



## **Appendix**

**This appendix was part of the submitted manuscript and has been peer reviewed.  
It is posted as supplied by the authors.**

Appendix to: Reed RL, Roeger L, Howard S, et al. A self-management support program for older Australians with multiple chronic conditions: a randomised controlled trial. *Med J Aust* 2018; 208: 69-74. doi:10.5694/mja17.00127.

Appendix: Secondary outcomes

|                         | Attention control<br>(N=127) |           |            | Est. between group<br>difference<br>(95% CI)* |                      | P    |
|-------------------------|------------------------------|-----------|------------|---|----------------------|------|
|                         |                              | mean ± se | Change     | mean ± se                                     | Change               |      |
| Fatigue†                |                              |           |            |   |                      |      |
| Baseline                | 5.91±0.18                    | 0.14      | 5.35±0.22  | 0.31  | 0.17 (-0.39 ; 0.74)  | 0.55 |
| Outcome                 | 6.06±0.20                    |           | 5.67±0.22  |   |                      |      |
| Pain‡                   |                              |           |            |   |                      |      |
| Baseline                | 4.66±0.24                    | -0.17     | 4.80±0.27  | 0.17  | 0.33 (-0.38 ; 1.04)  | 0.36 |
| Outcome                 | 4.50±0.26                    |           | 4.97±0.27  |   |                      |      |
| Health distress§        |                              |           |            |   |                      |      |
| Baseline                | 1.86±0.10                    | -0.06     | 1.85±0.11  | -0.01   | -0.05 (-0.18 ; 0.28) | 0.66 |
| Outcome                 | 1.80±0.10                    |           | 1.85±0.11  |   |                      |      |
| Energy / fatigue        |                              |           |            |   |                      |      |
| Baseline                | 1.89±0.07                    | -0.01     | 1.94±0.09  | 0.07  | 0.07 (-0.10 ; 0.25)  | 0.40 |
| Outcome                 | 1.88±0.07                    |           | 2.00±0.09  |   |                      |      |
| Depression¶             |                              |           |            |   |                      |      |
| Baseline                | 6.65±0.39                    | 0.02      | 5.91±0.38  | 0.40  | 0.38 (-0.62 ; 1.38)  | 0.46 |
| Outcome                 | 6.68±0.40                    |           | 6.31±0.39  |   |                      |      |
| Illness intrusiveness** |                              |           |            |   |                      |      |
| Baseline                | 36.24±1.19                   | -1.55     | 35.97±1.22 | -2.13   | -0.57 (-3.19 ; 2.04) | 0.67 |
| Outcome                 | 34.69±1.14                   |           | 33.84±1.24 |   |                      |      |
| Walk for exercise††     |                              |           |            |   |                      |      |
| Baseline                | 49.02±5.61                   | 2.95      | 52.91±6.01 | 11.81   | 8.86 (-7.43 ; 25.15) | 0.29 |
| Outcome                 | 51.97±5.47                   |           | 64.72±6.04 |   |                      |      |

|  |            |       |            |       |                      |      |
|--|------------|-------|------------|-------|----------------------|------|
| Medication adherence <sup>##</sup>     |            |       |            |       |                      |      |
| Baseline                               | 24.22±0.10 | 0.11  | 24.06±0.13 | 0.31  | 0.20 (-0.09 ; 0.50)  | 0.18 |
| Outcome                                | 24.33±0.10 |       | 24.37±0.08 |       |                      |      |
| HeiQ (domains) <sup>§§</sup>           |            |       |            |       |                      |      |
| Health directed activities             |            |       |            |       |                      |      |
| Baseline                               | 2.58±0.05  | 0.04  | 2.67±0.05  | 0.07  | 0.03 (-0.09 ; 0.15)  | 0.64 |
| Outcome                                | 2.63±0.05  |       | 2.74±0.04  |       |                      |      |
| Positive and active engagement in life |            |       |            |       |                      |      |
| Baseline                               | 2.94±0.03  | -0.04 | 3.06±0.04  | -0.07 | -0.03 (-0.12 ; 0.05) | 0.48 |
| Outcome                                | 2.91±0.03  |       | 3.00±0.04  |       |                      |      |
| Emotional distress                     |            |       |            |       |                      |      |
| Baseline                               | 2.69±0.04  | 0.01  | 2.72±0.05  | 0.03  | 0.02 (-0.07 ; 0.12)  | 0.61 |
| Outcome                                | 2.70±0.04  |       | 2.76±0.05  |       |                      |      |
| Self monitoring and insight            |            |       |            |       |                      |      |
| Baseline                               | 3.06±0.03  | -0.01 | 3.12±0.03  | -0.02 | 0.01 (-0.09 ; 0.07)  | 0.82 |
| Outcome                                | 3.05±0.02  |       | 3.10±0.03  |       |                      |      |
| Constructive attitudes and approaches  |            |       |            |       |                      |      |
| Baseline                               | 3.01±0.03  | 0.03  | 3.11±0.03  | 0.04  | 0.01 (-0.08 ; 0.10)  | 0.82 |
| Outcome                                | 3.04±0.03  |       | 3.15±0.03  |       |                      |      |
| Skill and technique acquisition        |            |       |            |       |                      |      |
| Baseline                               | 2.92±0.03  | 0.02  | 3.01±0.03  | -0.01 | -0.03 (-0.11 ; 0.05) | 0.46 |
| Outcome                                | 2.94±0.02  |       | 3.01±0.03  |       |                      |      |
| Social integration and support         |            |       |            |       |                      |      |
| Baseline                               | 2.92±0.04  | 0.01  | 3.04±0.04  | -0.01 | -0.03 (-0.12 ; 0.07) | 0.58 |
| Outcome                                | 2.93±0.04  |       | 3.02±0.03  |       |                      |      |
| Health service navigation              |            |       |            |       |                      |      |
| Baseline                               | 3.16±0.03  | -0.03 | 3.15±0.03  | 0.03  | 0.06 (-0.03 ; 0.15)  | 0.18 |
| Outcome                                | 3.13±0.03  |       | 3.18±0.03  |       |                      |      |
| Self-efficacy <sup>   </sup>           |            |       |            |       |                      |      |
| Baseline                               | 6.15±0.17  | 0.11  | 6.44±0.18  | 0.10  | 0.01 (-0.69 ; 0.67)  | 0.98 |
| Outcome                                | 6.26±0.17  |       | 6.55±0.19  |       |                      |      |

|                         |           |       |           |      |                     |      |
|-------------------------|-----------|-------|-----------|------|---------------------|------|
| Health care utilisation |           |       |           |      |                     |      |
| Mean GP visits¶¶        |           |       |           |      |                     |      |
| Baseline                | 4.75±0.27 | 0.07  | 4.89±0.34 | 0.44 | 0.07 (-0.09 ; 0.23) | 0.37 |
| Outcome                 | 4.82±0.28 |       | 5.33±0.33 |      |                     |      |
| Mean ED visits***       |           |       |           |      |                     |      |
| Baseline                | 0.31±0.07 | -0.07 | 0.24±0.05 | 0.11 | 0.64 (-0.02 ; 1.31) | 0.06 |
| Outcome                 | 0.24±0.05 |       | 0.35±0.05 |      |                     |      |
| Mean admissions†††      |           |       |           |      |                     |      |
| Baseline                | 0.26±0.05 | -0.01 | 0.27±0.05 | 0.06 | 0.22 (-0.45 ; 0.88) | 0.52 |
| Outcome                 | 0.25±0.05 |       | 0.32±0.05 |      |                     |      |

\* Coefficient (95% Confidence interval) from linear mixed model using the intent to treat group (N=254). Each model included the baseline value of the dependent variable, the intervention (CDSMS versus attention control), time as a categorical variable (baseline and six months) and an intervention\*time interaction. GP and participant were included as random intercepts.

† Fatigue was assessed on an 11 point visual numeric scale with higher numbers indicating more severe levels of fatigue.

‡ Pain was assessed on an 11 point visual numeric scale with higher numbers indicating more severe levels of pain.

§ Health distress was assessed from scores on four questions (rated on a 6 point scale) with higher scores indicating higher levels of health distress.

|| Energy/fatigue was assessed from scores on five questions (rated on a 6 point scale) with higher scores indicating less energy or more fatigue.

¶. Depression was assessed by the Personal Health Questionnaire Depression Scale (PHQ-9). This scale comprises 9 items which are rated on a 4 point scale. Higher scores indicate higher levels of distress.

\*\* Illness Intrusiveness was assessed from scores on 13 items related to the extent to which illness-treatment interfered (rated 1 'not very much' to 7 'very much'). Higher scores indicate more interference.

†† Walk for exercise was assessed in minutes per week using cut-points (15, 45, 120 and 180 minutes).

##. Medication adherence was assessed from scores on 5 items with higher scores indicating poorer levels of medication adherence.

§§ HeiQ comprises 40 items across 7 domains of patient education outcomes. Higher scores indicate improved capacity, except for Psychological distress, where a higher score is higher distress.

||| Self-efficacy for managing chronic disease was assessed from scores on six items rated 1 'Not at all confident' to 10 'Totally confident'. Higher scores indicate higher (better) self-efficacy.

¶¶ The number of GP visits in the previous six months. Estimated between group difference from a mixed Poisson regression model for count data.

\*\*\* The number of hospital emergency department presentations in the previous 6 months. Estimated between group difference from a mixed Poisson regression model for count data.

†† The number of hospital admissions in the previous 6 months. Estimated between group difference from a mixed Poisson regression model for count data.