

Desired weight changes in inpatients with anorexia nervosa following behaviorally based treatment

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Introduction

- Anorexia nervosa (AN) is a serious psychiatric disorder that has among the highest mortality and relapse rates of any psychiatric illness.^{1,2,3}
- Acute body dissatisfaction is a predictor of symptom severity and often persists after behavioral symptoms of AN have diminished.⁴
- Desired weight, assessed as the patient's preferred weight, is correlated with measures of body dissatisfaction across eating disorder diagnoses.⁵
- Studies examining change in desired weight with treatment have demonstrated mixed results, although in many such studies most patients did not achieve full weight restoration, with average discharge BMIs often under the diagnostic threshold for AN or < 18.5 kg/m².
- We hypothesized that desired weight would increase from admission to six-month follow-up and that completing treatment (attending partial hospital, meeting target weight, and clinical improvement at discharge) would be associated with a healthy desired BMI at follow-up.

Methods

- N = 124 inpatients with AN treated in a meal-based, integrated inpatient-partial hospital program, assessed within 3 days of admission and six months post-discharge.
- Patients were primarily female (91.8%), Caucasian (92.7%), and single (76.6%) with a mean age of 30 years.

Clinical Indices	M (SD)
Admission BMI (kg/m ²)	15.70 (1.71)
Discharge BMI (kg/m ²)	19.74 (1.86)
Inpatient Length of Stay (days)	35.11 (20.78)
Inpatient Rate of Weight Gain (lbs./week)	4.08 (1.68)
Partial Hospital Length of Stay (days)	32.46 (16.47)
Partial Hospital Rate of Weight Gain (lbs./week)	2.97 (1.25)

Self-Report Measures

- Desired Weight: "How much would you like to weigh?"
- Eating Disorder Inventory-2 (EDI-2)⁶
- Eating Disorder Recovery Self-Efficacy Questionnaire (EDRSQ)⁷

Measuring Preference for a Normal BMI

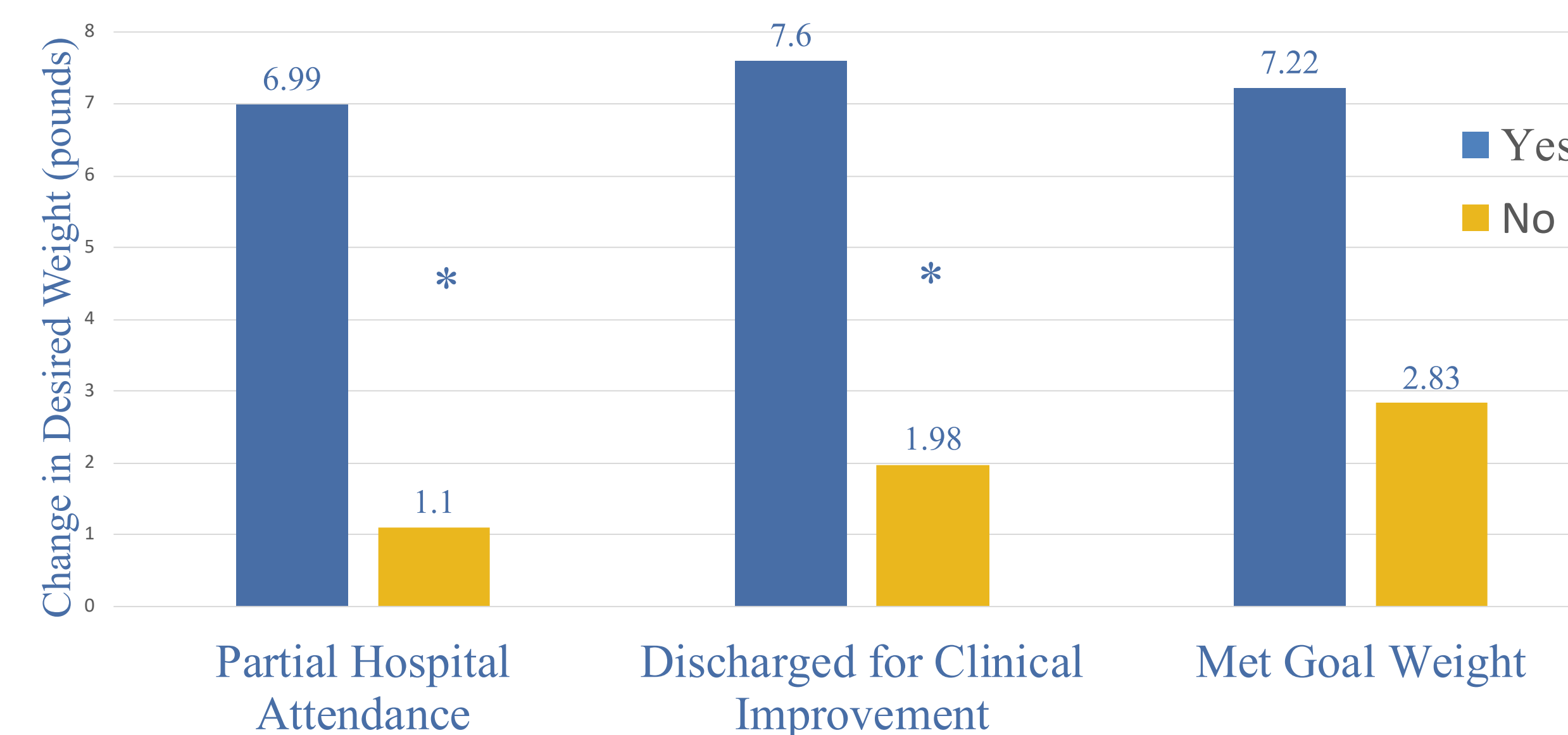
Participants were categorized into four groups based on change in desired weight over time:

- **Improved Desired Weight** (n = 25): preference for below normal BMI at admission, but a normal BMI at follow-up.
- **Stable Low Desired Weight** (n = 64): preference for a below normal BMI at admission and follow-up.
- **Stable Normal Desired Weight** (n = 31): preference for a normal BMI at both admission and follow-up.
- **Worsened Desired Weight** (n = 4): preference for normal BMI at admission, but a below normal BMI at follow-up.

Results

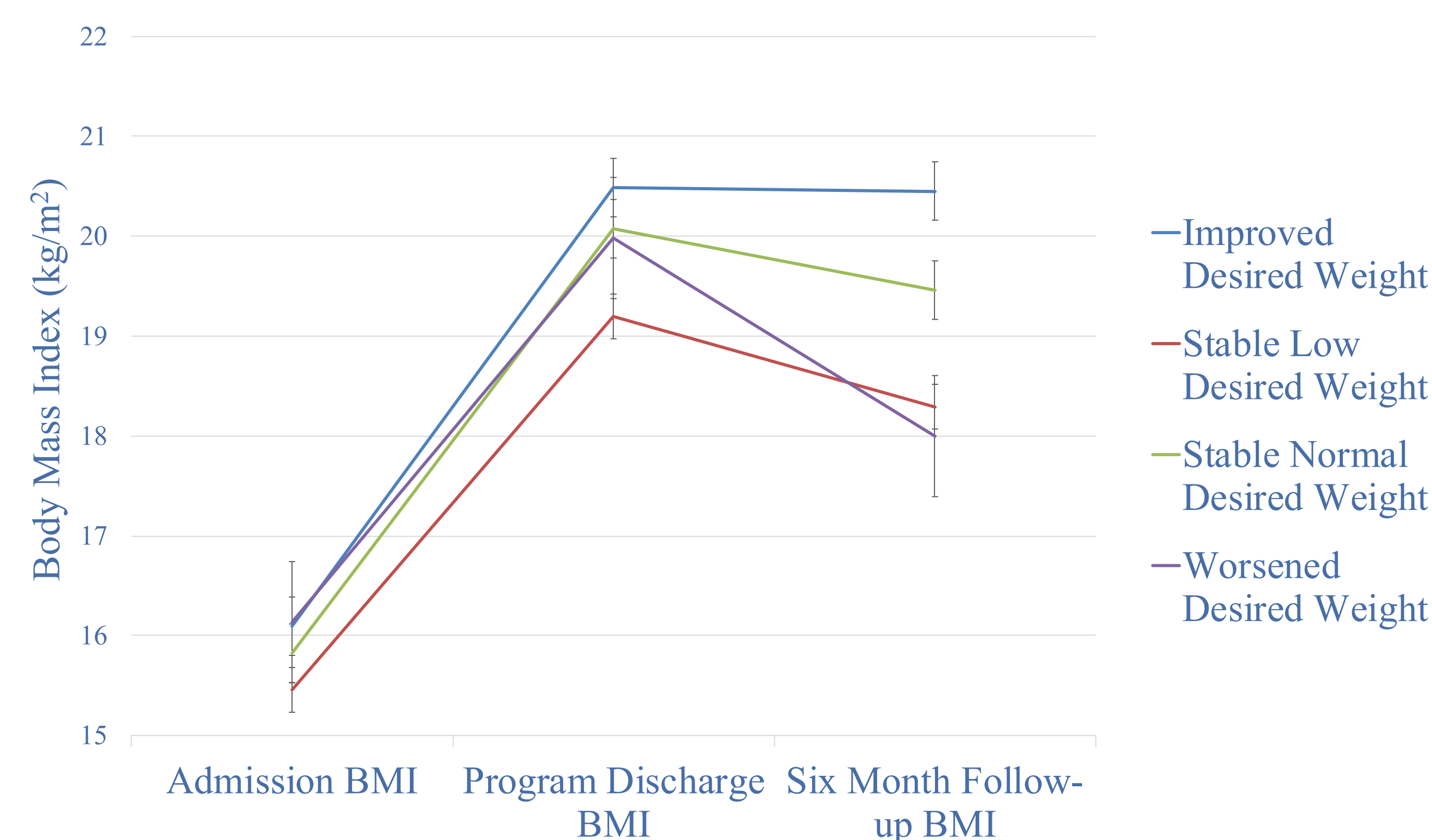
Average Change in Desired Weight

- At admission, average desired weight corresponded to a mean BMI of 17.58 kg/m² (SD = 2.22).
- As hypothesized, participants reported a 5.56 lb. increase in desired weight from admission to follow-up ($F [1, 123] = 36.57, p < .001$).



- Attending partial hospital and being discharged for clinical improvement were associated with a larger change in desired weight from admission to six-month follow-up, controlling for length of stay.
- Patients who met goal weight showed a larger change in desired weight, but this relationship was mediated by length of stay.

Preference for Normal BMI and Weight Maintenance



Those with an improved desired weight maintained a higher BMI ($M = 20.20 \text{ kg/m}^2$) at follow-up compared to those who preferred a below normal BMI at follow-up ($p = .002$). No other group differences were observed.

Predictors of Improved Eating Disorder Pathology at Follow-up

Six Month Follow-up Outcome	β	t	p
Normative Eating Self-Efficacy			
Preference for Normal BMI at Follow-up	.308	4.165	< .001
Change in Desired Weight	.351	4.689	< .001
Body Image Self-Efficacy			
Preference for Normal BMI at Follow-up	.268	3.195	.002
Change in Desired Weight	.126	1.512	.134
EDI-2 Drive For Thinness			
Preference for Normal BMI at Follow-up	-.325	-3.664	< .001
Change in Desired Weight	-.214	-2.527	.013
EDI-2 Body Dissatisfaction			
Preference for Normal BMI at Follow-up	-.203	-2.369	.020
Change in Desired Weight	-.197	-2.382	.019

Notes: EDI-2 = Eating Disorder Inventory-2nd Edition. Covariates in each linear regression model included length of stay, desired weight at admission, and baseline level of the variable assessed at six-month follow-up.

- Preference for a normal BMI at follow-up was associated with higher normative eating and body image self-efficacy and lower drive for thinness and body dissatisfaction at follow-up.
- Change in desired weight was associated with higher normative eating and lower drive for thinness and body dissatisfaction at follow-up.

Conclusions

- Findings indicate that desired weight can change in response to intensive behavioral treatment for AN, though change may not be observable immediately after discharge.
- Importantly, change in preference for a normal BMI was associated with maintaining a normal BMI at six-month follow-up.
- **Both** change in desired weight and preference for a normal BMI at follow-up were associated with improvements in body dissatisfaction, drive for thinness, and self-confidence to engage in normative eating at six-month follow-up.
- Further studies should examine the relationship between short- and long-term maintenance of weight restoration and improvements in body dissatisfaction.

References

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