Should Medicare Reimburse Providers for Weight Loss Interventions?

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This issue of the American Psychologist (April 2007) includes two reviews of the literature on the effects of behavioral programs to reduce body weight. One review (T. Mann et al., 2007) concentrates on dietary interventions and finds little evidence that diets are of benefit. The second review (L. H. Powell, J. E. Calvin III, & J. E. Calvin Jr., 2007) concentrates on multicomponent interventions and reports some significant achievements of behavioral interventions. Although the reviews come to different conclusions about the value of supporting weight loss interventions, there appears to be agreement that diet alone results in little or no long-term benefit. Evidence-based multicomponent behavioral interventions or interventions that combine behavioral with medical or surgical treatments may offer better chances of long-term weight control. Evidence-based studies are needed to inform policy on provider reimbursement for weight loss programs.

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This issue of the American Psychologist offers two conflicting points of view about interventions for America’s challenging obesity epidemic. The articles by Mann, Tomiyama, Westling, Lew, Samuels, and Chapman (2007, this issue) and Powell, Calvin, and Calvin (2007, this issue) are based on systematic reviews of the literature. However, these systematic reviews come to different conclusions and suggest very different policies for the reimbursement of behavioral interventions. Before I address this conflict, it is important to highlight the growing concern about obesity in Western societies. Overweight and obesity are now considered to be one of our nation’s most challenging public health problems. The Centers for Disease Control and the National Center for Health Statistics suggest that 30% of adults 20 years or older are obese (see www.cdc.gov/nccdphp/dnpa/obesity). That figure accounts for about 60 million people in the United States. Further, the number of young people who are overweight has increased threefold since 1980. Among youths between the ages of 9 and 19, about 9 million people, or 16% of the population, are now considered overweight. There are serious risks associated with being overweight, including high blood pressure (Gus et al., 2004), high blood cholesterol (Denke, Sempos, & Grundy, 1994), Type II diabetes (Farin, Abbasi, & Reaven, 2006), coronary heart disease (Manson et al., 1990), stroke (Walker et al., 1996), gall-bladder disease (Stampfer, Maclure, Colditz, Manson, & Willett, 1992), osteoarthritis (Williams & Foulsham, 1981), sleep disorders (Millman, Carlisle, Mcgarvey, Eveloff, & Levinson, 1995), and some cancers (Chu et al., 1991). With the growing number of young people now overweight, it has been suggested that for the first time in 100 years, children in America will have shorter life expectancies than their parents (www.cdc.gov/nccdphp/dnpa/obesity).

Concern about obesity and overweight is clearly acknowledged by a variety of government agencies and private foundations. Reducing the prevalence of obesity among adults to less than 15% of the population is one of the major objectives of the Department of Health and Human Services in its goals for the year 2010 (Healthy People 2010, 2000). According to current projections, the situation is getting worse rather than better. Interventions to deal with this problem are clearly a high priority.

Although there are a variety of determinants of obesity, diets remain the most prominent plan for weight loss. Poor nutrition is thought to be the leading cause of obesity. The epidemic is blamed on use of processed foods, use of fast foods, super-sized meals, increased sugar intake, and irregular meal patterns (Centers for Disease Control and Prevention, 2006). We know, for example, that the consumption of fast food by children has increased fivefold since 1970 (Center for Prevention and Health Services, 2004). Further, Americans now eat an average of 4.2 commercially prepared meals each week, and consumption of soft drinks with sugar has doubled in the last 20 years while consumption of milk has decreased 40%. The solution to the problem appears to be straightforward: Diet must be changed. But is diet the right prescription for the obesity problem?

The article by Mann et al. (2007) systematically considers the value of diets. The results are quite troubling. When subjects are followed over the course of time, most regain any weight they have lost. Further, between one third and two thirds of the dieters regain more weight than they lost. It has been suggested that “yo-yo” effects of diets, in which subjects go through cycles of weight loss and weight gain, may have serious metabolic consequences.
(Lissner et al., 1991). As noted in the article by Mann et al., repeated cycles of weight gain and weight loss might increase the risk of heart attacks, stroke, diabetes, high cholesterol, and high blood pressure. The behavioral medicine and nutrition communities have actively promoted diets as a mechanism to reduce the burden of heart disease, cancer, and other chronic diseases. However, the recent publication of the dietary intervention results from the Women’s Health Initiative raises some concerns. In this largest clinical trial of women ever conducted, there was a significant reduction in dietary fat (Howard et al., 2006) but no health benefit in terms of reductions in heart disease (Howard et al., 2006), breast cancer (Prentice et al., 2006), or colon cancers (Beresford et al., 2006). As a result of these concerns, Mann and colleagues (2007) challenge the benefit of dieting and suggest that the Medicare program may have insufficient evidence to recommend reimbursement for providers who use dieting to control obesity.

The contrasting position, described in the article by Powell et al. (2007), argues that there is sufficient evidence for Medicare to reimburse providers for weight loss interventions. In their systematic review of randomized clinical trials on weight loss interventions, Powell et al. (2007) summarize nine lifestyle trials, five medication trials, and two surgical trials. Their review considers high-quality studies and evaluates weight loss that has been maintained for two years or more. There is some evidence that surgical intervention has value for people who are morbidly obese. Medicine and lifestyle changes, according to the review, also produce moderate but significant benefits. In addition, the benefits go beyond the loss of weight. On average, the medication and lifestyle interventions result in about seven pounds of weight loss. Even this relatively small amount of weight change translates into benefits in terms of blood sugar, blood pressure, and serum LDL cholesterol. On the basis of the Powell et al. (2007) review, one would conclude that Medicare should pay providers for the treatment of obesity.

How might one reconcile these different points of view? Can there be common ground between these two systematic reviews of the literature? In order to address this issue, one must look carefully at the studies included in each review. Mann and colleagues (2007) focus on studies of dieting. Powell et al. (2007) look more broadly at interventions for weight loss. Both reviews consider the long-term benefits of treatment. The Mann et al. review persuasively argues that dieting will not produce the desired long-term effects on weight, metabolism, or health outcomes. The Powell et al. article offers no real evidence to contradict Mann et al. Conversely, the Powell et al. review offers a much more positive view of behavioral and lifestyle interventions that include multiple components. These interventions often include diet and exercise programs delivered by experienced health professionals using established behavioral intervention techniques. These techniques include self-monitoring, modeling, principles of reinforcement, and cognitive-behavior modification. Powell et al. refer to dietary interventions as “early and outmoded lifestyle interventions” (p. 242). Because Mann and colleagues do not review interventions with multiple behavioral components, they offer essentially no evidence to refute Powell et al. In fact, Mann and colleagues argue that more attention should be devoted to studies examining diet and exercise combinations.

It may be that both groups of authors are correct. The reason is that the reviews simply do not consider the same evidence. Some of the same studies are included in both reviews. In particular, the Mann et al. (2007) section on control group studies includes many of the same references as the Powell et al. (2007) section on lifestyle interventions. However, Mann et al. focus only on the components of studies evaluating diet alone. Powell et al. concentrate on whether multifaceted lifestyle interventions are valuable. Mann et al. dismiss the benefits of interventions that include several components because they do not support the independent effects of diet.

Methodology and subject selection in trials of interventions for obesity do make a difference (Patel, Donahue, Wilson, & Califf, 2006). In defense of Mann and colleagues (2007), there is little evidence that advice for caloric restriction alone will have any lasting impact. Yet caloric restriction and dieting remain the primary intervention in practice. In defense of Powell et al. (2007), dieting alone appears to be the wrong solution. There is growing evidence that other interventions, including multicomponent lifestyle change, surgery, or medicine, may have benefit. By classifying obesity as an illness, Medicare opened the door to reimbursing providers for weight loss intervention. I hope these two reviews illuminate the need for future research and offer some guidance to inform the policy debate.
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