

Assessment of Nutritional Status and Dietary Intake of Institutionalized Elderly People in Viseu

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ABSTRACT

BACKGROUND: In elderly people inadequate dietary intakes, by deficit or in excess, may decrease the quality of life and increase morbidity and mortality in the elderly people^[1,2] Malnutrition is highly prevalent in institutionalized elderly and often remains undetected or unaddressed^[3]. This suggests that the nutritional status of this population should be appropriately evaluated and improved.

OBJECTIVES: The present study aims to assess the nutritional status and dietary intake of institutionalized elderly subjects in Viseu, Portugal. **METHODS:** An observational study was carried out on 15 institutions. Participants were voluntary residents aged 65 and older, who had been living in the institution for at least 3 months, were not bedridden and had no psychiatric disorders or dementia. Nutritional screening was performed using the body mass index (BMI)^[4] and the Mini Nutritional Assessment score (MNA)^[5], whereas dietary intake was assessed using a three-day food intake record. **RESULTS:** The mean age of the subjects (n=214) was 82,3±6,1 years-old. The majority were women (72,0%). Average BMI was 27,6±4,6Kg/m² for men vs 28,6±4,9 Kg/m² for women, with 57,9% classified as overweight (27,4% men, 72,6% women). According to their MNA scores, 28% of elderly were considered at risk of malnutrition (RM), 80,0% of which were women. A statistically significant difference(p<0,05) in energy intake was found between women at risk of malnutrition and those with a normal nutritional status between energy intake (average 1621,2±326,0Kcal/day vs 1747,3±294,5Kcal/day respectively). This was not observed in men, despite their higher average energy intake (1635,7±326,8kcal/day vs 1820,4±328,4Kcal/day). Women at risk of malnutrition also



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had lower ingestion of protein, lipids, fibre, water, thiamine, folic acid, vitamin B12, ascorbic acid, magnesium, zinc, sodium, potassium and phosphorus ($p < 0,05$), whereas in men, significant differences were observed in water, fibre, folic acid, retinol, iron, magnesium and fluorine intakes. In both genders, higher BMI classes were found to have greater energy intakes, as well as an increased micro and macronutrient consumption ($p < 0,05$). **CONCLUSION:** Our study showed that a significant proportion of our population of institutionalized elderly seem to be at a high risk of malnutrition. Women seem to be particularly vulnerable, with those at risk of malnutrition showing inappropriate energy and nutrient intakes when compared to those with a normal nutritional status. These findings stress the importance of an adequate nutritional screening of institutionalized elderly, in order to develop interventions for this particularly vulnerable population.

Keywords: *elderly; food consumption; institutionalized, nutritional status; mini-nutritional assessment*

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