ABSTRACT · OBESITYWEEK 2026

One-Year Weight Loss Among Patients With BMI ≥50 kg/m² Receiving GLP-1 Treatment via Telehealth

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ABSTRACT

Background

Patients with severe obesity face greater health risks, including increased morbidity and premature mortality. In-person care may be less accessible for these patients because of physical limitations, logistical barriers, and weight bias. This study examined 1-year weight loss outcomes among patients with BMI ≥50 kg/m² who received GLP-1 pharmacotherapy through Ro, a direct-to-patient (DTP) telehealth platform.

Methods

A sample of 500 patients were randomly selected for this retrospective observational cohort study, all of whom initiated GLP-1 pharmacotherapy through a DTP telehealth platform. Eligible patients did not have type 2 diabetes or prior bariatric surgery, received either branded injectable semaglutide, tirzepatide, or switched among the two while maintaining a continuous telehealth engagement for 1 year and provided a follow-up, self-reported weight and height measurement at day 365 (±30) after treatment initiation. We used paired t-tests to assess absolute change in weight and BMI from baseline to 1 year. We also assessed percent change in weight and the follow-up distribution of BMI category.

Results

Overall, mean age was 40.4 years (SD 10.6), 65.4% were female, and median baseline BMI was 53.8 kg/m² (IQR 51.5, 57.2). Over the study period, a majority (78.6%) were consistently on tirzepatide, while 6.6% were consistently on injectable semaglutide; 14.8% switched between the two. At year 1, mean weight decreased from 158.9 kg (SD 24.1) to 128.5 kg (SD 26.7), with a mean absolute change of −30.5 kg (95% CI: −31.8 to −29.2; $p<0.001$) corresponding to a mean percent reduction of 19.4% (SD 9.1%). Median BMI decreased to 43.9 kg/m² (IQR 40.2, 48.5) with a mean absolute change of −10.7 kg/m² (95% CI: −11.1 to −10.2; $p<0.001$). At 12 months, 17.2% of patients had a BMI ≥50 kg/m², 59.6% of patients had a BMI 40–49 kg/m², 17.4% had a BMI 35–39 kg/m², 5.4% had a BMI 30–34 kg/m², and 0.4% had a BMI <30 kg/m².

Conclusions

GLP-1 pharmacotherapy through a DTP telehealth platform achieved clinically meaningful weight loss and reductions in BMI at 1 year in patients with a BMI ≥50 kg/m². Despite significant weight loss, almost 4 out of 5 individuals had a follow-up BMI of ≥40 kg/m², highlighting the need for additional multidisciplinary treatment options, including bariatric surgery or emerging higher-efficacy pharmacotherapies, for greater weight reduction in this population. Nonetheless, the demonstrated efficacy of GLP-1 pharmacotherapy in this study indicates that available treatments may be valuable options for patients with severe obesity prior to, or following, other interventions.

POSTER

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Affiliation

Authors Smith, Manalac, Broffman, and Chai are current employees of Roman Health Ventures, the telehealth platform that supplied data for this study. Dr. Iyengar is an employee of Roman Pennsylvania Medical, P.C., Dr. Albaugh and Schauer are faculty members at the Metamor Institute at Pennington Biomedical Research Center. Dr. Tchang is a faculty member at Weill Cornell Medical College at Cornell University

References

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Key Findings

19.4%
Average 1 Year Weight Loss Among Patients With BMI ≥50 kg/m²

Despite significant weight loss
Almost 4 out of 5
had a follow-up BMI of ≥40 kg/m²

As one of the first studies in patients with BMI ≥50 kg/m², this study highlights the need for multidisciplinary approaches, including bariatric surgery and emerging higher-efficacy pharmacotherapies, to achieve greater weight reduction.

Results

- Sample characteristics are presented in Table 1
- Over the study period, a majority (78.6%) were consistently on tirzepatide, while 6.6% were consistently on injectable semaglutide; 14.8% switched between the two.
- At year 1, mean weight decreased from 158.9 kg (SD 24.1) to 128.5 kg (SD 26.7), corresponding to a mean reduction of 19.4% (SD 9.1%).
- Median BMI decreased to 43.9 kg/m² (IQR 40.2, 48.5) with a mean absolute change of −10.7 kg/m² (95% CI: −11.1 to −10.2; p<0.001).
- At 12 months, 17.2% of patients had a BMI ≥50 kg/m², 59.6% of patients had a BMI 40-49 kg/m², 17.4% had a BMI 35-39 kg/m², 5.4% had a BMI 30-34 kg/m², and 0.4% had a BMI <30 kg/m².

Table 1. Patient Characteristics

Baseline Characteristics of Participants With BMI ≥50

Characteristic	N = 500
Age, years	40.4 (10.6)
Age group	
<30	71 (14.2%)
30–39	193 (38.6%)
40–49	128 (25.6%)
50–59	86 (17.2%)
≥60	22 (4.4%)
Sex	
Female	327 (65.4%)
Male	173 (34.6%)
US region	
Midwest	118 (23.6%)
Northeast	128 (25.6%)
South	156 (31.2%)
West	98 (19.6%)
Baseline weight, kg	158.9 (24.1)
Baseline BMI, kg/m²	53.8 (51.5, 57.2)
Baseline BMI category	
50–54.9	324 (64.8%)
55–59.9	104 (20.8%)
≥60	72 (14.4%)
GLP-1 medication through Year One	
Zepbound only	393 (78.6%)
Wegovy only	33 (6.6%)
Both	74 (14.8%)
Obesity-related complications	
Hypertension	124 (24.8%)
Prediabetes	102 (20.4%)
Obstructive sleep apnea	68 (13.6%)
Lipid disorder	56 (11.2%)
Osteoarthritis	19 (3.8%)
GERD	60 (12.0%)
MASLD	17 (3.4%)

Values are n (%), mean (SD), or median (IQR). GLP-1, glucagon-like peptide-1; GERD, gastroesophageal reflux disease; MASLD, metabolic dysfunction-associated steatotic liver disease.

Figure 1. BMI Category Following 1 Year of Treatment

