What happens to weight in people randomised to minimal intervention control groups in weight loss trials?

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Uncontrolled evaluations of programmes

Long-term cost-effectiveness of weight management in primary care

- Obese population
- Weight re-gained over 2 yr
- Counterweight Intervention
- Weight regained at rate of obese population

‘Base case’

‘Best case’

Diagram showing weight change over years in different scenarios.
The effect of interventions

Figure Legend:
Error bars indicate SEM.
Inclusion and exclusion

- **Included,**
  - **Population**
    - adults
    - BMI of $\geq 25 \text{ kg/m}^2$ (or a BMI of $\geq 23 \text{ kg/m}^2$ in Asian populations).
  - **Interventions**
    - involve multiple contacts with the
    - multi-component weight management programmes.
  - **Studies**
    - Follow-up for at least a year

- **Excluded**
  - pregnant women,
  - people with eating disorders
  - Specific treatment for a medical condition
Control group intensity

- No intervention at all; self-help material only or seeing someone more than once for discussion of something other than weight management;
- Single weight management session +/- self-help material;
- Seeing a professional more than once for weight management, +/- self-help material.

- Number of weigh-ins
Data synthesis and presentation

There are many ways to treat participants without follow-up data.

- Some studies ignored these participants (completer data only), whereas others included them in the analysis using a variety of methods of imputation.
- The method used can have a big impact on results.
- So that we could compare like with like, for each study, we recalculated the weight change data reported using the baseline observation carried forward approach.
30 studies included

5,953 people in control arms
Control intensity as a linear trend

- -0.53kg (95% CI -0.96 to -0.09)
- -0.28kg; (95% CI -0.73 to 0.16)
  - Adjusted for percentage women
  - And number of weigh-ins
Single session of advice versus no advice

-0.25kg; (95%CI -0.83 to 0.32)
-0.35kg; (95%CI -0.94 to 0.23)
  - Adjusted for percentage women
  - And number of weigh-ins
Repeated advice versus no intervention

-1.19kg; 95% CI -2.32 to -0.06
-0.58kg; 95% CI -2.03 to 0.87

- Adjusted for percentage women
- And number of weigh-ins
Number of weigh-ins

- Median=4 (range 2-6)
- Every extra weigh-in -0.42kg; (95%CI -0.81 to -0.03)
  - Adjusted for gender -0.43kg; (95%CI -0.79 to -0.07)
  - In addition adjusted for intensity of intervention (-0.32kg; 95%CI -0.71 to 0.07)
Long-term cost-effectiveness of weight management in primary care
Effectiveness of primary care treatment

1.9.5 General practice

<table>
<thead>
<tr>
<th>Study</th>
<th>Weight</th>
<th>Mean Difference</th>
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<tbody>
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<td>12.6%</td>
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<td>0.30 [1.55, 2.15]</td>
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<td>4.5</td>
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<td>5.1</td>
<td>510.7</td>
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<td>0.40 [1.36, 2.16]</td>
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<td>Nanchahal 2011</td>
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<td>4.3</td>
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<td>55.5%</td>
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<td>Wadden 2011</td>
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<td>Subtotal (95% CI)</td>
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<td>-0.22 [-0.87, 0.44]</td>
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Heterogeneity: Chi² = 1.35, df = 3 (P = 0.72); I² = 0%
Test for overall effect: Z = 0.64 (P = 0.52)
Conclusions

- Produced standards for what people who would have joined a weight loss programme might achieve on their own
  - In most cases the population shows mean weight loss
- Perhaps
  - Repeated advice may be more successful than nothing
  - Repeated weighing may induce greater weight loss
Thanks for listening

For questions or a copy of the slides contact

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