



ABSTRACT

Impact of an oral nutritional supplement on improving body composition in older adults with malnutrition : A randomized controlled trial

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Background and objectives : The consequences of malnutrition in the elderly often manifest as weight loss and altered body composition. The aim of this study was to assess the efficacy of an oral nutritional supplement (ONS) on body composition in malnourished older adults.

Methods : This was an open-label, randomized-controlled, parallel-group study. Inclusion criteria were age ≥ 60 years, and mini nutrition assessment (MNA) score ≤ 11 . Participants with oral feeding difficulties, lactose intolerance and being bedridden were excluded. A total of 50 participants were randomly assigned to the intervention (IG) and control (CG) groups (1:1 ratio). The IG received the ONS [57 g/day (247 kcal/serving, 12 g protein)] before bedtime for 12 weeks, while the CG received a glass of water. Anthropometric measurement and body composition analysis were performed at the beginning and end of the study.

Results : A sample of 42 older adults (IG: n=20, and CG: n=22) completed the study. The mean age of the IG was 75.38 ± 6.05 years, and the CG was 74.84 ± 5.22 years ($p=0.732$). IG participants exhibited a significant weight gain ($+1.68 \pm 1.16$ vs. -0.46 ± 0.95 kg; $p < 0.001$) and a significant increase in lean mass ($+1.23 \pm 0.93$ vs. -0.45 ± 0.90 kg; $p < 0.001$) and fat mass ($+0.54 \pm 0.82$ vs. -0.06 ± 0.82 kg; $p=0.021$). One-quarter of the intervention group (n=5) achieved a weight gain $\geq 5\%$ of body weight, whereas none in the control group did ($p=0.012$). No significant changes observed in bone mineral content in the IG ($p=0.771$).

Conclusion : Supplementing with ONS was found to be effective in improving body composition in malnourished older adults.

Keywords: Body composition, Malnutrition, Older adults, Oral nutritional supplement

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