Digitally supported dietary counseling increases protein intake in community dwelling older adults: preliminary results of the VITAMIN RCT

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Publication date
2018
Document Version
Final published version

Hogeschool van Amsterdam
Amsterdam University of Applied Sciences

DIGITALLY SUPPORTED DIETARY COUNSELING INCREASES PROTEIN INTAKE IN COMMUNITY DWELLING OLDER ADULTS

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Rationale

In order to prevent sarcopenia in community dwelling older adults a higher daily protein intake is needed. A new e-health strategy for dietary counseling was used with the aim to increase total daily protein intake to optimal levels (minimal 1.2 g/kg/day, optimal 1.5 g/kg/day) through use of regular food products.

Methods

The VITAMIN (VITal AMsterdam older adults IN the city) RCT included 245 community dwelling older adults (age ≥ 55y): control, exercise, and exercise plus dietary counseling (protein) group.
Dietary intake was measured by a 3-day dietary record at baseline and after 6 months intervention. In total 173 subjects were eligible for analysis. A two-way mixed ANOVA with time, group, and time*group interaction was performed. Post-hoc Bonferroni was performed with significance level at $p<0.05$.

Conclusion

This study shows digitally supported dietary counseling improves protein intake sufficiently in community dwelling older adults. Protein intake increase by counseling with e-health is a promising strategy for dieticians and health care professionals in order to support healthy ageing.

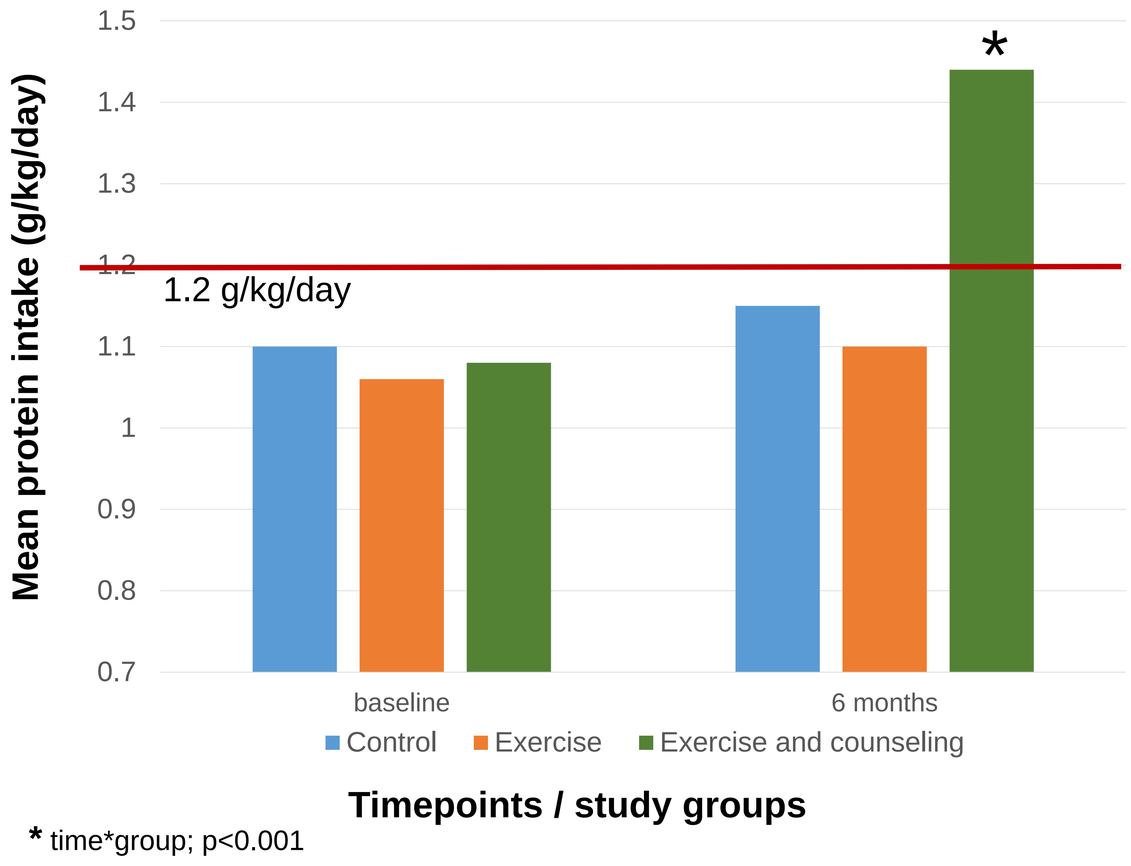

Figure 1. Mean protein intake of the study groups of community dwelling older adults.

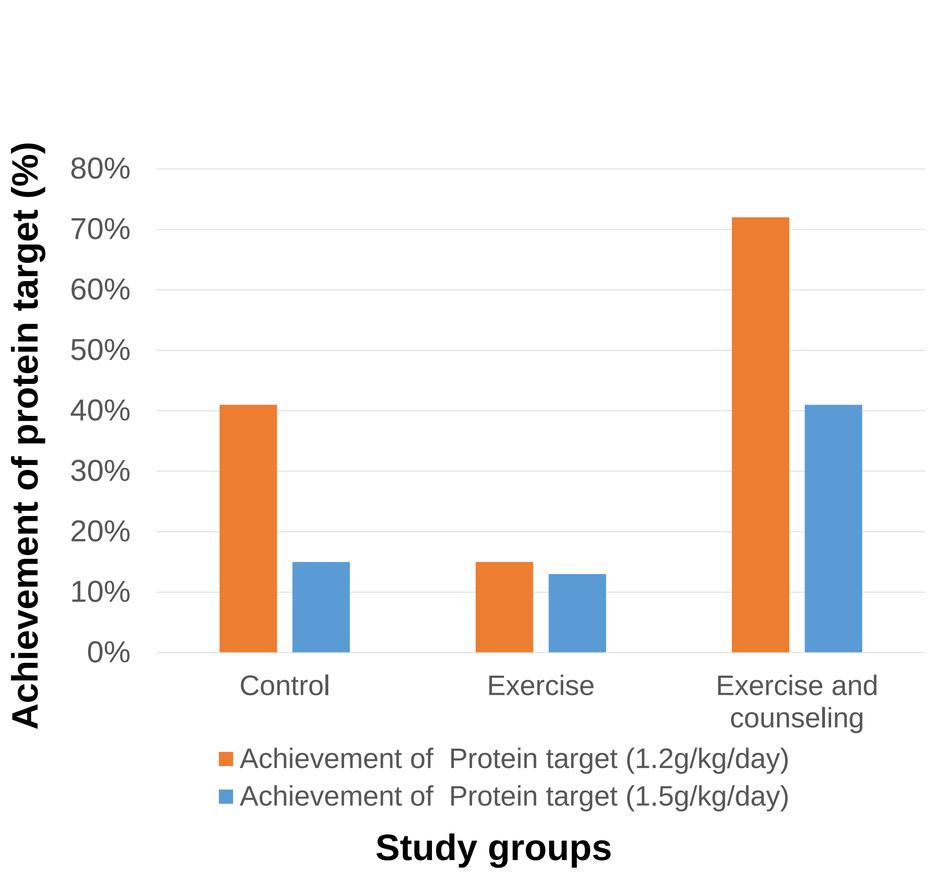

Figure 2. Achievement of protein intake recommendations for the study groups of community dwelling older adults.

Results

Mean age of the subjects was 72.1±6.3, with a BMI of 25.7±4.2 of which 68% were females. ANOVA revealed significant effect of time, group and time*group ($p<0.001$). Figure 1 shows higher protein intake over time in the dietary counseling group than either control ($p=0.038$) or exercise ($p=0.008$) group. Additional analyses revealed no change in vegetable protein intake. The higher protein intake was fully accounted for by animal protein intake. In the dietary counseling group 72% of subjects increased protein intake above the minimum intake level and 41% of the subjects above optimal level (see Figure 2).

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