“Everyone knows diets don’t work. All they do is stress you out.” This judgment, uttered by the inimitable Oprah Winfrey, characterizes a vast number of women’s experiences with dieting. The weight comes off initially and then seems to rebound right back, making the entire miserable experience for naught. The common perception that diets don’t work seems to be acknowledged (if not accepted) by women everywhere.

Contrast this to the world of medical research, which operates on the “calories in, calories out” principle. If one reduces the calories going into one’s body and increases the calories that are burned, the net loss in calories must necessarily lead to weight loss. To the medical world, this is biology, and biology is irrefutable. This is why a vast number of physicians recommend dieting as a treatment for obesity and why a large body of medical research exists that puts people on low-calorie restrictive diets to treat obesity.

I, along with my advisor Traci Mann and other collaborators, noticed this contradiction and decided to figure out once and for all whether calorie-restricting...
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diets actually do work. This question became particularly important because of a change in the wording in Medicare and Medicaid’s coverage manual in 2004. A simple six-word deletion of the phrase “obesity is not considered an illness” opened the door for Medicare to potentially fund treatments for obesity, one main candidate being dieting. It thus became imperative that the scientific evidence for the effectiveness of dieting be evaluated critically and systematically, and we set out to do just that.

For dieting to be a treatment for obesity, it must lead to long-term weight loss. Temporary weight loss is not a cure for obesity. In our review, therefore, we focused only on studies that placed people on diets and had at least a two-year follow-up point. We identified 31 studies that met this criterion and found that the news was not good. Overall, participants did initially tend to lose about five to ten percent of their body weight on diets, but complete weight regain occurred in the majority of participants. In fact, over two-thirds of participants gained back more weight than they lost initially on the diet. Research indicates that repeatedly losing and gaining weight (called “weight cycling” or “yo-yo dieting”) is very harmful to one’s health; therefore, the implication of our review is that women may be better off never having gone on the diet in the first place (Mann, Tomiyama, Lew, Westling, Samuels, Chatman, 2007).

Although this outlook is bleak, we had reason to believe that the news was even worse. In our review, we identified several methodological flaws in the studies that may have made the diets appear to be even more effective than they actually were. For example, in many of the studies, participants self-reported their weight over the phone or through the mail. We need look no further than any person’s driver’s license to understand the problem of underestimation when self-reporting one’s weight. As another example, these studies also had very low follow-up rates. In fact, eight of the studies had follow-up rates lower than 50%. This is a problem because people who fail at the diets and gain large amounts of weight are unlikely to report for follow-up assessments.

We therefore concluded that calorie-restricting diets are not effective, and that Medicare should not fund dieting as a treatment for obesity. The question still remains, however, of why dieting doesn’t work. This question is the basis of my dissertation, which I am con-

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ducting currently. Returning to the second half of Oprah’s quote – “All they do is stress you out” – it seems that stress might be a plausible reason why diets fail.

An extensive body of research exists showing that psychological stress can lead to weight gain, and many women would certainly say that they find dieting to be stressful. In fact, 100% of women in a focus group I conducted said that they thought dieting was stressful. I hypothesize, therefore, that dieting might be a source of psychological stress that in turn might lead to weight gain and diet failure. In my dissertation, I am testing this hypothesis by assigning women to several types of diet (or control) conditions and measuring their resulting psychological stress levels. In order to track these levels, my study will monitor two biological markers of stress called cortisol and salivary alpha amylase.

It seems irresponsible to simply say “dieting doesn’t work” without offering women an alternative solution to the obesity epidemic. Based on our review, a promising potential solution may be exercise. Studies tend to find that the participants who report the most exercise are also those that lose the most weight. Research indicates that exercise can also counteract the many negative psychological and biological effects of stress itself. In future research, therefore, I plan to balance my investigations into dieting with studies examining exercise.

I have thus far characterized the inefficacy of dieting as terrible news, but since completing this review, I actually have started to think of this as great news. Dieting is an unpleasant experience at best, and as we have very strong evidence indicating that regaining weight after dieting is the norm, I hope that women can now be free of the tyranny of dieting.

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