

Weight Loss Trends Among Obese Infertility Patients

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Background

- Rates of obesity and infertility have steadily increased in the United States
- There is a well-documented correlation between obesity and infertility with many proposed mechanisms
- Interventions include diet/exercise, medication and surgical intervention

Objectives

Primary outcome

- To understand the trends in weight loss in obese patients pursuing infertility treatment

Secondary outcomes

- Prevalence of weight loss counseling

Methods

- Retrospective chart review between 1/1/2020 – 12/29/2022
- Patients were followed from initial visit through first ongoing pregnancy or final clinic visit

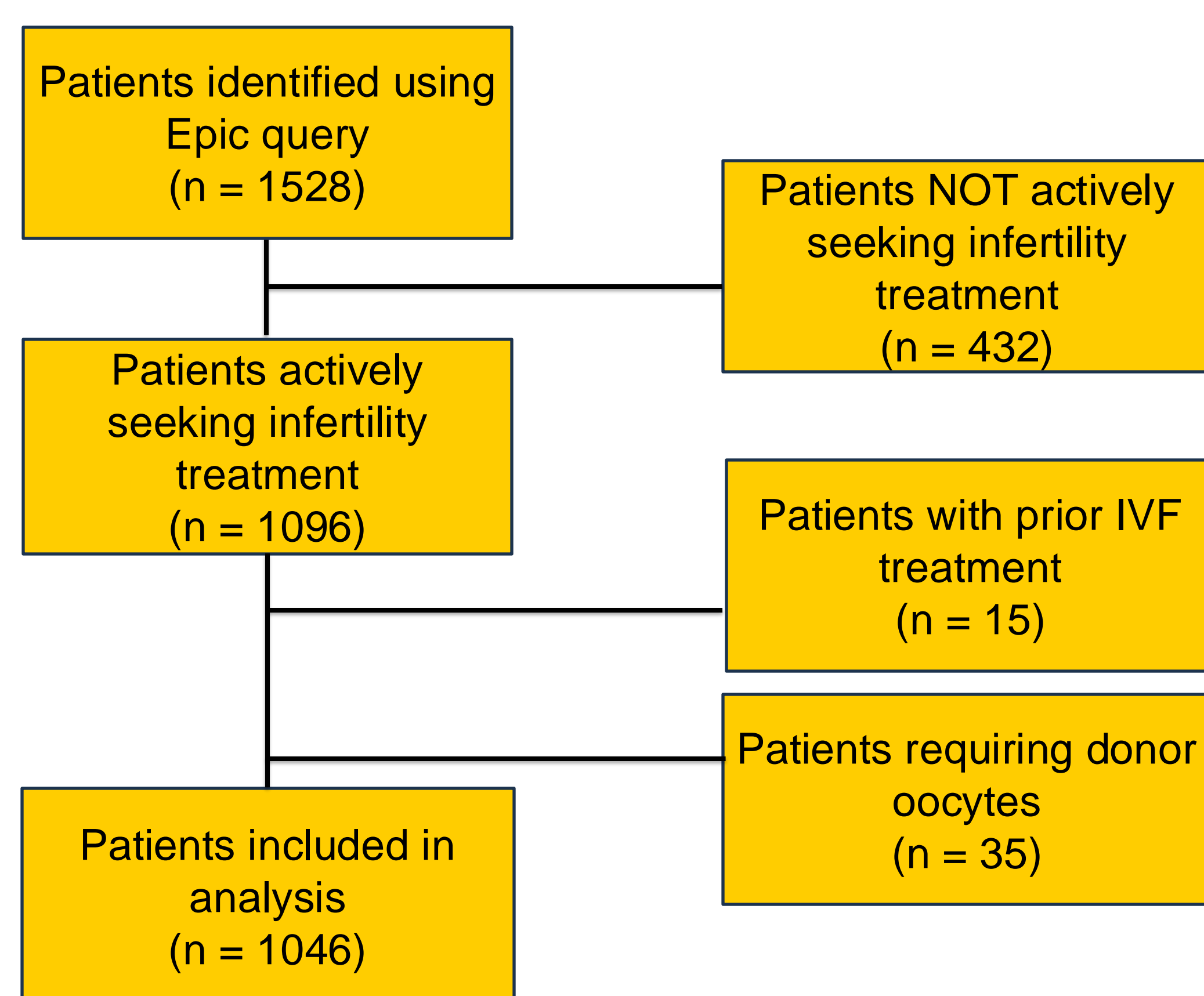
Inclusion criteria

- “New Infertility Patients” in all three REI clinic locations
- BMI ≥ 30
- Actively seeking infertility treatment

Exclusion criteria

- Previously pursued IVF treatment
- Requiring donor oocytes

Figure 1.



Results

Figure 2.

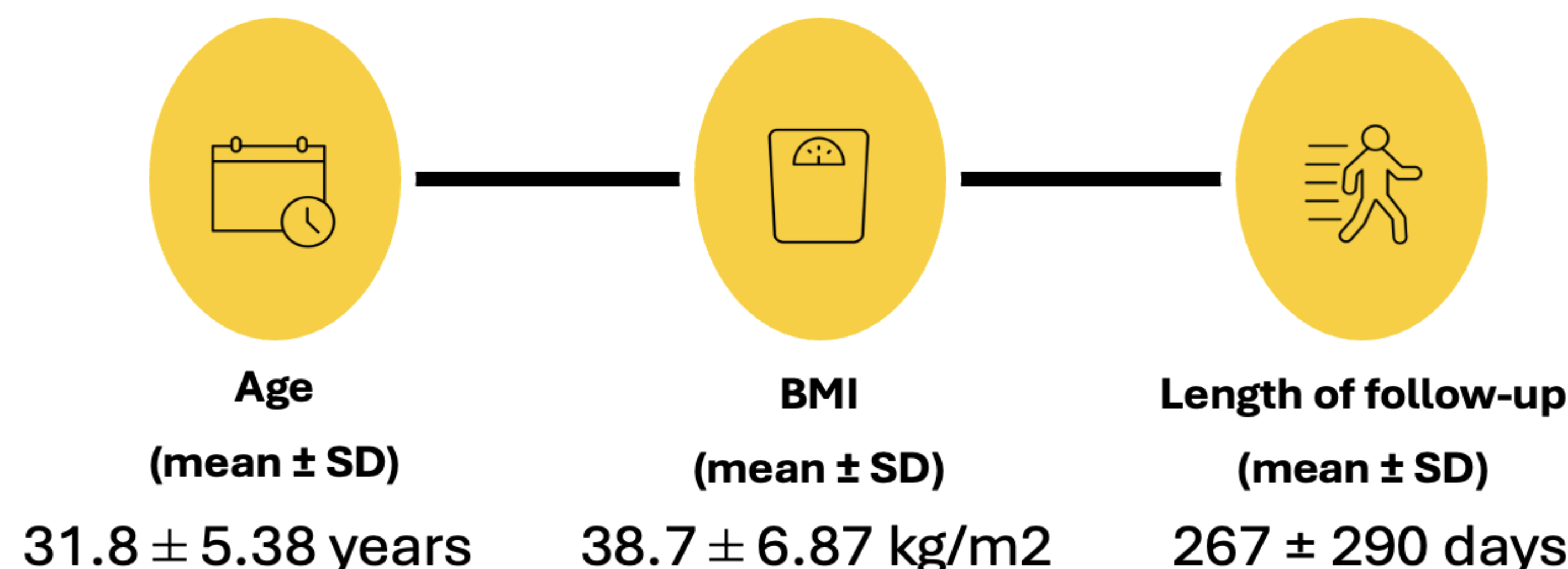


Table 1.

BMI Category	30-34.99	35-39.99	40-44.99	45-49.99	50-54.99	55+
N (%)	372 (35.6)	294 (28.1)	202 (19.3)	105 (10.0)	51 (4.9)	24 (2.3)

Table 2.

Past Medical History ¹ N (%)				
Diabetes Mellitus	Hypertension	Polycystic Ovarian Syndrome	Hypothyroid	Other ²
64 (6.1)	123 (11.7)	409 (39.0)	159 (15.2)	141 (13.5)

¹Patients may have more than one diagnosis, total will not equal 100%

²PMHs that appeared in less than 5% of patients were listed under “Other”

Table 3.

BMI Category	30-34.99	35-39.99	40-44.99	45-49.99	50-54.99	55+	p
Any documented weight loss counseling at initial visit (%)	52 (14.0) c,d,e,f	53 (18.0) c,d,e,f	68 (33.7) a,b,d,e,f	47 (44.8) a,b,c,e,f	43 (84.3) a,b,c,d	22 (91.7) a,b,c,d	<.001
Kg weight lost from initial to final recorded visit ¹	-0.34 ± 2.68 g	-0.34 ± 2.56 g	-0.13 ± 3.51	0.33 ± 7.84	2.31 ± 7.34 h	2.77 ± 7.43 h	.047

¹Negative values in this row would indicate % of original weight gained at final recorded weight.

^a Differs significantly from BMI 30-34.99 group at .05 level

^b Differs significantly from BMI 35-39.99 group at .05 level

^c Differs significantly from BMI 40-44.99 group at .05 level

^d Differs significantly from BMI 45-49.99 group at .05 level

^e Differs significantly from BMI 50-54.99 group at .05 level

^f Differs significantly from BMI 55+ group at .05 level

^g Significantly different than BMI 50-55+

^h Significantly different than BMI 30-39.99

Results

Table 4.

	Counseling at initial visit	Counseling not documented at initial visit	p
Kg weight lost from initial to final recorded visit ¹	0.68 ± 4.55	-0.27 ± 3.94	.002
% of original weight lost at final recorded weight ¹	0.47 ± 3.36	-0.29 ± 3.53	.002

¹Negative values in this row would indicate % of original weight gained at final recorded weight

Conclusions

1. Patients with BMI ≥ 50 kg/m² presenting to UIHC REI clinics with infertility are **more likely to receive weight loss counseling** than mildly or moderately obese ones
2. Patients with BMI ≥ 50 kg/m² presenting to UIHC REI clinics with infertility are **more likely to have weight loss** than mildly or moderately obese ones
3. This study shows an **association between preconception weight loss counseling and weight loss** observed in obese patients, though the effect is modest

Limitations and Next Steps

- Captured prevalence of documentation of weight loss counseling
- Quality improvement projects with educational materials and creation of new smart phrases in electronic health records

References

