

Successful behaviour change in weight management- what works?

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A conceptual review of factors associated with weight loss maintenance (Elfhag & Rossner, 2005) found the following to be linked to success at one year;

- An internal motivation to lose weight
- **More initial weight loss**
- **Reaching a self-determined target weight**
- Having a physically active lifestyle
- Having a regular and healthy meal pattern, including breakfast
- Social support
- Control over over-eating
- Self-monitoring of behaviours
- Better coping strategies and ability to handle life stresses
- Self-efficacy
- Autonomy
- Assuming responsibility in life
- Overall more psychological strength and stability

The effect of target setting on weight loss and long term weight management in a community based sample of adults with obesity

AVERY A, LANGLEY-EVANS SC, HARRINGTON M and SWIFT JA, 2016. Setting targets leads to greater long-term weight losses and 'unrealistic' targets increase the effect in a large community-based commercial weight management group. *Journal of Human Nutrition and Dietetics* : 29(6), 687-696

Background

- Setting targets (goals) is important in any lifestyle modification programme.
- Weight loss targets are important as they regulate behaviour by affecting attention, decisions, effort, and task persistence (Locke & Latham, 1990).
- It is normal practice to encourage 'realistic' weight loss and yet patients with obesity may have much higher personal targets.

- Targets set by clients are often much higher than those achieved (*Fabricatore et al., 2008*) which has led to high targets being considered ‘unrealistic’ and a cause for concern.
- The ‘false hope’ syndrome/hypothesis (*Polivy & Herman 2002*) suggests that very ambitious targets relating to weight loss are less likely to be met, and that the subsequent failure will lead to disappointment, dissatisfaction, decreased effort and relapse.

- However, evidence demonstrates that non-attainment of targets does not necessarily stop successful weight losers from maintaining their weight loss (*Fabricatore et al., 2007; Gorin et al., 2007*).
- Many individuals may be more satisfied by smaller weight losses than they expected. Weight loss targets may become less important in the long-term.
- A meta-analysis concluded that there was no empirical evidence that setting realistic targets led to greater weight loss, or that unrealistic targets had any negative impact on weight loss (*Durant et al., 2013*)

- Others have gone further and suggested that higher targets may be motivational to some participants 'who wish to avoid the feeling of disappointment' (*Fabricatore et al., 2007*).
- A review looking at the effect of expectations on weight loss outcomes concluded that higher targets may lead to higher weight loss at 6-12 months (*Crawford & Glover, 2012*).
- Casazza et al, 2013 cite setting realistic targets to be one of the 7 myths of current obesity treatment with insufficient evidence to support this practice.

- Slimming World (SW) is a UK based commercial weight management programme with 19,000 weekly community groups.
- Members are strongly encouraged to set their own weight loss target, although it is not compulsory and the health benefits of losing 10% initial weight are emphasised.
- Those who choose to set a personal target may choose to set interim and final weight targets, which can be fluid, to suit their own requirements.

Study Aim

- The aim was to consider whether target setting predicts weight loss at 12 months in group members with an initial BMI $\geq 30\text{kg/m}^2$.
- Hypothesis 1; setting weight loss targets leads to a greater amount of weight loss in the long-term and significantly more members reaching $\geq 10\%$ weight loss.
- Hypothesis 2; for those who do set targets, larger and a greater number of targets, leads to greater weight loss over 12 months.

Methods

- UK data on new members aged ≥ 18 years and not pregnant who joined between January 2012 and March 2012 inclusive were extracted from the SW electronic database
- Data were collected for all members up to either their leaving the group or, for members still attending, up to September 2013.
- **Analytical Group**; members with weight data available at 12 months after joining, $n = 35,380$ and where $BMI \geq 30$, **$n = 24,457$**

Results ; Characteristics of cohort- comparing target setters and non-target setters

All data are shown as mean \pm standard deviation. § indicates a significant effect of setting target (P<0.001). *, **, *** show significant effect of sex (P<0.05, <0.01, <0.001). Initial weight, initial BMI, weight at 12 months and BMI at 12 months were influenced by significant interactions of sex and target setting (P<0.001)

	No target set		Targets set	
	Men	Women	Men	Women
n	474	7310	1383	15280
Initial BMI (kg/m²)	40.5 \pm 7.1	38.7 \pm 6.3 ^{***}	37.2 \pm 7.7 [§]	36.3 \pm 5.4 ^{***§}
12 month BMI	36.0 \pm 5.6	34.6 \pm 5.6 ^{***}	31.5 \pm 5.0 [§]	31.0 \pm 5.1 ^{***§}
Weight loss (% initial wt)	10.5 \pm 7.4	10.0 \pm 6.7 [*]	14.8 \pm 8.6 [§]	14.2 \pm 7.8 ^{*§}
Age	48.4 \pm 13.2	47.5 \pm 13.6	48.9 \pm 13.3	47.5 \pm 13.8 ^{**}

	All with target set	Target 0-10.41% loss (Q1)	Target 10.42 - 16.35% (Q2)	Target 16.36-20.86% (Q3)	Target 20.87-26.48% (Q4)	Target >26.48% (Q5)
n	16 663	3 333	3 329	3 334	3 318	3 330
Age (years)	47.6 ± 13.8	48.8 ± 13.8	50.8 ± 13.9	48.7 ± 13.7	46.6 ± 13.4	43.0 ± 12.9***
Initial BMI (kg/m ²)	36.3 ± 5.5 [§]	36.9 ± 6.0	34.9 ± 4.9 [×]	34.8 ± 4.7 [×]	35.7 ± 4.8	39.4 ± 5.5***
weight loss at 12 months (%)	14.3 ± 7.9 [§]	11.4 ± 7.6 [×]	11.1 ± 6.0 [×]	13.9 ± 6.1	16.1 ± 7.0	19.0 ± 9.4***
BMI at 12 months (kg/m ²)	31.0 ± 5.1 [§]	32.6 ± 5.5	30.9 ± 4.6	29.9 ± 4.5	29.9 ± 4.8	31.8 ± 5.6***
BMI reduction at 12mths (kg/m ²)	5.3 ± 3.2 [§]	4.3 ± 3.2 [×]	4.0 ± 2.3 [×]	4.9 ± 2.3	5.8 ± 2.7	7.6 ± 4.0 ***

Those who set a target were 10 times more likely to be 10% lighter at 12 months.

