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## Investigation of weight-loss expectations and weight control in obesity

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The aim of the present abstract is to report on obese individuals' weight-loss goals and factors influencing these goals. Current guidelines recommend a target weight loss of 5–10% of original weight for successful weight control<sup>(1)</sup>. However, research has shown that this level is a great underestimation of what obese individuals consider as successful or acceptable weight loss<sup>(2)</sup>. Unmet goals or expectations in weight control can lead to negative behaviours and psychological profiles, and ultimately abandonment of weight-control efforts.

Data reported here were collected as part of the EU 6th Framework project DiOGenes, a dietary intervention trial investigating the effectiveness of high- and low-GI and -protein diets on weight maintenance, following a rapid weight-loss period, in an obese cohort. Participants were asked to indicate their target weight in kilograms in a questionnaire completed at the screening phase. A target weight-loss score was then calculated by subtracting self-reported target weight from baseline weight.

Target weight-loss scores ranged from  $+11 \, \text{kg}$  to  $-88.6 \, \text{kg}$  and were highly correlated with baseline weight (r-0.73, P<0.001), weight loss during the rapid weight-loss period (r~0.40, P<0.001) and during the weight-maintenance phase of the study (r~0.15, P=0.001). On average these target weights corresponded to a 25% weight loss or a mean weight loss of 25 kg, with only 3% of the sample setting a target weight loss of  $\leq 10\%$ . Weight loss necessary to reach the target weight was largely in excess of actual weight change during the rapid weight-loss period  $(-11 \, \text{kg } v. -25 \, \text{kg}; P<0.001)$  and overall weight change accounting for initial weight loss  $(0.05 \, \text{kg } v. -25 \, \text{kg}; P<0.001)$ . Differences in target weight-loss scores for gender and age were shown to be significant. Women had a significantly higher score than men (P<0.01) and age was shown to be highly correlated (r~0.11, P=0.01) with target weight-loss score. Regression analysis investigated the influence of gender, age, baseline weight, weight at age 20 years and weight at age 30 years on target weight-loss score. All variables were shown to significantly predict target weight-loss score, with the model explaining 72% variance (P<0.001).

Target weight-loss scores were significantly negatively associated with baseline weight and positively associated with weight change, indicating that individuals with greater weight loss had higher target weight-loss scores. Women and older participants had higher weight-loss expectations and target weight-loss scores were significantly predicted by previous weight history and baseline weight. Overall, this analysis reveals high weight-loss expectations in this cohort and after the intervention period target weight-loss scores were not achieved. Encouraging acceptance of realistic target weight losses in obesity management may lead to more successful treatment of obesity.

- 1. National Institute for Health & Clinical Excellence (2006). Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43.
- 2. Elfhag K & Rossner S (2005) Obesity Rev 6, 67-85.