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Ain't no mountain high enough? Setting high weight loss goals predict effort and short-term weight loss

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Abstract

Although psychological theories outline that it might be beneficial to set more challenging goals, people attempting to lose weight are generally recommended to set modest weight loss goals. The present study explores whether the amount of weight loss individuals strive for is associated with more positive psychological and behavioral outcomes. Hereto, 447 overweight and obese participants trying to lose weight completed two questionnaires with a 2-month interval. Many participants set goals that could be considered unrealistically high. However, higher weight loss goals did not predict dissatisfaction but predicted more effort in the weight loss attempt, as well as more self-reported short-term weight loss when baseline commitment and motivation were controlled for.

Keywords

commitment, effort, goal setting, motivation, nonclinical sample, self-efficacy, weight loss

Introduction

Overweight and obesity are nowadays highly prevalent, while excess body weight poses serious health risks (e.g. Mokdad et al., 2003; Ogden et al., 2006). Within the overweight and obese population, weight loss can produce significant health improvements. Weight reductions of just 5%–10% result in significantly fewer health risks associated with excess body weight (Vidal, 2002). Taking into account that the best available obesity treatments produce weight losses between 8% and 10% (Yanovski and Yanovski, 2002), individuals are recommended to set their weight loss goals accordingly (i.e. between 5% and 10%) (National Institutes of Health, 1998).

However, evidence for this recommendation seems mixed. Some studies find that striving for more weight loss increased the likelihood of

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cessation of weight loss treatment (Dalle Grave et al., 2005) and may even result in people regaining more weight after treatment (Byrne et al., 2004). Other studies found no significant relation between weight goals and weight loss (Ames et al., 2005; Jeffery et al., 1998), weight regain (Ames et al., 2005; Gorin et al., 2007), or psychological well-being (Jeffery et al., 1998). Finally, some studies revealed that people with more ambitious weight loss goals achieved more weight loss (Bonato and Boland, 1987; Fabricatore et al., 2007; Linde et al., 2004, 2005). In sum, there is no clear evidence that setting high weight loss goals has adverse effects in terms of weight loss, weight loss maintenance, or psychological well-being. Nevertheless, individuals attempting to lose weight are generally recommended to lower their weight loss expectations and set modest weight loss goals (National Institutes of Health, 1998).

This article aims to contribute to the insight into the relation between weight goal setting and weight loss in two ways: first, by looking at nonclinical samples and, second, by explicitly considering the relation between setting weight loss goals and intermediate psychological and behavioral outcomes that may account for the mixed findings on the effects of weight goal setting.

It is commonly observed that obese patients seeking treatment set weight goals that exceed the recommendations by far. Various studies indicated that obese patients wanted to lose more than 30% of their body weight (e.g. Dalle Grave et al., 2005; Foster et al., 1997, 2001) and considered a weight loss of 10% to be disappointing (Dutton et al., 2010; Masheb and Grilo, 2002). However, only few studies examined the weight goals set by nonclinical samples of obese or overweight individuals (Anderson et al., 2003; Fabricatore et al., 2008; Provencher et al., 2007). As a result, insight into the antecedents and consequences of weight goal setting are lacking for a substantial subset of the population, considering that approximately one-third of adults is trying to lose weight, while more than 95% of these individuals try to do so without entering a weight loss program (Fabricatore et al., 2008; Kruger et al., 2004). Also, in nonclinical samples, many individuals appear to set weight loss goals that exceed recommendations (Anderson et al., 2003; Fabricatore et al., 2008; Provencher et al., 2007).

Apart from their focus on clinical samples, previous studies on weight goal setting all focus on actual weight outcomes but do not focus on intermediate psychological or behavioral outcomes. This is important because studying the impact of weight goals on these intermediate factors may help to understand why particular goals do or do not lead to goal achievement. Generally, weight goals that exceed recommendations are believed to be detrimental for weight loss (e.g. Foster et al., 2004; Gorin et al., 2007; National Institutes of Health, 1998). It is assumed that individuals setting higher weight loss goals are more likely to become dissatisfied with their actual progress, which may impede efforts at weight maintenance (Foster et al., 2004; Gorin et al., 2007). Goals serve as a reference point for satisfaction versus dissatisfaction (Mento et al., 1992). People with high goals set their mark for satisfaction at a higher level, which means they are dissatisfied with less progress. More specifically, a weight loss of 5 kg will infer greater dissatisfaction with a person who had the goal to lose 10 kg compared to a person who aimed for a weight loss of 6 kg. As suggested by Locke and Latham (2002), individuals with higher goals are motivated to work harder toward their goals compared to those with easy goals to avoid feelings of dissatisfaction.

However, based on psychological theory, it can also be hypothesized that challenging weight goals may have beneficial effects. For instance, goal setting theory (Latham and Locke, 1991; Locke and Latham, 2002) suggests that goals have an energizing function, resulting in greater effort and persistence directed toward more challenging goals. Indeed, studies on goal setting theory demonstrated that a positive, linear relation was found between goals, effort, and performance. The highest or most difficult goals

consistently produced greater effort and performance (Locke and Latham, 1990), especially when commitment to the goals is strong (Klein et al., 1999). Moreover, when goals are set, they direct attention and effort toward goal-relevant activities and away from goal-irrelevant ones (Locke and Latham, 2002). Desirable (i.e. more challenging but less attainable goals) goals have been shown to result in more goal commitment than feasible (i.e. less challenging but more attainable) goals for various health behaviors, including eating healthily and exercising (De Ridder et al., submitted for publication).

The main objective of the present study is to explore whether the amount of weight loss individuals strive for predicts positive outcomes. It is hypothesized that higher weight loss goals (i.e. striving for more weight loss) predict higher levels of effort and more short-term weight loss. We will also investigate the conflicting assumption that higher weight loss goals are associated with higher levels of dissatisfaction with the weight loss attempt.

We additionally aim to gain insight into the weight loss goals and its correlates set by a nonclinical sample of overweight and obese adults, as currently little is known about weight goals in nonclinical samples. More specifically, we explore differences in weight goals by background characteristics (age, gender, educational level, ethnicity, and body mass index (BMI)) and by psychological characteristics (self-efficacy, self-concordance, and commitment to the weight loss attempt). This serves two purposes. On the one hand, it allows for the identification of target groups of people who are likely to set high weight loss goals. On the other hand, it allows for the identification of variables that may affect the outcome of goal striving. Various goal theories (e.g. goal setting theory, self-determination theory, and Carver and Scheier's self-regulation theory) assume that feeling confident about one's skills and being intrinsically motivated and committed to a goal are necessary ingredients for effective goal setting and goal pursuit (Carver and Scheier, 1998; Locke and Latham, 1990; Ryan and Deci, 2000). We not only expect that individuals who are confident that they can achieve the target weight (i.e. high self-efficacy), who are intrinsically motivated to lose weight (i.e. high in self-concordance), or who are strongly committed to lose weight will strive for more weight loss but also, and most important to our hypothesis, that weight loss goals will have an independent impact on effort and performance even when controlling for these other motivational characteristics.

Methods

Participants, design, and procedure

A random sample of 3305 people over 18 years of age from a Dutch Internet-based research panel was invited through email to participate in a study on new years' resolutions (Nelissen et al., 2011). By clicking on a link provided in the email, they entered an introductory screen and were asked to indicate whether or not they had any new year's resolutions and if so, which resolutions. They could select multiple options from a list of six: quit smoking, find new job, spend more time with friends, lose weight, save money, or other. Only participants who indicated that they wanted to lose weight ($n = 1035$; 31%) were linked to the invitation to participate in the present study. A link to the first questionnaire (T1) was included in the invitation, and participants indicated their willingness to participate by completing the first questionnaire. Participants who completed the first questionnaire received a link to the second questionnaire 2 months after baseline (T2). A total number of 725 people (70%) completed the questionnaire at T1. At T1, 612 were overweight or obese (84.4%). Normal-weight individuals were excluded from further analyses. Of the overweight participants, 447 (73.0%) participants also completed the second questionnaire.

Measures

Individuals were asked about their current weight at baseline and follow-up. Height was

reported at baseline. *BMI* was calculated at both time points by dividing the weight in kilograms by the square length in meters. *Self-reported weight change* was computed by subtracting BMI at baseline from BMI at follow-up.

Weight goals were assessed at baseline. Individuals were asked to indicate their target weight (in kilogram) for the present weight loss attempt. Weight goals were calculated as percentages (current weight − target weight/current weight).

Self-concordance reflects why people hold particular goals. Self-concordance can be defined as the extent to which a goal reflects personal interest and intrinsic motivations versus something one feels compelled to do (Sheldon et al., 2004). Self-concordance was assessed at baseline (cf. Sheldon and Kasser, 1995, 1998). Individuals were asked to rate how much they pursued their weight goal for each of the four types of reasons that map onto a continuum of self-determination ranging from highly controlled to highly autonomous. The four types of reasons were (a) external (e.g. "I want to lose weight because others expect me to"), (b) introjected (e.g. "I want to lose weight because I would feel ashamed or guilty if I didn't"), (c) identified (e.g. "I want to lose weight because I personally feel a healthy weight is important"), and (d) intrinsic (e.g. "I want to lose weight because I am interested to learn about my progress"). Each type of reason was assessed with two items on a 9-point Likert scale ranging from 1 (*not at all for this reason*) to 9 (*completely because of this reason*). Internal consistency for the eight items was good (Cronbach's α = .81). A self-concordance index was computed by subtracting the sum of the external and introjected ratings from the sum of the intrinsic and identified ratings. Higher ratings on this final measure reflected higher levels of self-concordance of the participant's weight goal.

Self-efficacy reflects the participants' confidence in their ability to achieve the target weight. Self-efficacy was assessed at baseline (cf. Conner and Sparks, 2005) through three items: "Do you think you will succeed in achieving your target weight (−3 = definitely not; +3 = definitely yes)?" "Do you think it is difficult or easy to attain your target weight (−3 = very difficult; +3 = very easy)?" and "Do you feel confident that you will attain your target weight (−3 = not at all confident; +3 = very confident)?" Internal consistency was good (Cronbach's α = .78), and a mean score was computed.

Goal commitment was assessed at baseline with the validated 5-item Hollenbeck, Williams, and Klein (HWK) scale (Hollenbeck et al., 1989; Klein et al., 2001). The scale is a generic goal commitment scale, including the following items: "I am strongly committed to pursue my goal" and "I don't care if I achieve my goal or not" (reversed item). We have added the word "weight" preceding the word "goal," to make sure that it was clear to participants that the items referred to their weight goal. Answering options ranged from *strongly disagree* (−2) to *strongly agree* (+2). Cronbach's α was .57, which is somewhat lower than the α of .74 reported by Klein et al. (2001). A mean score was computed.

Effort was assessed at follow-up (cf. Louro et al., 2007) through three items: "How much effort do you invest in achieving your target weight?" "To what extent do you do your best to attain your target weight?" and "How much energy do you spend achieving your target weight?" (1 = *not at all*; 7 = *very much*). Internal consistency was good (Cronbach's α = .90), and a mean score was computed.

Dissatisfaction was assessed at follow-up with one item, asking individuals to indicate to what extent (1 = *not at all*; 11 = *very much*) they felt dissatisfied with the progress they made in attaining their target weight.

Analyses

Analyses were conducted with the 447 overweight and obese individuals who completed both questionnaires. First, demographic characteristics and baseline psychological characteristics were described, as well as weight goals.

Bivariate correlations between the study's main variables were computed. Second, to investigate what demographic and psychological factors determine the weight loss goals that people select for their weight loss attempt, multiple regression analyses were conducted with the target weight (as percentage of initial weight) as dependent variable. Gender, age, ethnicity, level of education, BMI, goal commitment, self-concordance, and self-efficacy were entered simultaneously as independent variables. Finally, to investigate whether the amount of weight loss individuals strive for independently predicts positive or negative outcomes, three multiple regression analyses were conducted with effort, dissatisfaction, and self-reported weight change at follow-up as dependent variables and target weight as independent variable. In these analyses, age, gender, BMI, baseline goal commitment, and self-concordance were entered as independent variables, because these variables were related to the selected weight goal.

Results

Participants and weight goals

Mean age of the participants was 49.00 years (standard deviation (SD) = 12.77 years, range = 19–77 years). The sample consisted of 54.8% females, and 92.6% of the respondents were of Dutch origin. Of the participants, 34.4% had a low education (completed no education, primary school, secondary school, or lowest level of high school or lower vocational training), 40.4% had intermediate education (completed intermediate or high level high school, or medium level vocational training), and 25.5% had a high level of education (completed higher vocational training, college, or university training). Mean BMI was 30.53 (SD = 4.51, range = 25.04–50.84), and 43.2% was classified as obese (BMI ≥ 30).

The target BMI averaged 26.17 (SD = 2.81), which reflects an average weight loss of 13.6% (SD = 7.08) of participants' initial weight. Of the total sample, 62.6% set a weight loss goal that exceeded the recommended 5%–10% range of the initial weight that is deemed to mark the cutoff point for successful weight loss attempts. During the course of the study, participants reported to have lost an average 1.90% of their weight (SD = 4.36). A paired *t*-test showed that weight goals did not differ between those who did and those who did not complete the study ($t(610) = 1.06$, $p = .29$). Table 1 shows the descriptive information and bivariate correlations between the study's main variables at baseline and follow-up (weight goals, self-efficacy, self-concordance, commitment, effort, dissatisfaction, and weight loss).

Cross-sectional correlates of weight goals

Multiple linear regression analyses indicated that gender ($\beta = .11$, $p = .002$), age ($\beta = -.14$, $p < .001$), BMI ($\beta = .68$, $p < .001$), goal commitment

Table 1. Means, standard deviations, and bivariate correlations between study's main variables.

	1	2	3	4	5	6	7
Weight goal (1)	—	.11*	−.05	−.19***	.21***	.16**	−.23***
Commitment at T0 (2)		—	.19***	.23***	.33***	.05	−.08
Self-concordance at T0 (3)			—	.24***	.17***	−.12*	−.07
Self-efficacy at T0 (4)				—	.05	−.36***	−.09*
Effort at T1 (5)					—	−.01	−.13**
Dissatisfaction at T1 (6)						—	.12**
Self-reported weight change between T0 and T1 (7)							—
Mean	13.59	3.63	12.48	.13	.31	5.04	−.60
Standard deviation	7.08	.51	8.35	1.12	1.37	2.92	1.54

* $p < .05$; ** $p < .01$; *** $p < .001$.

Table 2. Predictors of effort, dissatisfaction, and weight loss at 2-month follow-up.

Baseline variable	Effort		Dissatisfaction		Self-reported weight change	
	β	p	β	p	β	p
Age[a]	.14	.002	−.13	.006	.03	.48
Gender[b]	.05	.28	.09	.05	.12	.01
BMI	.09	.16	.13	.04	−.17	.01
Goal commitment	.30	<.001	.05	.28	−.05	.32
Self-concordance	.12	.007	−.09	.07	−.12	.01
Weight goal	.14	.03	.02	.75	−.14	.03
	Adjusted R^2 = .17 $F(6,444)$ = 16.71, p < .001		Adjusted R^2 = .06 $F(6,444)$ = 5.51, p < .001		Adjusted R^2 = .08 $F(6,442)$ = 7.27, p < .001	

BMI: body mass index.
[a]Age, gender, BMI, goal commitment, and self-concordance are included in the regression analyses because these variables are significantly correlated with the selected weight goal.
[b]Gender: 0 = male; 1 = female.

(β = .09, p = .01), and self-concordance (β = .08, p = .04) at baseline were significantly associated with the baseline weight goal, whereas ethnicity, level of education, and self-efficacy at baseline were not (βs < .04, ps > .37). Higher weight loss goals were set by women, younger participants, and participants with a higher BMI, more committed respondents, and respondents with more self-concordant motivations to lose weight.

Longitudinal association between weight goal and weight loss effort

Multiple linear regression analyses showed that age, commitment, self-concordance, and weight goals at T0, but not gender and BMI at T0, predicted weight loss effort at T1. Individuals, who strive for more weight loss at baseline, put more effort in striving for their goal at follow-up (Table 2).

Longitudinal association between weight goal and dissatisfaction

Multiple linear regression analyses showed that age, gender, BMI, and self-concordance at T0, but not commitment and weight goals at T0, significantly predicted dissatisfaction at T1. Females, younger individuals, individuals with a higher initial BMI, and individuals with less self-concordant motivations were more likely to be dissatisfied with the progress on their weight loss attempt (Table 2). Individuals, who strive for more weight loss at baseline, did not display more dissatisfaction with the outcomes at follow-up.

Longitudinal association between weight goal and weight loss

Multiple linear regression analyses showed that gender, BMI, self-concordance, and weight goal at baseline, but not age and commitment at baseline, significantly predicted self-reported weight change at follow-up. Individuals, who strive for more weight loss at baseline, reported to have lost more weight between baseline and follow-up 2 months later (Table 2).

Discussion

The present study suggests that a majority of individuals in a nonclinical sample select weight goals exceeding the recommended target of 5%–10% of initial body weight (National Institutes of Health, 1998). More importantly,

the present study also showed that in spite of these recommendations, striving for more weight loss (i.e. setting higher weight loss goals) may not be detrimental in terms of goal attainment, at least not on the short term. This is an important finding, since controversy exists about whether high weight loss goals are advisable. The present findings add to the growing body of research that challenges the view that individuals should be recommended to lower their weight loss goals (e.g. Ames et al., 2005; Jeffery et al., 1998; Linde et al., 2004).

The present study extends most previous research in three important ways: First, by gaining insight into the weight loss goals set by a nonclinical sample of overweight and obese adults and the factors that determine the weight loss goals in such a population. The selected target weight goals in the present study (13.6% of initial weight) are comparable to those found in other nonclinical samples but are more moderate than those found in clinical samples (Anderson et al., 2003; Fabricatore et al., 2008). Still, the selected weight goals on average double the recommended amount of weight loss (5%–10% of initial weight), and about two-third of the sample set goals that exceeded the upper limit of 10%. However, the present findings suggest that not providing any moderating guidelines on setting weight loss goals may result in aspiration levels that fall well within the range of those that yield positive outcomes for goal attainment in nonclinical samples.

Second, the findings add to current knowledge by examining the association between goal setting and goal striving, independent of that of other motivational factors, such as self-efficacy, self-concordance, and commitment. These psychological factors are not often examined in relation to the weight goals people select (for a notable exception, see Masheb and Grilo, 2002). Given that self-concordance and goal commitment were predictors of follow-up effort in the present study and have been shown to be important for successful weight loss (e.g. Williams et al., 1996), it appears important to explore these factors in conjunction with the goals people set for their weight loss attempt. Remarkably, self-efficacy was not significantly associated with weight loss goals in the multiple regression analysis. Moreover, a negative bivariate correlation was found between self-efficacy and weight loss goals. It might be that individuals who strive for more weight loss experience doubts about their abilities to achieve the target weight, unless they are very committed and motivated to reach the goal. This could be subject to further inquiry.

Third, the present research extended previous work by exploring the psychological consequences of weight loss goals. The amount of weight loss individuals strive for was not related to dissatisfaction as is often assumed (e.g. Foster et al., 2004), but may lead to more effort, as is predicted by goal setting theory (e.g. Locke and Latham, 2002). This positive association between weight goals and effort in goal striving may explain the positive relation between weight goals and weight loss.

Obviously, these conclusions are drawn while bearing in mind some inevitable limitations to the design of the present study. First, the follow-up of 2 months is short, especially in relation to weight loss and ideally we would have included an extra assessment at 12- or 24-month follow-up. However, attempting to lose weight is complex, and people may experience many fluctuations in their motivation, commitment, and effort during the weight loss attempt. Hence, a short follow-up may be appropriate to gain more understanding into these intermediate psychological outcomes of weight goal setting. Nevertheless, we can only conclude that striving for more weight loss is associated with more effort and self-reported weight change on the short term.

Second, weight was self-reported and not objectively assessed. Even though this could be considered inherent to a study in a larger nonclinical sample, it might be that participants have under-reported their weight or have overestimated the amount of weight they had lost between baseline and follow-up. Future studies should aim to assess weight objectively.

Finally, the present study was correlational, precluding conclusions about causal mechanisms. Although the longitudinal design allows for some inference about the temporal order of the observed associations (i.e. excludes reverse causality of the association between goal setting and goal effort and attainment), future experimental research should evaluate how weight loss goals, commitment, motivation, effort, and weight loss are causally related. Furthermore, future long-term studies should point out whether or not lowering weight loss expectations is advisable at a later stage in the weight loss attempt.

Notwithstanding these limitations, these findings may bear some important practical implications. The current findings provide little support for encouraging people to lower their weight loss goals. Based on previous studies, it might even be assumed that recommending lower weight loss goals might have adverse effects on commitment and effort to the weight loss attempt. According to the model of multiple-goal pursuit (Louro et al., 2007), at any time, people are engaged in the pursuit of multiple goals (e.g. make a promotion at work, be a good parent, and have a nice social life) and thus need to regulate the allocation of effort between those goals in the face of demands for limited resources (Baumeister et al., 1998). When goal attainment is deemed likely, it is better to allocate effort at the attainment of other goals resulting in reduced effort expended at the focal goal. It may be that for modest, but realistic weight loss goals, goal attainment is perceived as proximal, thereby signaling that effort could be spend at achieving other life goals than losing weight (Carver and Scheier, 1998).

In sum, overweight and obese individuals trying to lose weight commonly select goals that exceed the recommended 5%–10% of initial weight, which appear to result from strong motivation to lose weight. Striving for more weight loss is associated with more effort directed to weight loss attempt as well as more short-term weight loss, whereas high weight loss goals are not associated with dissatisfaction.

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References

Ames GE, Perri MG, Fox LD, et al. (2005) Changing weight-loss expectations: A randomized pilot study. *Eating Behaviors* 6(3): 259–269.

Anderson DA, Lundgren JD, Shapiro JR, et al. (2003) Weight goals in a college-age population. *Obesity Research* 11(2): 274–278.

Baumeister RF, Bratslavsky E, Muraven M, et al. (1998) Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology* 74(5): 1252–1265.

Bonato DP and Boland FJ (1987) Predictors of weight loss at the end of treatment and 1-year follow-up for a behavioral weight loss program. *International Journal of Eating Disorders* 6(4): 573–577.

Byrne SM, Cooper Z and Fairburn CG (2004) Psychological predictors of weight regain in obesity. *Behaviour Research and Therapy* 42(11): 1341–1356.

Carver CS and Scheier MF (1998) *On the Self-Regulation of Behavior*. Cambridge: Cambridge University Press.

Conner M and Sparks P (2005) Theory of planned behaviour and health behaviour. In: Conner M and Norman P (eds) *Predicting Health Behaviour*. 2nd ed. New York: Open University Press, pp. 170–222.

Dalle Grave R, Calugi S, Molinari E, et al. (2005) Weight loss expectations in obese patients and treatment attrition: An observational multicenter study. *Obesity Research* 13(11): 1961–1969.

De Ridder DTD, Adriaanse MA and Voorneman I (submitted for publication) Don't be SMART, but think about what you desire: The importance of desirability over feasibility information in health goals.

Dutton GR, Perri MG, Dancer-Brown M, et al. (2010) Weight loss goals of patients in a health maintenance organization. *Eating Behaviors* 11(2): 74–78.

Fabricatore AN, Wadden TA, Rohay JM, et al. (2008) Weight loss expectations and goals in a population sample of overweight and obese US adults. *Obesity* 16(11): 2445–2450.

Fabricatore AN, Wadden TA, Womble LG, et al. (2007) The role of patients' expectations and goals in the behavioral and pharmacological

treatment of obesity. *International Journal of Obesity* 31(11): 1739–1745.

Foster GD, Phelan S, Wadden TA, et al. (2004) Promoting more modest weight losses: A pilot study. *Obesity Research* 12(8): 1271–1277.

Foster GD, Wadden TA, Phelan S, et al. (2001) Obese patients' perceptions of treatment outcomes and the factors that influence them. *Archives of Internal Medicine* 161(17): 2133–2139.

Foster GD, Wadden TA, Vogt RA, et al. (1997) What is a reasonable weight loss? Patients' expectations and evaluations of obesity treatment outcomes. *Journal of Consulting and Clinical Psychology* 65(1): 79–85.

Gorin AA, Pinto AM, Tate DF, et al. (2007) Failure to meet weight loss expectations does not impact maintenance in successful weight losers. *Obesity* 15(12): 3086–3090.

Hollenbeck JR, Williams CR and Klein HJ (1989) An empirical examination of the antecedents of commitment to difficult goals. *Journal of Applied Psychology* 74(1): 18–23.

Jeffery RW, Wing RR and Mayer RR (1998) Are smaller weight losses or more achievable weight loss goals better in the long term for obese patients? *Journal of Consulting and Clinical Psychology* 66(4): 641–645.

Klein HJ, Wesson MJ, Hollenbeck JR, et al. (1999) Goal commitment and the goal-setting process: Conceptual clarification and empirical synthesis. *Journal of Applied Psychology* 84: 885–896.

Klein HJ, Wesson MJ, Hollenbeck JR, et al. (2001) The assessment of goal commitment: A measurement model meta-analysis. *Organizational Behavior and Human Decision Processes* 85(1): 32–55.

Kruger J, Galuska DA, Serdula MK, et al. (2004) Attempting to lose weight: Specific practices among U.S. adults. *American Journal of Preventive Medicine* 26(5): 402–406.

Latham GP and Locke EA (1991) Self-regulation through goal setting. *Organizational Behavior and Human Decision Processes* 50(2): 212–247.

Linde JA, Jeffery RW, Finch EA, et al. (2004) Are unrealistic weight loss goals associated with outcomes for overweight women? *Obesity Research* 12(3): 569–576.

Linde JA, Jeffery RW, Levy RL, et al. (2005) Weight loss goals and treatment outcomes among overweight men and women enrolled in a weight loss trial. *International Journal of Obesity* 29(8): 1002–1005.

Locke EA and Latham GP (1990) *A Theory of Goal Setting and Task Performance*. Englewood Cliffs, NJ: Prentice Hall.

Locke EA and Latham GP (2002) Building a practically useful theory of goal setting and task motivation: A 35-year Odyssey. *American Psychologist* 57: 705–717.

Louro MJ, Pieters R and Zeelenberg M (2007) Dynamics of multiple-goal pursuit. *Journal of Personality and Social Psychology* 93(2): 174–193.

Masheb RM and Grilo CM (2002) Weight loss expectations in patients with binge-eating disorder. *Obesity Research* 10(5): 309–314.

Mento A, Locke E and Klein H (1992) Relationship of goal level to valence and instrumentality. *Journal of Applied Psychology* 77: 395–405.

Mokdad AH, Ford ES, Bowman BA, et al. (2003) Prevalence of obesity, diabetes, and obesity-related health risk factors, 2001. *JAMA* 289(1): 76–79.

National Institutes of Health (1998) Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults—The evidence report. *Obesity Research* 6(Suppl 2): 51S–209S.

Nelissen RMA, De Vet E and Zeelenberg M (2011) Anticipated emotions and effort allocation in weight goal striving. *British Journal of Health Psychology* 16(1): 201–212.

Ogden CL, Carroll MD, Curtin LR, et al. (2006) Prevalence of overweight and obesity in the United States, 1999–2004. *JAMA* 295(13): 1549–1555.

Provencher V, Bégin C, Gagnon-Girouard M, et al. (2007) Defined weight expectations in overweight women: Anthropometrical, psychological and eating behavioral correlates. *International Journal of Obesity* 31(11): 1731–1738.

Ryan RM and Deci EL (2000) Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist* 55: 68–78.

Sheldon KM and Kasser T (1995) Coherence and congruence: Two aspects of personality integration. *Journal of Personality and Social Psychology* 80: 152–165.

Sheldon KM and Kasser T (1998) Pursuing personal goals: Skills enable progress, but not all progress is beneficial. *Personality and Social Psychology Bulletin* 24(12): 1319–1331.

Sheldon KM, Ryan RM, Deci EL, et al. (2004) The independent effects of goal contents and motives

on well-being: It's both what you pursue and why you pursue it. *Personality and Social Psychology Bulletin* 30(4): 475–486.

Vidal J (2002) Updated review on the benefits of weight loss. *International Journal of Obesity* 26(Suppl 4): S25–S28.

Williams GC, Grow VM, Freedman ZR, et al. (1996) Motivational predictors of weight-loss and weight-loss maintenance. *Journal of Personality and Social Psychology* 70: 115–126.

Yanovski SZ and Yanovski JA (2002) Obesity. *New England Journal of Medicine* 346(8): 591–602.