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Associations between risk of malnutrition with dietary intake in people of older age: results from the HELIAD study

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Abstract

Introduction: Life expectancy has increased leading to a concomitant increase in the population of older people. Malnutrition, a major problem in this age group, deteriorates their health and quality of life. The association between risk of malnutrition and dietary intake has not been investigated sufficiently. The aim of this study was to examine potential associations between risk of malnutrition and dietary intake in a representative cohort of adults ≥ 65 years old.

Materials and methods: 1,831 older people (mean age 73.1 ± 5.9 years old) from the HELIAD study were included in the analyses. Risk of malnutrition was assessed with the "Determine your Nutritional Health" checklist. Total score of the questionnaire ranges from 1–21, with 0–2 indicating good nutritional status, 3–5 moderate nutritional risk and ≥ 6 high nutritional risk. Dietary intake was evaluated with a semi-quantitative food frequency questionnaire, validated for the Greek population, from which consumption of specific food groups (non-refined cereals, fruits, vegetables, legumes, fish, red meat, poultry, fish, dairy products, alcohol and sweets in servings/day) was estimated, as well as adherence to the Mediterranean diet, using a relevant *a priori* score.

Results: 35.8% of the participants were well-nourished, 34.8% were at moderate nutritional risk and 29.4% were at high nutritional risk. Total energy intake did not differ between the groups (1,984 ± 500 kcal/day for those well-nourished, 1,995 ± 537 kcal/day for those at moderate nutritional risk and 1,934 ± 566 kcal/day for those at high nutritional risk, $p = 0.140$). Well-nourished older people consumed per day more portions of vegetables, fruits, legumes, poultry, sweets and fewer portions of alcohol compared to those at moderate and high risk (all $p < 0.05$). Furthermore, adherence to the Mediterranean diet differed significantly between the groups, i.e. those well-nourished had greater adherence to the Mediterranean Diet compared to the other groups ($p < 0.001$).

Discussion: Although energy intake did not differ between the groups, there were significant differences in quality of their diet, as this was depicted in specific food group intake and adherence to a healthy dietary pattern. Thus, health experts should also consider diet quality when screening malnutrition in this vulnerable age group.

Conflict of Interest

There is no conflict of interest