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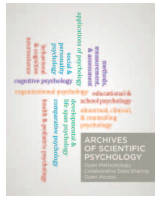

SPECIAL SECTION: HETERODOX ISSUES IN PSYCHOLOGY

Slim Chance for Permanent Weight Loss

Esther D. Rothblum
San Diego State University

A B S T R A C T

Since the 1950s, health and mental health professionals have criticized the conventional wisdom that people can lose weight and keep it off. Weight loss programs have high dropout rates and rarely have participants move from "clinical" to "normal" weights, and the overwhelming majority of people who lose even 5–10% of body weight have regained it 1 year later. The present article reviews some challenges in the weight loss research and provides some possible reasons why psychologists continue to uphold the conventional wisdom that permanent weight loss is possible.

S C I E N T I F I C A B S T R A C T

Since the 1950s, health and mental health professionals have criticized the conventional wisdom that permanent weight loss is possible. Clinical trials on weight loss have high dropout rates and rarely have participants move from "clinical" to "normal" body mass index levels, and the overwhelming majority of people who lose even 5–10% of body weight have regained it 1 year later. The present article reviews some methodological issues in the weight loss literature and provides some possible reasons why psychologists continue to uphold the conventional wisdom that permanent weight loss is possible.

Keywords: heterodox, weight loss, dieting, dieting failures, weight loss maintenance

> Most obese persons will not stay in treatment of obesity. Of those who stay in treatment most will not lose weight and of those who do lose weight, most will regain it. —Albert Stunkard (1958, p. 79)

When I was hired by a psychology department in 1982, a number of my department colleagues smoked cigarettes; by the end of that century, most of them had quit. During that same time, I watched as some of my colleagues lost substantial amounts of weight and then gradually gained it back, some on several occasions. These colleagues could not be faulted for lack of "willpower" since quitting smoking is not easy. Yet in all those years, no one ever questioned the conventional wisdom that permanent weight loss was possible. How could academic psychologists, many of whom were conducting evidence-based research, ignore the data—not just the visible evidence of weight lost and regained among their colleagues but also that of the research literature? This article will review methodologic issues in the weight loss literature and speculate on why psychologists continue to believe that permanent weight loss is possible.

Methodologies of Weight Loss Research Programs

The general methodology of clinical trials in weight loss is to recruit participants who have a body mass index (BMI) in the "overweight" or "obese" categories and randomly assign them to one of several treatment groups. There is often a "standard care" intervention (e.g., Weight Watchers, Jenny Craig), an experimental treatment (e.g., very low-calorie diet, exercise, behavior therapy), and a control group (e.g., attention placebo or waiting list). Participants are weighed before and after treatment and usually at a follow-up session that might take place 6 months, 1 year, or 2 years after treatment is over.

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Correspondence concerning this article should be addressed to Esther D. Rothblum, Department of Women's Studies, San Diego State University, MC 6030, 5500 Campanile Drive, San Diego, CA 92182. E-mail: erothblu@mail.sdsu.edu

Three common challenges to this methodology are (1) very high attrition of participants, (2) very little weight lost in any treatment condition, and (3) weight regain at follow-up. These issues will be described below.

Attrition

A major problem in weight loss interventions is the number of people who drop out of the programs, especially if they are not losing weight. This means that the posttreatment and follow-up participants constitute the more successful dieters and thus inflate the results. One of the reasons for why ineffective psychotherapies appear to work is "selective attrition," referring to the fact that people who drop out of therapy do not improve to the same extent as those who remain (Lilienfeld, Ritschel, Lynn, Cautin, & Latzman, 2014, p. 362).

For example, Gardner et al. (2007) screened 1,479 participants for admission into weight loss programs; 698 (47%) were "ineligible or not interested" (p. 971) and an additional 470 (32%) "declined to participate or other." The remaining 311 participants (only 21% of the original population screened) were randomly assigned to four treatment conditions, where a further 62 participants (20% of the treatment group) withdrew at some point. The authors asked withdrawn participants for their reasons, which included problems with their schedule, personal or family reasons, getting pregnant, moving away, health, not enjoying the program, or "other." Honas, Early, Frederickson, and O'Brien (2003) measured attrition at 8 and 16 weeks in a weight loss program; 31% of their sample of 866 participants dropped out. Factors that predicted dropout included being female, African American, divorced, and aged 40–50. In a review of commercial weight loss programs in the United States, the authors emphasize that "because many studies did not control for high attrition rates, the reported results are probably a best-case scenario" (Tsai & Wadden, 2005, p. 56).

Measurement of Weight

Due to the nature of weight loss interventions, where researchers compare several treatment programs to each other, the emphasis is on statistical, not clinical, significance. Usually the new treatment program, created by the researchers, is more effective than treatment as usual. Interventions that combine a number of aspects are more effective than those that focus on only one element, and most interventions are more effective than the waiting list or attention placebo control groups. Given enough participants, a modest weight loss in one intervention (e.g., 10 or 15 pounds when treatment has ended) will be statistically different from one in which participants lost less weight, stayed the same, or even gained weight. This focus on pounds lost *between* groups detracts from the results *within* individuals—that few people lose significant amounts of weight.

Cogan and Rothblum (1992) conducted a review of a stratified random sample of 50 weight loss studies from the 1980s, focusing on change in weight and change in percentage who were overweight after treatment and follow-up. They state, "The typical participant was a White, middle-class woman 48% over her average weight before treatment, who lost 12.8 lb during a 13-week treatment program and then regained 4.3 lb over the next 6.5 months" (p. 387). For example, if a typical participant's ideal weight was 120 lb, that meant she weighed about 180 lb before treatment, about 167 lb after treatment, and 171 lb at follow-up. It is unlikely that such a small change in weight would result in a change in appearance or clothing size. This study also found that efficacy was not improved when only the most successful treatment condition was examined in each study.

Published weight loss studies also differ from other clinical topics (e.g., depression, cigarette smoking, substance use, anxiety disorders) in that the outcome measure is only an increment of success—pounds lost rather than change from a BMI in the clinical range to one in the "normal" range. In contrast, smoking cessation interventions report the number of participants who quit—that is, who are smoking no cigarettes at all. At follow-up, the emphasis is on the percentage of former smokers who continued to quit smoking altogether. These studies do not report that one intervention condition for smoking went from, say, 30 cigarettes a day to 22 cigarettes, whereas another condition improved by smoking only 15 cigarettes a day. The same is true for interventions focused on anxiety disorders, depression, eating disorders, sexual dysfunction, and substance use disorders, among others. Were the weight loss literature to use the same criterion—the percentage of participants who went from a BMI in the overweight or obese category to one in the normal weight range—hardly anyone would qualify. In Cogan and Rothblum's (1992) review of 50 weight loss programs, only one study indicated that participants moved from clinical to nonclinical BMI levels. As Mann et al. (2007) state about weight loss participants after treatment has ended, "Clearly, these participants remain obese" (p. 223).

Teixeira et al. (2004) report from the outset that they define "success" as participants who lost 5% or more at the 16-month follow-up. But how do participants cope with the reality of weight loss that may be so much less than their ideal goals? Using data from the 1989 Behavioral Risk Factor Surveillance System, Williamson, Serdula, Anda, Levy, and Byers (1992) reported that 25% of men and 40% of women were currently trying to lose weight; there has been little research on how weight loss participants cope with dieting failures.

Follow-Up

The longer the follow-up period, the more weight participants have regained. This presents a challenge to researchers, since funding may not continue for years after the weight loss programs have ended. Mann et al. (2007) located 14 studies in which weight loss participants were followed for 4 years or more. Although on average participants had lost 30.8 lb during the treatment, by the follow-up, they had regained back 24 of those pounds. Yet the authors state that even these results may be inflated due to four reasons: Long-term follow-ups have very high attrition, participants self-report their weight, food restriction is confounded with exercise, and participants continue on other diets once the research intervention has ended. Mann et al. (2007) state that even in studies with very long follow-up periods, "The weight regain trajectories did not typically appear to level off . . . suggesting that if participants were followed for even longer, their weight would continue to increase" (p. 221).

Wing and Hill (2001) established the National Weight Control Registry in 1994, defining "success" as 10% of weight lost and maintained for at least 1 year. According to these criteria, they find that 20% of overweight respondents meet their criteria. The registry has been criticized for recruiting participants via newspaper and magazine articles, for its self-report of BMI, and for its relatively short follow-up period (Ikeda et al., 2005).

Efficacy of Commercial Weight Loss Programs

The vast majority of dieters do not participate in clinical trials at research universities but pay to join commercial weight loss programs such as Weight Watchers or Jenny Craig. Few such commercial programs publish results of weight loss over time, but Tsai and Wadden (2005) conducted a review of those who did, including

Weight Watchers, eDiets.com, Health Management Resources, Take Off Pounds Sensibly, and OPTIFAST. They conclude, "Of 3 randomized, controlled trials of Weight Watchers, the largest reported a loss of 3.2% of initial weight at 2 years. One randomized trial and several case series of medically supervised very-low-calorie diet programs found that patients who completed treatment lost approximately 15% to 25% of initial weight. These programs were associated with high costs, high attrition rates, and a high probability of regaining 50% or more of lost weight in 1 to 2 years. Commercial interventions available over the Internet and organized self-help programs produced minimal weight loss" (p. 56). Weight loss programs in the published literature differ of course from the many faddish and even dangerous diets advertised in the general media, such as diets that involve eating only one type of food (e.g., grapefruit, liquid protein), fasting, or purchasing a commercial product.

Efficacy of Weight Loss Programs in Schools and Work Settings

A number of schools and work settings, concerned about the "obesity epidemic," are initiating weight loss programs in these institutions. Jaime and Lock (2009) reviewed 18 studies that changed nutrition in schools, including preschools, elementary schools, and high schools. Although the purpose of these studies was concern over the prevalence of obesity, only one study actually measured BMI. Similarly, Story, Nanney, and Schwartz (2009) reviewed the federal, state, and local policies about food and physical activity policies in schools. They concluded that few studies have measured the impact of these policies on BMI. In one of the few studies to measure BMI, James, Thomas, and Kerr (2007) examined changes in BMI among schoolchildren in England, in a 12-month program that focused on reducing the consumption of carbonated drinks. Although the study does not report actual BMIs (these were converted to *z* scores), and one third of the sample was lost to follow-up, there were no significant differences in the BMIs of the intervention and control group at the 2-year follow-up.

The focus on school-based interventions for obesity (e.g., nutritious school lunches, nutrition education, school vegetable gardens, school physical education, physical activity standards; see Story et al., 2009, for a review) without much data on children's BMI gives the erroneous impressions that these interventions are effective for weight loss. Instead, these programs may further stigmatize obese children. Ikeda, Crawford, and Woodward-Lopez (2006) discuss the potential harm that may arise from BMI screening in schools, including lower self-esteem, disordered eating, decreased body satisfaction, increased stigmatization, and bullying.

Work settings have also initiated weight loss programs, with little success. Benedict and Arterburn (2008) reviewed 11 controlled clinical trials of worksite weight loss programs. Only five studies reported the attrition rates, which ranged from 0% to 44%. Most studies provided data only on participants who completed the program (given that all participants were employees, it seems that those who dropped out of the program could still have been contacted). In general, the experimental groups lost more weight (1.0–6.3 kg) than the control groups (0.7 kg to a gain of 0.5 kg). Follow-up periods ranged from 2 to 18 months, but only one study reported weight maintenance at follow-up.

Similarly, Anderson et al. (2009) reviewed 47 worksite interventions in a number of countries that focused on weight loss. With one exception, the sample sizes were relatively small (mean of 141), and attrition ranged from 0% to 82%. Only 15 studies reported weight lost; of those, the difference in weight lost among the intervention and control groups was 3 lb after 6–12 months. When studies reported longer follow-up periods, the results were modest, and at 4 years, there was no longer a difference between the experimental and follow-up groups.

A number of studies have found that obese people, especially women, face enormous stigma in the work setting (see Fikkan & Rothblum, 2012, for a review), including discrimination in hiring, salary, benefits, evaluations, and firing. Thus, it would seem that workplace weight loss interventions are a bad idea, since they highlight something that cannot be changed and may blame employees for failure to lose weight and keep it off.

Prestigious Journals Have Emphasized Lack of Efficacy of Weight Loss

The failure of weight loss diets has been publicized in academic journals—repeatedly. This includes coverage in prestigious journals with wide readerships.

In 1998, the *New England Journal of Medicine* published an editorial entitled "Losing Weight—An Ill-Fated New Year's Resolution?" coauthored by Jerome Kassirer (at the time, the *New England Journal*'s editor) and Marcia Angell. In a similar quote to the one by Stunkard in 1958, they wrote, "Today, at the start of the new year, millions of Americans will resolve to lose weight, but by tomorrow, or next week, or maybe next month, most of them will have given up trying" (p. 52). The go on to describe the failure of weight loss; the high prevalence of dieting in the United States, particularly among women and girls; and the need for doctors "to do their part to help end discrimination against overweight people in schools and workplaces" (p. 53).

In 2007, the *American Psychologist,* sent to all members of the American Psychological Association, published an article entitled "Medicare's Search for Effective Obesity Treatments: Diets Are Not the Answer" (Mann et al., 2007). The abstract states, "These studies show that one third to two thirds of dieters regain more weight than they lost on their diets, and these studies likely underestimate the extent to which dieting is counterproductive because of several methodological problems, all of which bias the studies toward showing successful weight loss maintenance" (p. 220).

In 2017, both the Centers for Disease Control and Prevention (https://www.cdc.gov/pcd/issues/2017/16_0573.htm) and the National Institutes of Health (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5477783/pdf/PCD-14-E48.pdf) publicized the article "Beyond Body Mass Index: Are Weight-Loss Programs the Best Way to Improve the Health of African American Women?" (Dodgen & Spence-Almaguer, 2017). The article indicated that African American women tend to lose even less weight than White women during dieting programs, followed by weight regain. The authors conclude that a holistic approach to health, rather than attempts to lose weight, should be the goal.

Major Media Have Emphasized Lack of Efficacy of Weight Loss

One of the foremost science writers about body weight has been Gina Kolata (cf. 2016a, 2016b, 2016c, for recent examples), who has published articles in the *New York Times* about the failures of diets and exercise programs for several decades that have been syndicated by other media. In her article "Myths of Weight Loss Are Plentiful, Researcher Says" (Kolata, 2013), she writes that "people often rely on weak studies that get repeated ad infinitum." Kolata quotes an obesity researcher, Jeffrey Friedman, who stated "there is more misinformation pretending to be fact in this field than in any other I can think of."

A recent cover story of the *New York Times Magazine* was entitled "Losing It" (Brodesser-Akner, 2017), with the following quote: "In Weight Watchers' own research, the average weight loss in any behavior-modification program is about a 5 percent reduction of body weight after six months, with a return of a third of the weight lost at two years. There were studies that appeared to indicate that the cycle of weight loss and weight gain could cause long-term damage to the metabolism. Those studies led to more studies, which suggested that once your body reaches a certain weight, it is nearly impossible to exist at a much lower weight for an extended period of time. Even more studies began to question whether or not it's so bad to be fat in the first place; one notably suggested that fatter people lived longer than thin ones" (p. 36).

That same week, the *Washington Post* focused on childhood obesity, stating, "Although the public health community has been trying to address the childhood obesity epidemic for years, progress has been disappointing. Often, governments or schools will make a single policy change—more fruit in school lunches, no soda machines in parks—only to find no effect" (Tullis, 2017, p. 1).

Why Do People, Including Psychologists, Continue to Believe That Permanent Weight Loss Is Possible?

The research about weight loss maintenance failure has been replicated numerous times, published in prestigious sources, and communicated via the popular media. Why, then, are psychologists not convinced of these results?

"Calories In, Calories Out" Sounds Logical

Social psychological research has demonstrated that people believe assertions that make common sense; as Lilienfeld et al. (2014) state, "Scientific thinking does not come naturally to the human species" (pp. 357–358). Most people, regardless of their BMI, have experienced a time when they lost a few pounds quickly due to illness or extreme exercise—and, conversely, gained a few pounds quickly after a holiday weekend. This adds to the belief that BMI is the result of changes in eating and exercising. Benton and Young (2017) review the literature on caloric intake and point out that the body begins to compensate for weight fluctuation even after 2 days. They state, "In the short term, a reduction in energy intake is counteracted by mechanisms that reduce metabolic rate and increase calorie intake, ensuring the regaining of lost weight. For example, even a year after dieting, hormonal mechanisms that stimulate appetite are raised. Over a million calories are consumed a year yet weight changes to only a small extent; there must be mechanisms that balance energy intake and expenditure" (p. 703).

Similarly, exercise has not been shown to reduce body weight (cf. Garner & Wooley, 1991, for a review). In fact, heavier people expend more energy than thinner people doing the same task. Allison (interviewed by Kolata, 2013) stated that myths about weight loss due to diet and exercise are based on a "reasonable bias"—if the advice makes reasonable sense, then it must be true.

Weight Loss Programs Make Unrealistic Claims

Weight loss ads and commercials bombard the media, including social media, with diets and other products claiming to result in large amounts of weight loss. There is little focus on long-term maintenance. The images accompanying these ads are of extremely thin and attractive people. Fox (2018) describes how the before-and-after photo in weight loss advertisements "glorifies the future at the expense of the past and present" (p. 217), creating the impression that progress is inevitable and success is guaranteed.

Research in social psychology on confirmation bias has demonstrated that people tend to seek out evidence that supports their own beliefs and also to dismiss evidence that is contrary to these beliefs (cf. Lilienfeld et al., 2014, for a review). Thus, it is not surprising that consumers take these exaggerated weight loss claims for granted.

Thinness Is a Major Criterion for Attractiveness

Media images show women—and increasingly men and children—who are so underweight that even "normal-weight" people will feel fat in comparison. Not surprisingly, the majority of people feel fat even when thin and restrict their eating (see Garner & Wooley, 1991, for a review). For overweight and obese individuals, prejudice, bullying, and discrimination increase in proportion to their BMI (cf. Rothblum, 1992, 2011, for reviews). It is not surprising then that people, including psychologists, are willing to try almost anything to lose weight.

Many Psychologists Work in Settings That Promote Weight Loss

Centers for eating disorders, weight loss, and bariatric surgery hire psychologists as counselors and researchers. Many more psychologists work in health or medical settings that may not focus specifically on weight loss but that are part of the medical model with its emphasis on reducing risk factors of all types. Thus, many psychologists work in settings that have a culture of weight loss as ideal.

The American Psychological Association (APA) has been complicit in the focus on dieting. Recent APA President Suzanne Bennett Johnson (2012), a psychologist employed by a medical school/hospital, urged the APA to shift from a primarily mental health to a health discipline, with a particular emphasis on "addressing the obesity epidemic" (p. 1).

Social psychological research on conformity indicates that people are greatly affected by the behavior and opinions of others, especially when the group members are unanimous in their opinion, the views are public, and it is desirable to be part of the group (cf. Griskevicius, Goldstein, Mortensen, Cialdini, & Kenrick, 2006). It is risky to take a stand against the norms of the work setting when performance evaluation and possibly job security are at stake. Research indicates that nonconformists may be ostracized or punished, a phenomenon that Janes and Olson (2000) have termed "jeer pressure" (p. 474).

The Success of Weight Loss Interventions Is Exaggerated

Aphramor (2010) presents examples of researchers who inflate the results of their own studies or those of others. For example, a study was cited as demonstrating "the benefit of the inclusion of commercial weight programs" when the mean weight loss over 2 years was 0.3 kg compared to the control group, which gained weight. Other studies are cited as successful when there is no mention that 68% of participants had dropped out by the end of the second month or that the experimental group regained twice the amount of weight as the control group (Aphramor, 2010). Similarly, Garner and Wooley (1991) give examples of how weight loss researchers put a positive spin on results that are quite poor.

Psychology textbooks also focus on weight loss. Even though obesity is not included in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013), abnormal psychology textbooks (e.g., Butcher, Hooley, & Mineka, 2014; Durand & Barlow, 2016; D. Sue, D. W. Sue, D. Sue, & S. Sue, 2016) often include a section on obesity in the chapter on eating disorders,

including a subheading on its treatment. Most textbook authors now admit that weight loss is not that effective but still include statements such as, "Several research trials have now demonstrated that lifestyle modification approaches yield positive benefits for patients, although the results are far from dramatic" (Butcher et al., 2014, p. 321) or "The most successful programs are professionally directed behavior modification programs, particularly if patients attend group maintenance sessions periodically in the year following initial weight reduction" (Durand & Barlow, 2016, p. 304). D. Sue et al. (2016) acknowledge that dieting may be ineffective in adults but state that it may be more successful in children. In a section entitled "Can Obesity Be Prevented in Children?" that is part of their chapter on research methodology, Beidel, Bulik, and Stanley (2017) conclude that "it would easy to conclude from this study that obesity cannot be prevented, but that would be incorrect. Although it did not produce the expected results, the research provided a number of important clues that researchers can use to develop potentially more effective prevention trials" (p. 71).

When the print news media report on the failure of weight loss studies, there is a tendency to end the report (often in the last paragraph) by urging people to try even harder or have more self-control (see Rothblum, 1999, for a review). Brodesser-Akner (2017) describes this phenomenon in her recent *New York Times Magazine* article about weight loss when she interviewed Gary Foster, chief science officer of Weight Watchers: "Back in 2011, when he was at Temple, he published a study about the efficacy of different kinds of diets. They all led to similar losses, and they all led to similar rates of recidivism. When I spoke with him back then, I asked him why we should continue dieting if the outcomes were so bad. He was concerned that I would suggest to my readers that dieting wasn't worth it. He told me that people didn't need that kind of discouragement" (p. 39).

People Are Blamed, and Blame Themselves, for Weight Loss Failures

Given the ubiquity of ads and commercials about successful diets, it is not surprising that people take personal responsibility when their own weight loss attempts fail. In social psychology, the concept of illusion of control indicates that people believe that they have control over events and assume that they are "causal agents" when in fact they are not (Lilienfeld et al., 2014, p. 360). Thus, it is not surprising that people believe that weight loss is possible if someone has "willpower."

Similarly, attribution theory focuses on how people explain the causes of behavior. Tiggemann and Rothblum (1997) found that thin women with internal attributions about weight (e.g., that they had self-control over their weight) had higher self-esteem, whereas overweight women with internal attributions had lower self-esteem. Similarly, women with internal attributions about weight were more likely to negatively stereotype obese in others.

Isn't Any Weight Loss, Even if Temporary, Good for Health?

A review of the extensive literature on weight, weight loss, and health is beyond the scope of this article. However, Aphramor (2010) has reviewed the validity of the assertion that weight loss, even if minimal, is related to improvements in health. She states that "it is not unusual to find claims of non-specific 'health benefits' which are not substantiated" (p. 2) and adds that weight loss may in fact exacerbate health problems (such as sequelae of eating disorders). This, of course, assumes that lost weight will be kept off. The major reviews of weight loss failures, cited above, also emphasize that the relationship of weight loss and health has not been demonstrated (e.g., Garner & Wooley, 1991; Kassirer & Angell, 1998; Mann et al., 2007).

People may assume that, even if their diets do not succeed in the long run, they cannot harm. This is not true. Yo-yo dieting, the typical progression of weight loss attempts, is related to heart disease and bone density loss (cf. Aphramor, 2010, for a review). The British Nutrition Foundation (cited in Aphramor, 2010, pp. 6–7) has stated that there is positive relationship "between body weight fluctuation and all-cause mortality and usually . . . with coronary mortality in particular. This finding is very robust, further confirmation is found in the British Regional Heart Study (Wannamethee & Sharper, 1990), in the Seven Nations Study (Peters et al., 1995) and in the Iowa Women's Health Study (French et al., 1997)." In the review by Mann et al. (2007), weight cycling was associated with general mortality, mortality from cardiovascular disease, myocardial infarction, stroke, diabetes, high-density lipoprotein cholesterol, higher systolic and diastolic blood pressure, and suppressed immune function.

Medical interventions, such as bariatric surgery and weight loss medications, are increasing exponentially yet are ineffective in the long run (cf. Konik & Smith, 2015, for a review). Less than half of bariatric patients lose more than 10% of their weight, and after 2 years, many people begin to regain weight (Gelinas, Delparte, Hart, & Wright, 2013). Bariatric surgery has serious side effects, which can include infections, malnutrition, pain, digestive and intestinal problems, internal bleeding, and mortality (Konik & Smith, 2015).

There are also psychological costs of restricted eating and hunger. Dieting has been associated with apathy, depression, irritability, anxiety, negative body image, and preoccupation with food (cf. Canetti, Bachar, & Berry, 2002, for a review). Restrained eaters (i.e., dieters) also eat more when anxious, depressed, or frightened (Canetti et al., 2002).

There Is a Multibillion Dollar Dieting Industry

Each year, people in the United States spend a total of $66 billion on products and services related to weight loss (Marketdata Enterprises, 2017). Many billions of dollars are spent each year in commercial weight loss programs, including those in hospitals and residential spas (Garner & Wooley, 1991). In addition, people spend billions of dollars purchasing low-calorie foods, diet sodas, artificial sweeteners, and diet cookbooks. Then there are medical and surgical procedures such as liposuction and bariatric surgery. These many industries have a lot to gain from an increased focus on weight loss. Weight loss failures only mean repeat consumers.

In their 1998 editorial in the *New England Journal of Medicine,* Kassirer and Angell (1998) wrote, "But there is a dark side to this national preoccupation. Since many people cannot lose much weight no matter how hard they try, and promptly regain whatever they do lose, the vast amounts of money spent on diet clubs, special foods, and over-the-counter remedies, estimated to be on the order of $30 billion to $50 billion yearly, is wasted. More important, failed attempts to lose weight often bring with them guilt and self-hatred" (p. 52).

Conclusion

In sum, what will it take for psychologists to stop convincing the public—and themselves—that permanent weight loss is possible? Garner and Wooley (1991) are puzzled by this contradiction between scientific proof and conventional wisdom: "Against a tradition in science which assumes that there are no treatment effects until they are demonstrated, there is an unchallenged convention by which weight loss interventions are presumed effective until there is explicit

evidence to the contrary. The reality is that we do not have effective treatment to offer, and we should be candid about this until there is reliable evidence to the contrary. To avoid confronting the failures of obesity treatment is to mislead a public desperately waiting with cash in hand for an effective treatment" (pp. 735–736).

The Health at Every Size (HAES) movement is a public health initiative that focuses on health for all people, regardless of body weight (see Bacon, 2008; Burgard, 2009, for overviews). The aims of HAES are improved nutrition and exercise rather than weight loss. HAES clinicians argue that if diets do not work in the long run, they are doing people a disservice by promoting such failure experiences. Similarly, the Centers for Disease Control and Prevention (Dollar, Berman, & Adachi-Mejia, 2017) urges providers to change the focus away from weight loss: "Providers hoping to address the obesity epidemic have few evidence-based tools or resources to draw on to effectively counsel their patients and are often left struggling with how to have this conversation about body weight in the best way. No matter what the intention, if conversations encouraging weight loss are perceived as stigmatizing or harmful, they will lead to failure, both for the patient-provider relationship and for the patient's health improvement efforts" (p. 2).

To conclude with Kassirer and Angell's (1998) exhortation to physicians: "Many Americans are sacrificing their appreciation of one of the great pleasures of life—eating—in an attempt to look like our semi-starved celebrities. Countless numbers of our daughters and increasingly many of our sons are suffering immeasurable torment in fruitless weight-loss schemes and scams, and some are losing their lives. Doctors can help the public regain a sense of proportion" (pp. 53–54).

It has been 60 years since Stunkard's quote that is reprinted at the beginning of this article. How many more years will it take for psychologists, as well as other health and mental health professionals, to stop advocating for an ineffective and unethical practice? In 1975, the American Psychological Association urged mental health professionals to "take the lead in removing the stigma that has long been associated with homosexual orientations" (Conger, 1975, p. 633). It would be just as important for psychologists to be leaders in ending the heterodox idea that permanent weight loss is possible.

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