## **Table S1: Sensitivity analysis for intervention effects**

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| --- | --- | --- | --- |
|  | **Baseline, T0** **(n = 144)** | **Follow-up after 6 months, T1 (n = 106)** | **Follow-up after 18 months, T2 (n = 71)** |
|  | **Estimated score [95% CI]** | **Estimated score [95% CI]** | **Estimated score [95% CI]** |
| **QoL-AD total score (13 – 52, primary outcome, without ongoing inclusion)**n = 154 residents (missings possible because of covariates 1 \* 35; 2 \* 53; 3 \* 60)a **pg =** 0.18**, pt =** 0.36 **pgt =** 0.09 |
|  |  |  |  |
| Group A (DCM experienced) | 32.14 [28.96 – 35.33] | 32.12 [28.80 – 35.44] | 31.25 [27.74 – 34.77] |
| Group B (DCM) | 33.09 [30.04 – 36.15] | 28.41 [25.28 – 31.55] | 26.82 [23.56 – 30.08] |
| Group C (Regular QoL-rating) | 30.11 [27.09 – 33.13] | 32.40 [29.27 – 35.54] | 31.75 [28.33 – 35.18] |
| Covariates for adjustment: mean; regression parameter [95% CI] | PSMS-scoreb 20.53; -0.26 [-0.41 – -0.11]Prevalence FAST =7b 41%; -3.15 [-4.72 – -1.57]Pain medication use dichotomizedb  29%; -1.99 [-3.55 – -0.44] |
|  | NPI-NH total scoreb 20.64; -0.09 [-0.13 – -0.05] |
|  | **Baseline, T0** **(n = 78)** | **Follow-up after 6 months, T1 (n = 76)** | **Follow-up after 18 months, T2 (n = 66)** |
|  | **Estimated score [95% CI]** | **Estimated score [95% CI]** | **Estimated score [95% CI]** |
| **QoL-AD total score (13 – 52, primary outcome, only residents for whom a questionnaire is available for each time point)**n = 81 residents (missings possible because of covariates 1 \* 2; 2 \* 19; 3 \* 60)a **pg =** 0.30 **pt =** 0.44 **pgt =** 0.10 |
|  |  |  |  |
| Group A (DCM experienced) | 31.10 [27.44 – 34.76] | 32.44 [29.06 – 35.82] | 31.63 [28.02 – 35.24] |
| Group B (DCM) | 33.80 [30.54 – 37.07] | 28.29 [25.01 – 31.57] | 27.18 [23.83 – 30.53] |
| Group C (Regular QoL-rating) | 31.05 [27.67 – 34.43] | 31.72 [28.13 – 35.31] | 32.06 [28.51 – 35.60] |
| Covariates for adjustment: mean; regression parameter [95% CI] | PSMS-scoreb 20.57; -0.24 [-0.42 – -0.06]Prevalence FAST =7b 42%; -4.21 [-6.15 – -2.27]Pain medication use dichotomizedb 28%; -2.53 [-4.41 – -0.66]NPI-NH total scoreb 20.43; -0.07 [-0.11 – -0.02] |

aNo. of times per resident.

bSignificant; p < 0.05 for covariate.

CI-95% = Confidence interval 95%.

Estimated score = estimated least square means.

pg = main effect of the intervention.

pt = main effect of time (at three time points).

pgt = main effect of interaction between group and time.

QoL-AD = Quality of life Alzheimer’s disease scale.

NPI-NH = Neuropsychiatric Inventory – Nursing Home version.