identified as non-omnivores (45 VGN, 70 OVE, 29 PVE). Daily consumption of vegetables and mushrooms was higher in the plant-based groups ( $> 428$  g/d) compared to omnivores ( $p < 0.001$ ). Vegans reported consuming fewer ( $p < 0.001$ ) precooked meals (14.5 g/d) than the rest ( $> 25$  g/d). In HCA, three main clusters were observed. The first cluster, featuring a plant-based diet, included individuals with vegan, vegetarian diets and a group of omnivores. This pattern was characterized by a low intake of meat, fish and seafood, refined cereals, sugary foods and a high consumption of legumes, vegetables, spices, and nuts. In contrast, the second cluster represented an unhealthy omnivorous diet, characterized by a high intake of meat and its derivatives, refined cereals, sauces, sugar, and non-alcoholic beverages (bottled juices and soft drinks), alongside a low consumption of fish and seafood, vegetables, legumes, nuts, and whole grain cereals. A third intermediate cluster grouped individuals with a lower intake of sugar, sweets, pastries, cookies, and sauces, while exhibiting a moderate consumption of both refined and whole grain cereals, legumes, vegetables, and fish and seafood.

**Conclusions/Recommendations:** Preliminary results of the OMIVECA study reveal significant differences in dietary habits between omnivores, vegetarians and vegans, beyond the exclusion of foods of animal origin.

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