

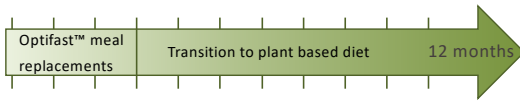


# Participation in A Community Based Weight Loss Program Showed Significant Improvement in Patient Reported Outcomes Of Their Mental and Physical Health



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## Introduction



- Over 650 patients have participated to date.
- 65% of participants achieve >10% total body weight loss (TBWL)<sup>1</sup>.
- The 12-item short-form (SF-12) survey is a validated survey to assess physical and mental components of health.<sup>2,3</sup>

## Methods

- Patients completed the SF-12 survey at the time of enrollment and after at least 3 months.
- 58 participants were retrospectively identified who had two surveys at least 3 months apart.
- We performed separate paired t-tests, and ANCOVAs on mental component score (MCS), physical component score (PCS) and total scores

## Results

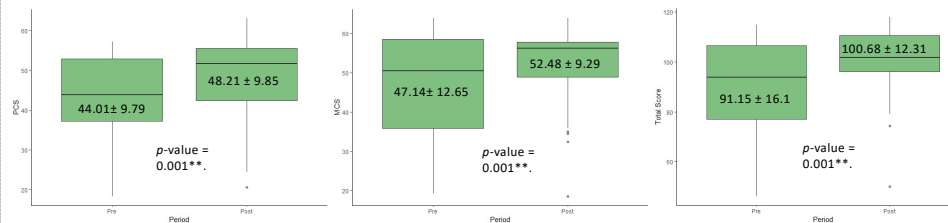
Variable	Statistic
Age (Years)	56
Sex (% Female)	82.76
Baseline BMI (kg/m <sup>2</sup> )	38.8
Baseline Weight (Lbs)	234
Weight at 2nd Survey (Lbs)	204
Weight Loss (Lbs)	30
Percent Weight Loss (%)	13
Percent > 10% weight loss	68.97

**Table 1.** Descriptive statistics of patient age, sex, starting BMI, starting weight, weight at 2<sup>nd</sup> survey, percent weight loss and the percent that achieved >10 % weight loss

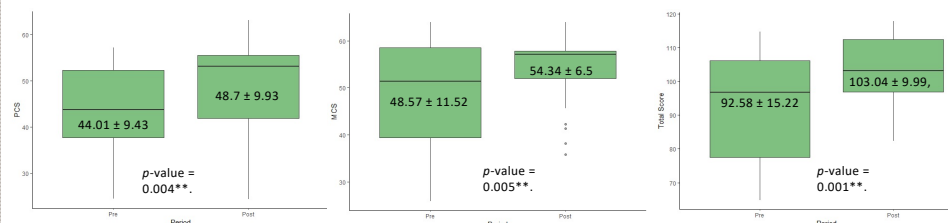
Response variable	Model term	Estimate	SE	t-statistic	p-value
Post physical component score (PCS)	(Intercept)	20.489	5.146	3.982	<0.001***
	Goal status	1.461	2.208	0.662	0.511
Post mental component score (MCS)	Pre PCS	0.608	0.108	5.625	<0.001***
	(Intercept)	33.805	4.154	8.139	<0.001***
Post total score	Goals status	3.768	2.237	1.685	0.098
	Pre MCS	0.344	0.085	4.056	<0.001***
Post total score	(Intercept)	58.437	7.643	7.646	<0.001***
	Goal Status	4.678	2.761	1.694	0.096
	Pre total score	0.43	0.082	5.226	<0.001***

**Table 2.** Results from separate ANCOVAs performed on Post PCS, Post MCS, and Post Total score as a function of whether the weight loss goal was met after controlling for initial PCS, MCS, and total score, respectively.

**Figure 1.** Distribution of physical component score, mental component score and total score by period.



**Figure 2.** Distribution of physical component score, mental component score and total score by period of those who met the 10% TBWL goal



## Discussion

- Participation in a weekly support group focused on education about diet, sleep optimization, exercise and teaching mediation techniques was associated with improved SF-12 scores independent of achieving a 10% body weight loss.
- This suggests that focused education about the four pillars of wellness may improve SF-12 scores independent of weight loss.
- Future research is being aimed at the potential benefits of a community based weight loss program in terms of reversal of fatty liver disease, metabolic syndrome and improvement of quality of life.

## References

- 1.) Hawa F, Gunaratnam NT. Establishing an Effective Weight Loss Program in a Community-Based Gastroenterology Practice: The Huron Gastro Experience. *Clin Gastroenterol Hepatol.* 08 2019;17(9):1669-1672. doi:10.1016/j.cgh.2019.02.036
- 2.) Ware J, Kosinski M, Keller SD. A 12-Item Short-Form Health Survey: construction of scales and preliminary tests of reliability and validity. *Med Care.* Mar 1996;34(3):220-33. doi:10.1097/00005650-199603000-00003
- 3.) Jenkinson C, Layte R, Jenkinson D, et al. A shorter form health survey: can the SF-12 replicate results from the SF-36 in longitudinal studies? *J Public Health Med.* Jun 1997;19(2):179-86. doi:10.1093/oxfordjournals.pubmed.a024606