



The facilitators and barriers to oral nutritional supplement adherence in older adults with home care and sarcopenia risk within the POWER randomised control trial

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Introduction



- Older Adults - 2033 1 in 6 people will be ≥60 years.
- Receiving Home Care - people receiving home care services had the highest prevalence of PEM at 14.6%
- Community-dwelling - Probable sarcopenia was 20.8% and confirmed sarcopenia was 8.1%



Aim

This study aimed to assess adherence to, and acceptability of an ONS enriched with leucine and vitamin D

 ≥70 years	 Community-Dwelling
 Home care recipient	 ≥1 SARC-F (out of 10)

Methodology

(1) Adherence

- Defined as ≥71% consumption (≥10 of 14 bottles/week)
- Counted used & unused bottles (Hill et al., 2019)
- ONS adherence was analysed using a one-sample t-test, where in 71% (119 ONS over the 12-weeks) was used as the fixed value.

(2) Acceptability

- Quantitative: Hedonic
- 9-point hedonic scale (taste, texture, overall acceptability)
- 5-point scale (appearance, smell, taste, aftertaste)
- Purchase intent
- Cronbach's alpha to measure for internal consistency.

(3) Difference between adherers vs non-adherers

- Baseline to post-intervention comparison of those adhering to the ONS (≥71% ONS consumed) with non-adherence (<71%)
- Wilcoxon Signed-Rank test - non-parametric test for Within-group change
- Statistical significance was set at $p < 0.05$.



Participants

23 allocated to ONS+RT

19 completed intervention

Baseline characteristics (n=23):

Mean age: 77 years (25th-75th quartile: 73-81 years)

Median weight: 70.4 kg (25th-75th quartile: 59.0-81.1 kg)

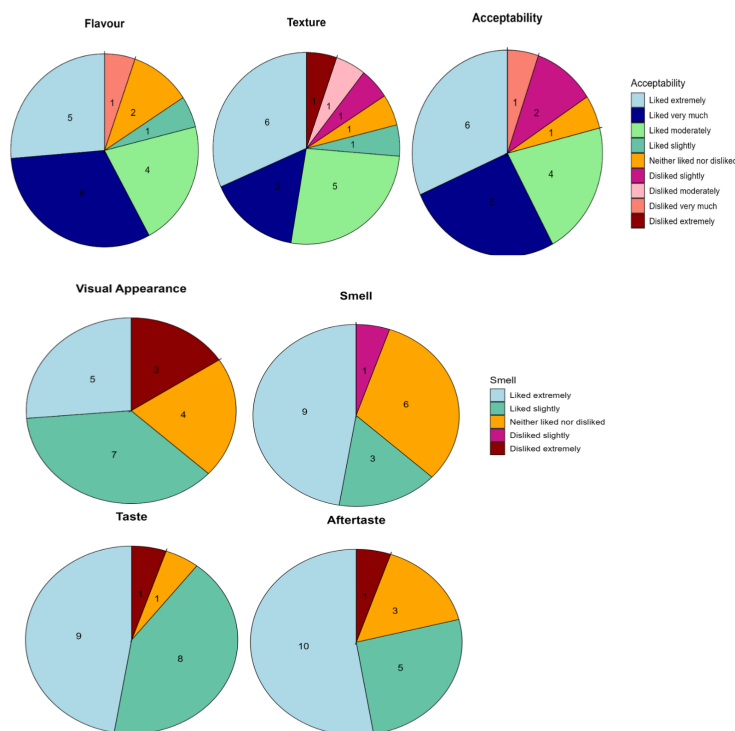
Median BMI: 26 kg/m² (25th-75th quartile: 26 - 29.6 kg/m²)

Results

(1) Adherence

Median adherence 77% (IQR)
11 (%) participants were adherent
3 (%) participants consumed 100% of ONS

(2) Acceptability Results 9-point hedonic scale and 5-point hedonic scale ;
Cronbach's $\alpha = 0.83 \rightarrow$ strong internal consistency



(3) Thematic analysis

Texture/Consistency
Flavour/Taste
Integrating ONS into routine

(4) Baseline to post-intervention statistically significant increases

Adherent participants:

- BMI $p = 0.008$
- Energy intake (kcal/day) $p = 0.003$
- Protein (g/day) $p = 0.041$
- Percentage energy from protein $p = 0.003$
- Leucine intake $p = 0.008$
- Vitamin D intake $p = 0.016$

Non-adherent participants:

- Only vitamin D increased significantly $p = 0.017$

Post-intervention Adherent vs Non- Adherent statistically significant increases

Protein (g/day) and Leucine (g/day) significantly higher in adherent group

No significant difference in BMI or energy intake between groups

Conclusions

58% adhered ≥71% of ONS

High acceptability: flavour, texture, aftertaste rated positively

Barriers: lumpiness, sweetness; Facilitators: mixing, routine

Adherent vs Non-Adherent - Protein ($p = 0.041$) & leucine ($p = 0.008$)

Fallon CM, Cunningham CG, Horner K, Corish CA. Oral nutritional supplement combined with an online resistance training programme to improve physical function and nutritional status in older adults receiving home care and at risk of sarcopenia: protocol for the randomised controlled POWER trial. HRB Open Research. 2026 Jan 20;8:41.

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