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# Study shows regular behavioral counseling leads to clinically significant weight loss

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Intensive behavioral therapy (IBT), which provides diet and physical activity counseling, is proven to help adults with obesity achieve meaningful weight loss in six to 12 months. A new Penn Medicine study, published today in *Obesity*, the journal of the Obesity Society, is the first randomized controlled evaluation of the efficacy of IBT when implemented under the Centers for Medicare and Medicaid Services (CMS) coverage guidelines. The trial, led by Tom Wadden, Ph.D., a professor of Psychology in Psychiatry, and Jena Tronieri, Ph.D., an assistant professor of Psychology in Psychiatry, both in the Perelman School of Medicine at the University of Pennsylvania, showed that patients who received IBT lost an average of 6.1 percent of their initial body weight at one year.

Nearly 40 percent of adults in the United States were obese in 2015 and 2016, according to recently released figures from the Centers for Disease Control and Prevention (CDC). Medicare beneficiaries with obesity—defined by a body mass index (BMI) of 30 kg/m2 or greater—are eligible to receive IBT from a qualified health professional in a primary care setting. CMS covers weekly counseling visits for the first month, and then sessions every other week for the next five months. Patients who lose 3 kilograms (6.6 pounds) or more are eligible for six additional monthly sessions. Most private health insurers offer more limited coverage—if any at all—of IBT for obesity.

"Intensive behavioral counseling is a proven method for helping people modify their eating and physical activity habits and achieve significant

weight loss," Wadden said. "We hope the findings from our study will encourage broader use of behavioral weight loss counseling under the CMS benefit and in other primary care settings."

In the study, 150 participants with obesity were randomly assigned to one of three treatment groups—each provided distinct, one-year intervention regimens. Participants in each group received 21, individual IBT counseling sessions, as provided under the CMS coverage guidelines. In group one, participants were counseled by a physician, nurse practitioner or registered dietitian, and were instructed to consume a diet of 1200 to 1800 calories a day (based on their body weight) and to gradually increase their physical activity to 225 minutes per week. In addition to the IBT, participants in the second group received liraglutide 3.0 mg, a medication approved by the U.S. Food and Drug Administration for chronic weight management. Participants in the third group received the IBT counseling, liraglutide, and a prescription for 12 weeks of daily meal replacements.

The study showed that 44 percent of the participants in the first group—those who received IBT alone—lost 5 percent or more of baseline body weight, a measure of clinically meaningful weight loss. More than 70 percent of the participants in both the second and third groups lost 5 percent or more of their baseline body weight, with an average loss of 11.5 percent and 11.8 percent of baseline weight, respectively. The significant weight loss experienced by participants who received liraglutide, in addition to IBT, is consistent with previous studies of existing weight loss medications. All three interventions also were associated with improvements in average systolic and diastolic blood pressure, waist circumference, triglycerides, symptoms of depression and other cardiovascular risk factors.

Liraglutide appears to induce weight loss, in part, by decreasing hunger and increasing the feeling of fullness after eating, according to additional

data presented by Tronieri at Obesity Week, an international conference held in Nashville, Tennessee, this week. Tronieri studied a subset of patients in the larger trial and found that participants who received IBT-liraglutide, compared with IBT-alone, reported significantly greater reductions in hunger and preoccupation with food during the first 24 weeks. Tronieri's study found no significant differences between the two groups in reported appetite control at weeks 40 or 52, though IBT-liraglutide participants still maintained nearly double the weight loss.

The IBT study also revealed that participants treated by a physician or nurse practitioner lost comparable amounts of weight to the participants treated by a registered dietitian, underscoring the feasibility of educating primary care practitioners to provide this kind of therapy.

"We encourage CMS to expand the scope of practitioners who are eligible to provide IBT independently, which is currently limited to physicians, nurse practitioners, physician assistants and nurse specialists," Tronieri said. "Registered dietitians, health counselors and nursing assistants can be trained to effectively deliver IBT, which would help expand access to this critical intervention and, ultimately, help the many Americans who struggle with obesity and its associated health complications."

Wadden and Tronieri, along with their colleagues at Penn's Center for Weight and Eating Disorders, where the study was conducted, believe their findings need to be replicated in a larger sample of participants who are treated in primary care practices—rather than in a specialized weight management clinic like Penn's.

"As we move forward, we need to assess the effectiveness and cost of providing IBT in person, versus delivering it via a digital platform—like a mobile app or online patient portal," Wadden said. "Millions of Americans could benefit from IBT, and we need to find low-cost,

effective ways of getting it to them."

**More information:** Thomas A. Wadden et al, Intensive Behavioral Therapy for Obesity Combined with Liraglutide 3.0 mg: A Randomized Controlled Trial, *Obesity* (2018). DOI: 10.1002/oby.22359