

12 Month Data Collection & Analysis (Conducted by GreaterSport)

Changes in Physical Activity

Table 7.1 shows the frequencies of participants whose Short Active Lives Survey scores indicated that they were (a) inactive, (b) fairly inactive, or (c) active. The five columns report the total sample at baseline (N=1070), the sample that completed measures at baseline and 3 months (n=350), the sample that completed measures at baseline and 6 months (n=223), as well as the sample that completed measures at baseline and 12 months (n=74).

Table 7.1. Physical activity levels at baseline, 3m, 6m and 12m follow-up

	Total baseline (n=1070)	Matched baseline to 3m (n=350)	3 months (n=350)	Matched baseline to 6m (n=223)	6 months (n=223)	Matched baseline to 12m (n=74)	12 months (n=74)
Outcomes measures	n (%)						
Physical activity (no gardening)	639 (59.7)	251 (71.7)	44 (12.6)	161 (72.2)	35 (15.7)	44 (59.5)	12 (16.2)
Fairly Active	197 (18.4)	48 (13.7)	171 (48.9)	29 (13.0)	97 (43.5)	19 (25.7)	11 (14.9)
Active	234 (21.9)	51 (14.6)	135 (38.6)	33 (14.8)	91 (40.8)	11 (14.9)	51 (68.9)
Physical activity (gardening included)	592 (55.3)	243 (69.4)	41 (11.7)	156 (70.0)	31 (13.9)	41 (55.4)	12 (16.2)
Fairly active	195 (18.2)	50 (14.3)	168 (48.0)	30 (13.5)	93 (41.7)	19 (25.7)	11 (14.9)
Active	293 (26.4)	57 (16.3)	141 (40.3)	37 (16.6)	99 (44.4)	14 (18.9)	51 (68.9)

The majority of the 1070 participants that completed a questionnaire at baseline at the start of the new sessions scored as 'Inactive' (59.7%), with a slight decrease of 4.4% if gardening was included in physical activity estimates. This proportion had fallen to 16.2% of participants who completed a questionnaire at 12 months.

It was possible that this large fall in the proportions of participants who were inactive was due to those who were inactive dropping out of GM Active Ageing activities. To control for this, the remaining analyses included only those people who completed measures at baseline and at follow up, to allow changes in physical activity to be examined.

Of the 350 participants that provided valid data at baseline and at 3 months there was a decrease in the frequency of 'Inactive' participants from 71.7% to 12.6%. There was a commensurate increase in the number of 'Fairly Active' participants from 13.7% to 48.9%, and in 'Active' participants from a significant increase from 14.6% to 38.6% of participants scored as 'Active'. Thus, those participants who continued attending GM Active Ageing activities showed large changes in their activity levels.

A similar pattern was observed for the 223 participants that provided valid data at baseline and at 6 months. There was a decrease in the frequency of 'Inactive' participants from 72.2% to 15.7%. There was a commensurate increase in the number of 'Fairly Active' participants from 13.0% to 43.5%, and in 'Active' participants there was an increase from 14.8% to 40.8% of participants scored as 'Active'. Thus, those participants who continued attending GM Active Ageing activities maintained the large changes in their activity levels for at least 6 months.

A similar pattern was observed for the 74 participants that provided valid data at baseline and at 12 months. There was a decrease in the frequency of 'Inactive' participants from 59.5% to 16.2%. There was a commensurate decrease in the number of 'Fairly Active' participants from 25.7% to 14.9%, and in 'Active' participants there was an increase from 14.9% to 68.9% of participants scored as 'Active'. Thus, those participants who continued attending GM Active Ageing activities maintained the large changes in their activity levels for at least 12 months.

Wilcoxon signed-ranks tests were used to compare total minutes of moderate physical activity per week across time. These analyses confirm that the observed changes were statistically reliable (less than one in a thousand chance of observing these differences in physical activity levels due to chance alone). A statistically significant median increase from 0 minutes at baseline to 75 minutes and 3 month follow-up was observed when gardening was not included in the analysis ($z = 13.698$, $p < .001$) and from 0 to 90 minutes when gardening was included in the calculation ($z = 13.688$, $p < .001$). When comparing minutes of physical activity per week from baseline to 6 month follow-up, the median increase in minutes of physical activity per week increased from 0 minutes to 78 minutes when gardening was not included in the analysis ($z = 10.955$, $p < .001$) and from 0 to 90 minutes when gardening was included ($z = 11.272$, $p < .001$). When comparing minutes of physical activity per week from baseline to 12 month follow-up, the median increase in minutes of physical activity per week increased from 0 minutes to 360 minutes when gardening was not included in the analysis ($z = 6.326$, $p < .001$) and from 0 to 405 minutes when gardening was included ($z = 6.146$, $p < .001$).

The sensitivity analyses that included gardening produces slightly higher levels of physical activity at all time-points, but the results of analyses that included gardening as a form of physical activity were virtually unchanged from those that excluded gardening.

Changes in other measures

Table 7.2. Mental and social wellbeing at baseline, 3m, 6m and 12m follow-up

	Total baseline (n=1070)	Matched baseline to 3m (n=350)	3 months (n=350)	Matched baseline to 6m (n=223)	6 months (n=223)	Matched baseline to 12m (n=74)	12 months (n=74)
Outcomes measures	Mean (SD)						
Subjective Wellbeing							
Life satisfaction	7.18 (2.03)	7.08 (1.95)	7.24 (1.82)	7.35 (1.89)	7.09 (2.07)	7.22 (1.79)	6.58 (2.31)
Happiness	7.14 (2.15)	7.10 (2.06)	7.28 (1.91)	7.41 (1.97)	7.06 (1.99)	7.08 (1.96)	6.63 (2.11)
Anxiety	2.52 (2.86)	2.17 (2.89)	2.36 (2.70)	2.07 (2.96)	2.65 (2.82)	2.6 (2.636)	3.61 (2.63)

Worthwhile life activities	7.10 (2.16)	6.84 (2.08)	7.13 (2.00)	7.1 (2.05)	6.98 (2.36)	7.16 (2.15)	6.11 (2.88)
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Individual Development

Goal setting	3.73 (0.78)	3.78 (0.76)	3.9 (0.61)	3.82 (0.74)	3.95 (0.64)	3.67 (0.78)	3.75 (0.73)
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Social and community development

Trust in local people	3.49 (0.75)	3.64 (0.74)	3.76 (0.65)	3.71 (0.63)	3.71 (0.67)	3.39 (0.58)	3.72 (0.68)
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In general, participants reported good levels of subjective wellbeing, with mean scores on life satisfaction, happiness and worthwhile life activities all being consistently above 7 on a scale of 0 to 10, and mean anxiety being consistently below 3 on a scale of 0 to 10, the exception being 12 months.

There was some evidence of changes in these measures over time. Life satisfaction, happiness and worthwhile life activities all increased from baseline to 3 months (all $p < 0.001$), with increases in all three being maintained at 6 months (all $p < 0.001$). These changes were not maintained at 12 months.

There was a positive change in the item assessing individual development (“I can achieve most of the goals I set myself”) at 3 months ($p < 0.001$) that was maintained at 6 months ($p < 0.001$) and 12 months ($p=0.131$). There was a positive change in the item assessing social and community development “To what extent do you agree or disagree that most people in your local area can be trusted?” at 3 months ($p < 0.001$) that was not maintained at six months ($p = 0.318$) and 12 months (0.914).