

**Weight Loss for Doctors Only
January 2021
Research Study**

Demographics

We collected intake and exit surveys from women in the Weight Loss for Doctor’s Only (WLDO) January 2021 cohort. There were 126 clients who consented to participate in the study and filled out an intake survey. Of the cohort, 64/126 (50.8%) returned completed exit survey data. Their demographics are in **Table 1**.

First, we wanted to establish that whether clients who returned exit surveys differed significantly in their baseline characteristics from those who did not complete the exit survey.

Table 1 – Demographic Characteristics of the entire cohort (n=126)

	Participants with Complete Data (n=64) (Mean ± Std Dev)	Participants with missing exit data (n=62) (Mean ± Std Dev)	p value
Age (years)	42.34 ± 6.96	42.28 ± 7.25	>0.05
BMI	30.43 ± 5.68	29.93 ± 4.86	>0.05
Weight (pounds)	188.54 ± 38.36	180.88 ± 35.05	>0.05
Goal Weight (pounds)	144.02 ± 18.56	138.55 ± 16.05	>0.05
Diff Weight-Goal Weight (pounds)	43.93 ± 27.44	42.33 ± 26.14	>0.05
Waist (inches)	38.49 ± 6.23	37.66 ± 5.15	>0.05
PSS4 score	7.02 ± 2.80	7.07 ± 2.68	>0.05
Initial Race	N	N	
White	57	48	
Black or African American	0	2	
Asian	5	6	
Hispanic	1	1	
American Indian or Alaska Native	0	1	
Multiracial	1	0	

Results

- The baseline characteristics of the group who returned both intake and exit surveys revealed an average age of 42 years, Body Mass Index (BMI) of 30.8, weight 188 pounds and waist circumference of 38 inches. Clients reported an average goal weight of 144 pounds on their intake survey and their average weight loss goal for the program was 44 pounds. Most clients were white (87%), with Asian clients making up 9%, and other ethnicities accounting for 4% of the client population.
- There were no differences in any parameters collected between the two groups.

Clients' Weight Loss

Table 2: Change in Body Characteristics

	Participants Initial data (Mean ± Std Dev)	Participants exit data (Mean ± Std Dev)	p value
BMI	30.91 ± 6.41	27.70 +/- 5.06	1.51 E-15
BMI change	3.12 ± 2.39 (range -1.19 to 12.02)		
Weight (pounds)	188.54 ± 38.36	169.16 +/- 30.54	1.19 E-15
Weight change	19.04 ± 14.52 (range -6.30 to 70.00)		
Waist (inches)	38.49 ± 6.23	34.81 +/- 5.41	2.00 E-15
Waist change	3.63 ± 2.77 (-5 to 12)		

Table 3: Weight Lost

	Mean ± Std Dev	Median	Range
Percentage of body weight lost	9.64 ± 5.70	9.35	-3.33 to 23.10
% of participants who lost ≥ 5% of body weight, % (n)	80% (51 of 64) with complete data 40.5% (51 of 126) from total sample (no exit)		
% of participants with an initial waist of less than 88cm (34.65 inches), % (n)	31.3% (20 of 64) with complete data		
% of participants with a final waist of less than 88cm (34.65 inches), % (n)	56.25% (36 of 64) with complete data		

Figure 1: Initial Weight versus the amount of weight lost

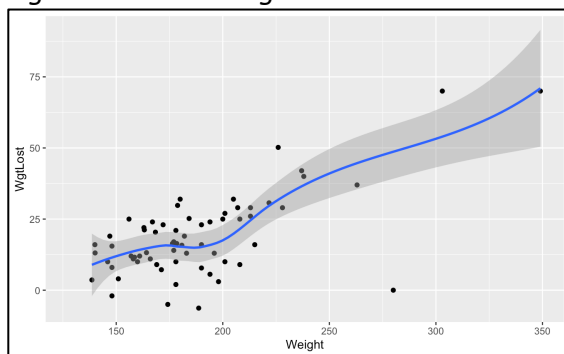
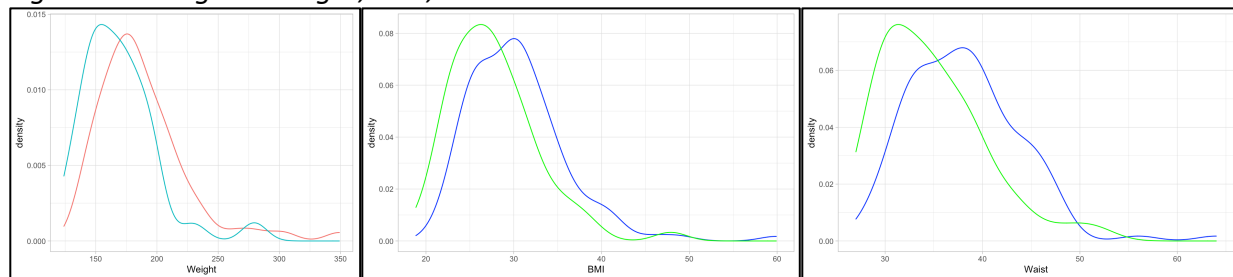


Figure 2: Change in Weight, BMI, and Waist



Results:

- These data show that clients on average dropped 3 points in BMI and 19 pounds during the first six months of the WLDO program. The change in waist circumference on average was 3.6 inches. All changes were statistically significant differences by paired t-tests.
- On average, clients who completed both surveys lost 9.6% of body weight.
- **80% of WLDO clients lost 5% or more of body weight.**

Comparison Data in the medical literature

- Lifestyle interventions (diet & exercise) result in an average of 5% body weight loss over one year.
- Weight loss surgery (gastric bypass & gastric sleeve) results in an average of 30% body weight loss after one year.
 - Weight loss surgery is indicated for BMI >40 without comorbidities, BMI>35 with one serious comorbidity or BMI >30 and uncontrolled Type II DM or metabolic syndrome.
 - Early complications of surgery include surgical leak, infection, hemorrhage, pulmonary embolism, heart attacks. Serious complication rates are low at 3-5% . The risk of dying within 30 days of surgery is less than 1%.
 - Late complications for gastric bypass include ulcers, narrowing of the surgical site, gallstones, hernias, small bowel obstructions, metabolic and nutritional derangements and fistulas between the gastric pouch and native stomach that can lead to weight regain. Late complications after sleeve gastrectomy include bleeding, ulceration, narrowing and acid reflux. The risk of reoperation after bariatric surgery is 5-22%.
 - The average cost of gastric bypass surgery is \$23,000 and sleeve gastrectomy is \$14,900. Insurance coverage typically requires BMI >35 with comorbidities (**).
- Drugs: Semaglutide, a GLP1 agonist, is considered first-line therapy for medical weight loss. In the clinical trials for obesity, participants lost 12% of body weight on average after 6 months of therapy. 86% of subjects receiving Semaglutide vs 32% on placebo lost more than 5% body weight by the conclusion of the trial (68 weeks).
 - Participants in both Semaglutide and placebo arm received a lifestyle intervention.
 - Baseline characteristics of study participants included mean age 46 years, 75% women, 75% Caucasian, mean BMI 38, weight 232 lbs.

- Side effects of Semaglutide are common and include nausea, vomiting and diarrhea. In animals, Semaglutide increased risk of thyroid cancers. The medication is not recommended during pregnancy, in patients with personal or family history of certain thyroid cancers or history of pancreatitis. Severe hypersensitivity reactions can occur.
- Semaglutide costs about \$1600/month and most insurers are not covering this for the indication of obesity at this time.
- The optimal length of treatment for Semaglutide has not been studied, nor is it known whether patients regain weight after stopping Semaglutide.

Self-Rated Health

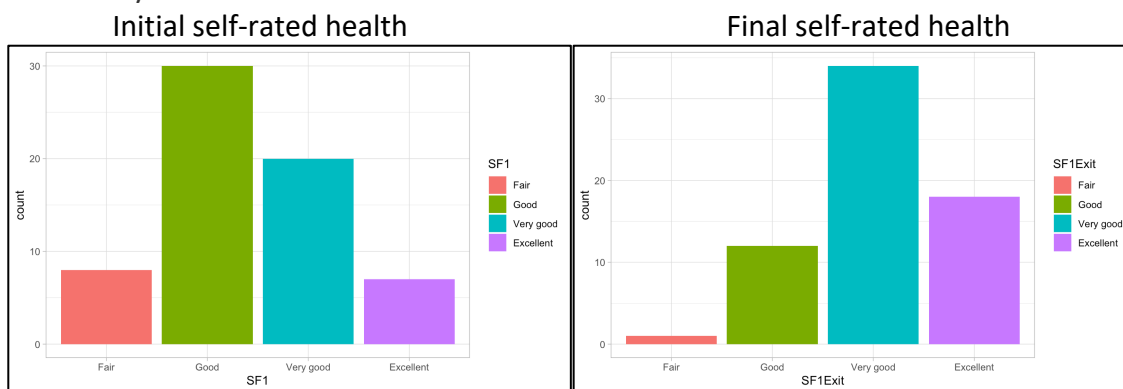
The Self Rated Health score (SF-1) asks respondents to rate their health as excellent, very good, good, fair, or poor. The SF-1 is associated with risk of dying, such that subjects with poor health on SF-1 are twice as likely to die as subjects with self-reported excellent health.

Table 4: Change in Self Rated Health Status

	Initial % (n)	Exit % (n)
Excellent	10.6	27.3
Very Good	30.3	51.5
Good	47.1	19.7
Fair	12.1	1.5
Poor	0	0

Results:

- In the WLDO cohort, 41% of clients reported very good or excellent health at intake, while this increased to 79% of clients at exit, among those who had completed both intake and exit surveys.



Perceived Stress

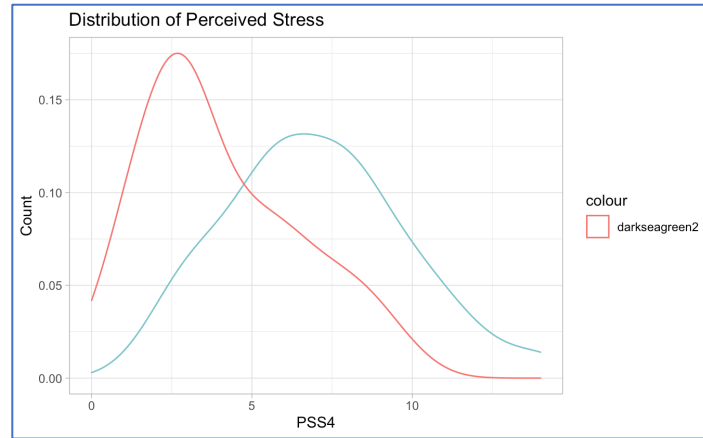
The Perceived Stress Score (PSS) is a reliable psychological questionnaire that measures a person's assessment of the degree to which situations over the past month have been stressful. A PSS-4 score of 0 represents the lowest and 16 the highest perceived stress.

Table 5: Change in Perceived Stress

	Initial			Exit		
	Mean ± Std Dev	Median	Range	Mean ± Std Dev	Median	Range
Score	7.01 ± 2.79	7	2-14	4.08 ± 2.45	3	0-10

Results:

- Subjects with both intake and exit data had moderate perceived stress on intake (mean score = 7) and this was significantly reduced upon exit (mean score = 4).



Special note about diet medications:

One participant (121) was on Vyvanse, considered a weight loss medication at the time of completing the intake survey.

In summary, among participants in the WLDO January 2021 cohort who returned intake and exit surveys, there was a significant change in measured parameters from the start to the finish of the WLDO program. Demographics of this group, show that clients are, on average, in their 40s. They have a BMI of around 30 and are predominantly white female physicians. Clients lost 3 points from BMI (19 pounds), on average. Notably, 80% lost more than 5% of bodyweight. Moreover, clients reported significant improvements in self-reported health and reduced perceived stress scores.