Digitally supported dietary counseling increases protein intake in community dwelling older adults: preliminary results of the VITAMIN RCT
van den Helder, J.; van Dronkelaar, C.; Tieland, M.; Weijs, P.J.M.

Citation for published version (APA):
DIGITALLY SUPPORTED DIETARY COUNSELING INCREASES PROTEIN INTAKE IN COMMUNITY DWELLING OLDER ADULTS

J. van den Helder1,2, C. van Dronkelaar 1, M. Tieland1, P.J.M. Weijs1,3 and VITAMIN research group1,2,3,4

1 Faculty of Sports and Nutrition, Amsterdam University of Applied Sciences, Amsterdam, The Netherlands; 2 Amsterdam Center for Innovative Health Practice (ACHIeve), Faculty of Health, Amsterdam University of Applied Sciences, Amsterdam, The Netherlands; 3 Department of Nutrition and Dietetics, Amsterdam University Medical Centers, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands; 4 CREATE-IT Applied Research, Faculty of Digital Media and Creative Industries, Amsterdam University of Applied Sciences, Amsterdam, The Netherlands.

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 dietitians and health care professionals in order to support healthy ageing.

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).

Correspondence
J.e.m.van.den.helder@hva.nl / Jantine van den Helder, Faculty of Sports and Nutrition, Amsterdam University of Applied Sciences, Dokter Meurierlaan 8, 1067 SM Amsterdam, The Netherlands