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## The Role of Commercial Weight-Loss Programs

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Obesity is a leading health problem in the United States because of its high prevalence and role in many chronic conditions (1). More than one third of U.S. adults are obese, and direct health care costs associated with obesity were estimated at \$147 billion in 2008 (2). In 2012, the U.S. Preventive Services Task Force (USPSTF) recommended that clinicians screen all adults for obesity and offer or refer patients with a body mass index of 30 kg/m<sup>2</sup> or greater to intensive, multi-component behavioral interventions (3). A recent joint guideline from the American Heart Association, the American College of Cardiology, and The Obesity Society reinforced the USPSTF recommendations (1). Unfortunately, far more resources are spent on managing obesity's complications than on treating the condition itself. Given that the Patient Protection and Affordable Care Act requires coverage for obesity screening, discussions about weight control will hopefully occur more frequently in clinical settings.

Despite recent advances in pharmacologic and surgical treatment of obesity, improving diet and physical activity level remain the cornerstones of obesity treatment. Unfortunately, few effective behavioral treatments are available in practice, and clinicians often lack the expertise or resources to provide intensive behavioral counseling directly. The lack of adequate reimbursement further impedes access to intensive clinical behavioral interventions. Effective commercial weight-loss programs could fill this void.

In this issue, Gudzone and colleagues reviewed the evidence on the efficacy of commercial weight-loss programs that focused on nutrition and incorporated behavioral counseling or social support components, regardless of whether physical activity was emphasized (4). Of the 32 programs they identified, they found clinical trial data on only 11, and a minority of the 45 relevant trials lasted 12 months or longer. Participants in Weight Watchers and Jenny Craig lost 2.6% and 4.9% more weight, respectively, than control participants at 12 months. Weight Watchers had higher attrition rates, especially in the control groups, raising concern about the internal validity of the findings. Three studies reported similarly modest weight loss with Nutrisystem, but these studies lasted only 3 to 6 months. Studies showed that very-low-calorie programs, which included high-protein shakes, seemed effective in the short term, but few of these studies had data at 12 months or beyond. Studies on Health Management Resources (HMR) showed the largest weight losses (8% to 22% of initial weight at 3 months), whereas Medifast, OPTIFAST, and SlimFast resulted in substantially less weight loss (approximately 5%). Studies of HMR had relatively low attrition rates

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compared with higher or unreported rates in studies of other programs. However, HMR was associated with a 6.3% risk for biliary complications. The review also evaluated clinical trials of self-directed programs and found that, like many of the studies on very-low-calorie programs, attrition was high. The most commonly studied self-directed programs—Atkins and SlimFast—both resulted in negligible to modest weight loss. Three randomized trials evaluating Internet-based programs (The Biggest Loser Club, eDiets, and Lose It!) found them to be ineffective. Given the evidence, the authors concluded that clinicians could consider referring patients who were overweight or obese to Weight Watchers or Jenny Craig. Nutrisystem holds promise if longer-term weight loss can be documented in future studies.

Gudzune and colleagues' review highlights something that researchers in the behavioral weight management field have known for decades: Structure and intensity of contact are highly correlated with program success (1, 5–8). It is unsurprising that highly structured programs with in-person social support, such as Weight Watchers and Jenny Craig, seem more effective in the long term than less structured interventions. Nevertheless, even with such programs, weight loss is modest and likely below patients' expectations (9, 10). One study of primary care patients found that obese patients believed that they would need to lose an average of 11% of their initial weight to derive any health benefit (9). Unrealistic expectations may affect patients' willingness to adhere to and pay for these programs. Programs that help patients restrict calories with a structured approach to making healthier, real-world dietary choices, such as Weight Watchers, may fare better over the long term than programs that rely solely on prepackaged meals or supplements, but this would need to be confirmed in future studies.

One challenge that clinicians face in evaluating and applying results from behavioral weight loss intervention studies is that these data often do not reflect what actually happens in practice. The crux of weight control is limiting caloric intake, and individual patients may respond differently to different structured approaches. Current clinical trials impose the artificial constraint of enrolling patients in a single intervention in an optimal context, which may overestimate effectiveness. On the other hand, patients in these trials who do not respond well to the study intervention do not have the opportunity to try different approaches or switch programs as they would in real-world settings, thereby artificially inflating program costs. These studies also rarely leverage the physician-patient relationship. Although earlier studies have suggested limited effectiveness of physician counseling about weight when it is done in isolation (7, 8), physicians can potentially play an important role. For example, they can encourage adherence to lifestyle changes by making the link between modest weight loss and health benefits and providing behavioral reinforcement in partnership with a structured behavioral program. Wadden and associates (5) recently found that brief (5 to 7 minutes) physician counseling about weight on a quarterly basis, combined with monthly health coaching lasting 10 to 15 minutes by auxiliary staff, such as a medical assistant, produced weight losses of 3.5% at 12 months and 3.0% at 24 months. Unfortunately, there was no true no-treatment comparison group because the usual care group received the same quarterly physician counseling, which produced weight losses of 2.3% and 1.7%, respectively. It would be interesting to see how commercial programs fare when partnered with regular, brief physician reinforcement.

In summary, a few popular commercial weight-loss programs, including Weight Watchers and Jenny Craig, show promise in facilitating modest weight loss in overweight or obese patients. However, most available commercial programs have not been rigorously evaluated, and much remains unknown about the long-term outcomes, even for programs for which there are data. Whether patients value the modest weight loss produced by these programs enough to absorb the financial cost and sustain behavioral change is also unclear. Future research should evaluate whether partnering physician counseling with these programs improves effectiveness.

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