Article

JHP

Journal of Health Psychology
2017, Vol. 22(7) 906–915

DOI: 10.1177/1359105315618000
journals.sagepub.com/home/hpq
SAGE

Why do diets fail? An exploration of dieters' experiences using thematic analysis

Kiera Buchanan[1] and Jeanie Sheffield[2]

Abstract

Previous research has drawn on theoretical models and clinical observations to develop propositions regarding the mechanisms of diet failure, with only one study examining it directly from the perspective of dieters themselves. Furthermore, research to date has failed to provide an empirically validated, multifactorial model of diet failure, despite the issue being recognised as a complex and multifaceted one. This study extended on previous research by examining themes of diet failure from the perspective of dieters ($n = 22$) and health professionals in the field ($n = 5$).

Keywords

diet failure, dieting, focus group, obesity, overweight, weight loss, weight management

The increasing rise in obesity is now regarded as a global epidemic, with the Global Burden of Disease Study 2010 (Murray et al., 2012) announcing that, for the first time in history, overeating is a more significant problem worldwide than starvation. Obesity rates in Australia were below 10 per cent prior to 1980. However, recent decades have seen them more than triple, reaching almost one-quarter of the current population (Australian Bureau of Statistics (ABS), 2011). Recent forecasts predict that if these figures continue rising at the same rate, 75 per cent of the population will be overweight or obese by 2030 (Australian Government, Preventative Health Taskforce, 2009). Dieting, defined as the deliberate effort to restrict food intake in order to achieve or to maintain a lower weight (Heatherton et al., 1991), has long been advocated as the solution to decreasing Body Mass Index (BMI) and addressing the obesity crisis. However, meta-analyses and follow-up studies indicate that weight-loss methods are either unsuccessful or the results are not maintained (Byrne, 2002; Heatherton et al., 1997; Jeffery et al., 1991; Patton et al. 1999; Perri, 1998). The National Institute for Health and Clinical Excellence (NICE) (2006) estimated that at any one time, one in four women and one in 10 men are on a diet to lose weight. Australian statistics state that in 2011–2012, over 2.3 million Australian adults reported being on a diet to lose weight (ABS, 2014). However, statistics consistently report that 95 per cent of dieters regain the lost weight within a few years, with two-thirds of people regaining more weight than they initially lost (Byrne, 2002; Heatherton et al., 1997; Jeffery

[1]Centre for Integrative Health, Australia
[2]The University of Queensland, Australia

Corresponding author:
Kiera Buchanan, Centre for Integrative Health, Suite 74, Silverton Place, 101 Wickham Terrace, Brisbane, QLD 4000, Australia.
Email: kiera@cfih.com.au

et al., 1991; Mann et al., 2007; Patton et al., 1999; Perri, 1998). A meta-analysis of 31 studies concluded that there was no evidence to support dieting as a means to achieve significant sustainable weight loss (Mann et al., 2007).

Repeated diet failure is not only a negative predictor for successful weight loss (Kiernan et al., 1998) but it also negatively impacts mental health. Feelings of failure and lack of control over one's life, decreased self-esteem, guilt and self-blame, irritability, anxiety and depression, difficulty concentrating and fatigue are commonly reported experiences of dieters (Polivy and Herman, 2002). Dieting is also a major precursor to disordered eating, with moderate dieters five times more likely to develop an eating disorder than those who do not diet at all (Patton et al., 1997). Finally, the weight cycling that follows failed diet attempts, regardless of whether or not all the lost weight is regained, is recognised as medically (Muls et al., 1995) and psychologically (Foreyt et al., 1995) harmful for both healthy-weight and overweight individuals.

Despite many diets claiming to be based on nutritional and medical science, low levels of effectiveness are consistent across methods (Dansinger et al., 2005). Differences in macronutrient components between diets have demonstrated negligible effects on weight loss (Alhassan et al., 2008) or body composition (Golay et al., 1996). Dieters' adherence has therefore been proposed to be a more prominent determinant of dieting success than diet method. However, little is known about the determinants of dieter adherence, with low levels of adherence consistently reported across dieting methods (Dansinger et al., 2005). In fact, one study (Alhassan et al., 2008) that aimed to identify factors implicated in adherence, reported low levels of overall adherence as a barrier to their research methodology. The researchers concluded that 'low adherence rates are a likely indication of the difficulty involved in closely following dietary weight loss guidelines' (p. 990). With the exception of one study (Green et al., 2009), research to date has failed to explore the mechanisms of adherence with dieters themselves. With no significant differences noted among dieting methods, demographic or physiological factors (i.e. age, education level, baseline body weight), the role of psychosocial characteristics (specifically, experiential and cognitive factors) warrants further investigation.

Reviews of the literature propose a number of psychosocial factors involved in non-adherence and consequently, diet failure. The deleterious effects of dietary restraint were first demonstrated in the Minnesota Semi-Starvation Experiment (1945), in which psychologically and physically healthy males agreed to adhere to a 'semi-starvation' diet for 6 months (Franklin et al., 1948). When the participants recommenced eating as normal, many of them engaged in binge-eating behaviour and subsequently exceeded their pre-starvation weight (Franklin et al., 1948). Dietary restraint gained considerable research attention with findings consistently concluding it to precede disinhibited eating, weight regain, and diet abandonment, even in non-clinical, healthy-weight populations (Herman and Mack, 1975; Polivy et al., 1988). Such findings led researchers to conclude: '… it seems that almost everything may serve to disrupt dietary restraint and that the fragility of restraint is itself a weapon in the service of restoring lost weight' (Polivy and Herman, 2002: 684). However, the mechanisms by which restraint influences diet adherence remain purely speculative.

The role of dichotomous thinking (the act of thinking in terms of binary opposites *black or white* or *all or nothing*, rather than on a continuum) has also attracted research attention. In a study examining the psychological variables in dieters who maintained weight loss and those who regained it, dichotomous thinking was demonstrated to be the only factor that discriminated between the two. Self-reported scores of food-related dichotomous thinking as well as dichotomous thinking in general were significantly higher among weight regainers than weight maintainers (Byrne et al., 2004). What remained unclear, however, is what predisposed dieters to engage in dichotomous thinking and, through which mechanisms did dichotomous thinking negatively influence diet adherence.

Other cognitive factors hypothesised to be involved in diet adherence have included dieting motivations (dieters' reasons for wanting to lose weight; Cooper and Fairburn, 2001), thought suppression (the tendency for efforts to suppress a particular thought to result in an increase of the very thoughts being suppressed; Johnston, Bulik, and Anstiss, 1999) and food cravings (Meule et al., 2011). However, these factors have generally been explored in isolation rather than as the complex interaction of factors that both obesity and dieting are recognised as being (e.g. Marti et al., 2004).

Previous research has also emphasised the need to understand dieters' experiences of diet adherence, with some researchers predicting improved adherence in dieters who embark upon diets of their choice, as opposed to ones to which they are assigned. The lack of understanding and regard for the experiential and cognitive components of dieting and weight loss has been shown to have a deleterious impact on those the interventions are intended for. An interview study with 142 obese adults (Lewis et al., 2010) revealed that public-health campaigns did nothing to increase intentions or behaviours of target audiences to lose weight. Rather, participants reported increased feelings of shame and stigmatisation, reduced self-efficacy and further de-motivated intentions to engage in healthy practices. As such, this study aimed to examine the phenomena of non-adherence (diet failure) from the perspective of dieters themselves in hope of proposing an integrated, multi-dimensional model that would then inform further testing with a larger sample size.

Method

Participants

A total of 22 self-reported dieters (9 males, 13 females) participated in one of the four focus groups. Participants were aged 18 to 49 (Mean (M) = 29.03, standard deviation (SD) = 5.54) years and had been on a minimum of two diets in the preceding 2 years. The mean BMI of the sample (26.12, SD = 4.01) as well as the ratio of healthy-weight (n = 8), overweight (n = 8) and obese (n = 6) participants was representative of the Australian adult population (ABS, 2011). An additional focus group was conducted with five female health professionals (one psychologist and four dietitians) currently working in the field of weight management with the aim of assessing their professional experiences of dieting among their clients.

Procedure

Approval to conduct the study was obtained from the School of Psychology Ethics Review Committee at the University of Queensland. As it was not the intention of the study to focus on specific weight categories but rather on individuals who had dieted to lose weight regardless of BMI category, a sampling method of convenience was employed. Participants were allocated to focus groups (approximately six participants per session) based on their availability. Focus groups were employed for their recognised role in the preliminary or exploratory stages of a study (Kreuger, 1988); in helping to explore or generate hypotheses (Powell and Single 1996); and in developing concepts for questionnaires (Hoppe et al., 1995; Lankshear, 1993). Focus groups have been described as '… invaluable for "grounded theory development" – focussing on the generation, rather than the testing of theory and exploring the categories which the participants use to order their experience' (Kitzinger, 1994: 108).

Focus group sessions lasted approximately 1.5 hours, until thematic saturation occurred. Session content was audio-recorded with participants' permission and transcribed for analysis. Thematic analysis of the transcripts was used, as it is a common and widely accepted qualitative research method in health psychology (Braun and Clarke, 2006; Magin et al., 2008). The analysis was based largely on a theoretical framework derived from reviews of the literature as well as the findings generated by Green et al. (2009). The study coordinator and

another health professional independently coded all transcripts through the inductive method of constant comparison coding technique (Pope and Mays, 2006). Differences in researcher perspectives were discussed and crosschecked to develop a set of consistent codes and themes that were used to interpret the final data.

Measures

A semi-structured interview schedule was used to guide the format of the focus group discussions, with each topic discussed until saturation. Participants were provided with a copy of the questions as well as space to provide any additional written responses that they did not feel comfortable discussing in the group.

Interview schedule main questions

- What do you consider the word 'diet' to mean?
- What prompts you to go on a diet?
- What do you do to prepare yourself (i.e. mentally) for a diet?
- What strategies do you use to stay on track while dieting?
- Where do you get information about eating and dieting from?
- How confident are you in your knowledge about eating and weight management?
- How difficult is dieting? What is difficult about it?
- What does or would aid dieting attempts?
- When is a diet considered a failure?
- What happens after you finish a diet?

Results

Based on the theoretical model used to create the semi-structured interview questions, a number of themes and subthemes emerged, as shown in Table 1.

Sociocultural messages

Dieters reported sociocultural messages to have a strong influence on their eating, their thoughts about and relationships with food, the perceived need to diet, as well as their dieting attitudes and behaviours. Dieters described experiencing an internal battle between motivations to eat and those to abstain from certain foods, which they attributed to conflicting media messages. On the one hand, sociocultural messages about food led to perceptions that these foods were necessary in order to 'enjoy life'. On the other hand, however, messages emphasised the importance of achieving weight loss.

Body dissatisfaction

Participants in the focus group consistently reported high levels of body dissatisfaction and subsequent low levels of self-esteem. Body image was perceived as a key evaluative aspect of an individual with participants attributing their misfortune in other areas of their lives (e.g. lack of romantic opportunities, inability to acquire work in desired fields, reduced athletic performance) to their extra weight.

Dieting motivations

Due to participants' preoccupations with and over-emphasis of weight as a determinant of health, attractiveness and other attributes, it is not surprising that the majority of dieters reported dieting for appearance-related reasons. All of the dieters reported having weight and/or size goals as well as a tendency to frequently monitor their weight and size in tracking their progress towards these goals. In exploring health motivations, as opposed to appearance-related motivations, participants agreed that health was not a significant motivator and that given the choice, participants would sacrifice their health if it meant achieving a lower body weight.

Confusion

The conflicting information and messages regarding food, eating and weight loss was a strong source of concern among dieters and reported to be a barrier to dieting success.

Table 1. Summary of themes identified by dieters and health professionals.

Themes	Subthemes
Sociocultural messages	Influence on eating attitudes and behaviours Conflicting messages
Body dissatisfaction	Body dissatisfaction Low self-esteem
Appearance motivation	Desire to lose weight for appearance-related reasons Belief that weight loss will lead to other desired outcomes
Confusion	Conflicting information Strong desire to improve understanding Actively seeking clear information
Diet phase	The approach to eating while on a diet differs largely to the approach either side of dieting Seen as a short-term approach
Dichotomous thinking	All-or-nothing, black-or-white approaches to food and eating Tendency to adhere to rigid set of rules until a slight deviation is experienced, which is followed by disinhibited eating
Food cravings	Increased desire for food while on a diet Increased preoccupation with food and eating
Thought suppression	Attempts to avoid thinking about food Attempts to avoid seeing desired food (removing it from the house, avoiding social events)
Binge eating	Disinhibited eating Eating beyond a feeling comfortably full Experiencing a loss of control while eating
Self-perception	Tendency for self-esteem to be dependent on ability to adhere to diet Not adhering to diet led to decreased self-efficacy

Efforts to clarify their understanding of nutrition often left dieters feeling more confused and overwhelmed as their research only served to find more contradictory, rather than supporting, information. One female participant reported,

> I feel very confused and overwhelmed by all the contradictory information out there telling me to cut carbs … no, eat carbs … drink protein shakes … eat three meals per day … no, eat six meals per day … do interval training … no, walk for one hour a day … do weight training … don't do weight training … Arghh! I really just want the right answer!

Rather than improving their confidence and ability to adhere to a diet, researching information left dieters feeling ambivalent about their own weight-loss programme and decreased their dieting self-efficacy. Dieters commonly claimed that if only they knew exactly *how* to lose weight, they would be able to do so. The health professionals involved in the study confirmed this finding, reporting that dieters seemingly knew a lot about food. However, they agreed that the acquisition of knowledge often hindered, rather than helped, dieting efforts through overcomplicating the process of eating.

Diet phase

Prior to commencing a diet, participants reported engaging in lengthy and detailed organisational behaviours to prepare themselves for the dieting phase. Such organisation included preparing and organising meals, goal-setting, establishing rules, removing temptation, collecting information and recipes, developing mantras and sources of motivation and even bingeing the night before. Dieters then proceeded to implement drastic changes to their eating behaviour, which typically involved

rigid rules and restriction. Dieters expressed the tendency to return to their previous eating habits upon finishing a diet, regardless of whether or not the diet was successful; suggesting that diets were conceptualised as a phase, rather than a change in lifestyle. The health professionals interviewed also nominated this as a problematic feature of dieting efforts; alleging that dieters commonly made claims of looking forward to ending their diets and returning to their old ways of eating, with little recognition that doing so would result in weight regain.

Dichotomous thinking

The type of eating plan that was embarked upon was described as drastically different to their usual ways of eating. Dieters then reported a tendency to respond to violations of their plan in a dichotomous and catastrophic manner; perceiving the consumption of one unplanned food item to signal they had failed entirely in their dieting efforts. Dieters claimed that such violations would diminish their self-efficacy and make future violations more likely. Interestingly, this catastrophic response did not follow the consumption of non-diet foods when the dieter had allowed for it or planned for it. One male participant stated: 'If I planned it, I don't give it a second thought whereas, if I eat something that I hadn't planned, the pain of regret hangs around for days and days'. Participants of this study also reported approaching exercise in the same all-or-nothing manner; if the individual was unable to exercise on a given day, they were more likely to abandon their eating plan for that day as well. Again, health professionals echoed this theme, reporting that dichotomous thinking was prevalent among weight-loss patients and appeared to have a negative impact on outcomes. Further to this, health professionals reported efforts to address this phenomenon had seemingly little impact on reducing its occurrence or intensity.

Food cravings

Participants reported an increased temptation for desired foods while on a diet. One dieter reported: 'When you're on a diet, it's harder to avoid them [unhealthy foods]. Ice cream is something that I like having once per week but when I'm on a diet, I want to have it every day'. When asked why desired foods needed to be eliminated entirely (rather than simply reduced), dieters reported a perceived inability to consume such foods in moderate quantities, likening their desire for certain foods to that of an addiction. One dieter reported: 'It's just like asking a recovered heroin addict to have just one hit'. The cravings experienced as a result of abstaining from certain foods were conceptualised by the dieters as evidence of their addictions to, or problems with, food. While the health professionals were unable to comment as to whether the cravings experienced intensified for their patients while on a diet, they did report observations that their dieting patients appeared overly preoccupied with food and eating.

Thought suppression

In their attempts to restrain from certain foods, dieters described efforts to avoid food, both physically and cognitively. Not only did they avoid social situations and environments where they might be exposed to forbidden foods but they also went to lengths to avoid thinking about food. However, as consistently reported in the literature (i.e. Wegner et al., 1987), dieters reported an increase in food- and eating-related thoughts as a result of attempted thought suppression. Again, this was interpreted by dieters as being indicative of their problem with food and further reinforced their perceived need to avoid it.

Binge eating

Participants reported an increased frequency and intensity of binge-eating behaviour while on a diet. Binges were described as being precipitated by dietary violations. Rather than attributing their binge to the catastrophic response to the violation, dieters believed the consumption of the forbidden food to be the cause, further prompting them to abstain from desired foods.

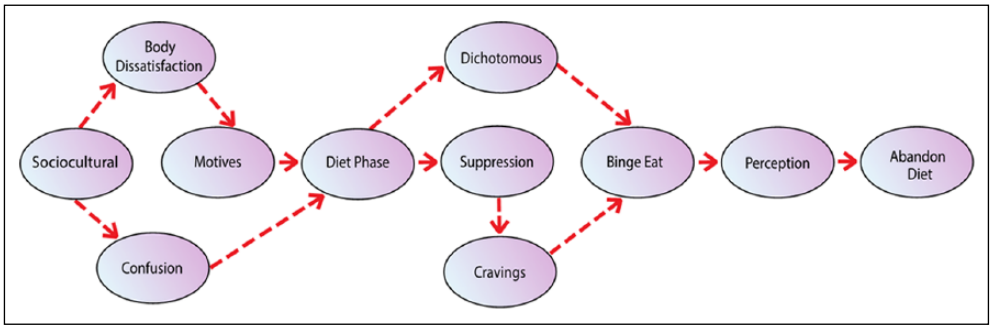

Figure 1. Summary and hypothesised interrelation of themes identified in diet failure.

The health professionals involved in the study reported suspecting that binge-eating behaviour occurred more frequently than was reported by their dieting patients; however, they felt that shame limited such self-reports from patients.

Self-perception

Dieters reported a tendency to derive their self-worth from their ability to adhere to their diet. When dieters were able to adhere to their diet, they perceived themselves positively; describing themselves as 'disciplined', 'strong willed' and 'determined'. When they deviated from their intended plan however, they described themselves negatively (i.e. 'I'm weak', 'I have no will power', 'I'm a failure'). There was also a tendency to credit the diet when weight loss occurred and to blame themselves, rather than the diet, when weight loss did not occur. The health professionals also endorsed this same theme among their dieting patients; noting an improved mood and sense of self-efficacy among patients when they reported doing well and a diminished mood and sense of self on occasions when they admitted to deviating from their diet plans.

A summary of the identified themes and their hypothesised relationship with one another (for future testing) is depicted in Figure 1.

Discussion

A large number of studies (e.g. Byrne, 2002; Dansinger et al., 2005; Jeffery et al., 1991; Polivy et al., 1988; Rand and Macgregor, 1991) have assessed different facets of diet failure. However, only one (Green et al., 2009) has examined it from the perspective of dieters themselves. Since it is dieters' evaluations of their dieting experiences which has the greatest bearing on their dieting outcomes, understanding dieting from this perspective has important implications for both public-health and individual interventions. Previous research in the field (i.e. Lewis et al., 2010) has also illustrated that interventions and public-health campaigns can be experienced by target audiences quite differently to how they are intended, further highlighting the need for dieters' own experiences to be considered. Green et al. (2009) identified five key themes pertaining to diet failure. Although there appeared to be some similarities in the way diet failure was experienced by participants in both studies, there were also a number of significant differences. While some parallels could be assumed, the themes identified by Green et al. (2009) did not always accurately capture the experiences reported by participants in this study, highlighting the need for further investigation.

Dieting and diet failure is recognised in the literature as a complex and multi-determined issue; however, past research has typically examined unhelpful dieting factors in isolation. As such, this study aimed to generate a number of themes, guided by the current literature as well as by both dieters and those working with dieters, in hope of proposing an integrated model for further testing. The results of this study confirmed dieting and diet failure to be a

complex multivariate phenomenon that is likely best conceptualised within a multi-factorial model. That is, dieting and diet failure were reported by dieters to be a complex cluster of interrelated environmental influences, perceptions, behaviours and cognitions with fundamental behavioural and psychological outcomes. While multi-factorial models are popular in the disordered eating literature (e.g. Huon and Strong, 1998), this approach appears to be relatively innovative to the weight loss and dieting literature. These preliminary findings provide support for the conceptualisation of diet failure within a multi-factorial model as well as a hypothesised model for future testing.

While previous research has relied predominantly on clinical observations, this research examined dieting experiences from the perspective of dieters themselves. Dieters' accounts of dieting and diet failure provided useful explanations as to how factors previously identified in the literature are actually experienced by dieters themselves. These experiences should be taken into account when developing interventions or public-health campaigns targeting those with weight- and eating-related concerns.

Despite its strengths and contributions to the literature, this study was not without its limitations. While focus groups are invaluable in creating an exploratory environment in the initial phases of research, focus groups also pose potential limitations. As such, future endeavours should aim to explore the factors highlighted within individual interviews or self-reported questionnaires. Although the inclusion of male participants rendered a sample that approximated the real-world ratio of female-to-male dieters (according to statistics reported by NICE, 2006), the sample was still predominantly represented by females. This insufficient number of male participants also prohibited the analyses within a male-only sample. As such, future endeavours should aim to assess the findings with a larger-sized sample with the inclusion of more male participants in order to assess whether diet failure is experienced similarly for males and females.

In summary, the findings of this study provide suggestions for a theoretical framework that could be tested in a future study incorporating a larger and more diverse sample of dieters. The findings also emphasise the need for those working in clinical settings to individually tailor interventions to better meet the specific needs of clients if improvements in adherence are to be obtained.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

Alhassan S, Kim S, Bersamin A, et al. (2008) Dietary adherence and weight loss success among overweight women: Results from the A to Z weight loss study. *International Journal of Obesity* 32(6): 1–7.

Australian Burea of Statistics (ABS) (2011) *Overweight and obesity in adults in Australia: A snapshot*. ABS Cat. no. 4842.0.55.001. Canberra, ACT, Australia: ABS.

Australian Burea of Statistics (ABS) (2014) *Australian health survey: Nutrition first results – Foods and nutrients, 2011–12*. ABS Cat. no. 4364.0.55.007. Canberra, ACT, Australia: ABS.

Australian Government, Preventative Health Taskforce (2009) Australia: The healthiest country by 2020 – National preventative health strategy – The roadmap for action. Available at: http://www.health.gov.au/internet/preventativehealth/publishing.nsf/Content/CCD7323311E358BECA2575FD000859E1/$File/nphs-roadmap.pdf

Braun V and Clarke V (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology* 3(2): 77–101.

Byrne SM (2002) Psychological aspects of weight maintenance and relapse in obesity. *Journal of Psychosomatic Research* 53(5): 1029–1036.

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

Cooper Z and Fairburn CG (2001) A new cognitive behavioural approach to the treatment of obesity. *Behavioural Research Therapy* 39(5): 499–511.

Dansinger ML, Gleason JA, Griffith JL, et al. (2005) Comparison of the Atkins, Ornish, weight watchers and zone diets for weight loss and heart disease risk Reduction. *The Journal of the American Medical Association* 293(1): 43–53.

Foreyt JP, Brunner RL, Goodrick GK, et al. (1995) Psychological correlates of weight fluctuation. *International Journal of Eating Disorders* 17(3): 263–275.

Franklin JC, Schiele BC, Brozek J, et al. (1948) Observations on human behavior in experimental semistarvation and rehabilitation. *Journal of Clinical Psychology* 4(1): 28–45.

Golay A, Allaz AF, Morel Y, et al. (1996) Similar weight loss with low- or high-carbohydrate diets. *American Journal of Clinical Nutrition* 63: 174–178.

Green AR, Larkin M and Sullivan V (2009) Oh stuff it! The experience and explanation of diet failure an exploration using interpretative phenomenological analysis. *Journal of Health Psychology* 14(7): 997–1008.

Heatherton TF, Mahamedi F, Striepe M, et al. (1997) A 10-year longitudinal study of body weight dieting and eating disorder symptoms. *Journal of Abnormal Psychology* 106(1): 117–125.

Heatherton TF, Polivy J and Herman CP (1991) Restraint weight loss and variability of body weight. *Journal of Abnormal Psychology* 100(1): 78–83.

Herman CP and Mack D (1975) Restrained and unrestrained eating. *Journal of Personality* 61(1): 647–660.

Hoppe MJ, Wells EA, Morrison DM, et al. (1995) Using focus groups to discuss sensitive topics with children. *Evaluation Review* 19(1): 102–114.

Huon GF and Strong KG (1998) The initiation and maintenance of dieting: Structural models for large-scale longitudinal investigations. *International Journal of Eating Disorders* 23: 361–369.

Jeffery R, Adlis SA and Forster JL (1991) Prevalence of dieting among men and women: The healthy worker project. *Health Psychology* 10(4): 274–281.

Johnston L, Bulik CM and Anstiss V (1999) Suppressing thoughts about chocolate. *International Journal of Eating Disorders* 26(1): 21–27.

Kiernan M, King AC, Kraemer HC, et al. (1998) Characteristics of successful and unsuccessful dieters: An application of signal detection methodology. *Annals of Behavioral Medicine* 20(1): 1–6.

Kitzinger J (1994) The methodology of Focus Groups: The importance of interaction between research and participants. *Sociology of Health and Illness* 16(1): 103–121.

Kreuger RA (1988) *Focus Groups: A Practical Guide for Applied Research*. London: SAGE.

Lankshear AJ (1993) The use of focus groups in a study of attitudes to student nurse assessment. *Journal of Advanced Nursing* 18: 1986–1989.

Lewis S, Thomas SL, Hyde J, et al. (2010) 'I don't eat a hamburger and large chips every day!' A qualitative study of the impact of public health. *BMC Public Health* 10(301): 1–9.

Magin P, Adams J, Joy E, et al. (2008) General practitioners' assessment of risk of violence in their practice: Results from a qualitative study. *Journal of Evaluation in Clinical Practice* 14(3): 385–390.

Mann T, Tomiyama AJ, Westling E, et al. (2007) Medicare's search for effective obesity treatments: Diets are not the answer. *American Psychologist* 62(3): 220–233.

Marti A, Moreno-Aliaga MJ, Hebebrand J, et al. (2004) Genes, lifestyles and obesity. *International Journal of Obesity* 28(S3): S29–S36.

Meule A, Westenhofer J and Kubler A (2011) Food cravings mediate the relationship between rigid, but not flexible, control of eating beahiour and dieting success. *Appetite* 57(3): 582–584.

Muls EK, Kempen K, Vansant G, et al. (1995) Is weight cycling detrimental to health? A review of the literature in humans. *International Journal of Obesity* 19(3): 46–50.

Murray CJL, Ezzati M, Flaxman AD, et al. (2012) GBD 2010: A multi-investigator collaboration for global comparative descriptive epidemiology. *The Lancet* 380(9859): 2055–2058.

National Institute for Health and Clinical Excellence (NICE) (2006) *Obesity: The Prevention, Identification, Assessment and Management of Overweight and Obesity in Adults and Children*. London: NICE National Collaborating Centre for Primary Care.

Patton GC, Carlin JB, Shao Q, et al. (1997) Adolescent dieting: Healthy weight control or borderline eating disorder? *Journal of Child Psychology and Psychiatry and Allied Disciplines* 38(3): 299–306.

Patton GC, Selzer R, Coffey C, et al. (1999) Onset of adolescent eating disorders: Population based cohort study over 3 years. *British Medical Journal* 318 (7186): 765–772.

Perri MG (1998) The maintenance of treatment effects in the long-term management of obesity. *Clinical Psychology Science and Practice* 5(4): 526–543.

Polivy J and Herman P (2002) If at first you don't succeed: False hopes of self-change. *American Psychologist* 57(9): 677–689.

Polivy J, McGree ST, King GA, et al. (1988) The (mis)measurement of restraint: An analysis of conceptual and psychometric issues. *Journal of Abnormal Psychology* 97(1): 19–28.

Pope C and Mays N (2006) *Qualitative Research in Health Care* (3rd edn). Oxford: John Wiley & Sons.

Powell RA and Single HM (1996) Focus groups. *International Journal of Quality in Health Care* 8(5): 499–504.

Rand CS and Macgregor AM (1991) Successful weight loss following obesity surgery and the perceived liability of morbid obesity. *International Journal of Obesity* 15(9): 577–579.

Wegner DM, Schneider DJ, Carter SR 3rd, et al. (1987) Paradoxical effects of thought suppression. *Journal of Personality and Social Psychology* 53(1): 5–13.