

# Predictors of response to weight loss intervention: An examination of acceptance and mindfulness based variables

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## Background

Individuals lose on average 7% of initial weight in response to standard behavioral weight loss treatments, however variability is high, with some losing 50 or more pounds while others lose nothing, or even gain weight. Little research has been done to assess whether variables typically associated with acceptance and mindfulness interventions are associated with response to weight loss intervention. The present study aimed to examine such associations.

## Methods

### Design:

This study is a secondary analysis of completer data from a large RCT testing two interventions for weight loss maintenance. The present study examines data from the initial, non-randomized online weight loss period.

### Intervention:

All participants (N=235; 82% non-Hispanic White) received a previously validated, online weight loss intervention that consisted of 12 weekly behavioral lessons, a website for submitting progress information, and weekly automated feedback based on their progress. Participants received a calorie goal of 1,200-1,800 kcal/day and a goal of up to 150 min/ week of physical activity.

### Measures:

The present study looks at associations between weight loss and acceptance and mindfulness-based variables: psychological inflexibility as measured by the AAQ-II, weight-related experiential avoidance as measured by the *Acceptance and Action Questionnaire for Weight* (AAQW), and food acceptance as measured by the *Food Acceptance and Action Questionnaire* (FAQ).

### Assessments:

Baseline, 3 months

### Analysis:

For each variable, we examined baseline scores and 3-month change in relation to pre-to-post treatment weight loss using t-tests and correlations.

## Results

- Significant changes from baseline to 3 months in BMI, weight related experiential avoidance, and food acceptance
- No significant changes from baseline to 3 months in psychological flexibility
- BMI change was correlated with change in weight related experiential avoidance and food acceptance but not correlated with change in psychological flexibility
- 26% dropout from baseline (N=235) to 3-month assessment (N=174)
- Significantly higher dropout for individuals who scored above the mean on baseline AAQ-II than below the mean (35% vs. 22%). There were no significant differences on dropout for individuals who scored high rather low on the AAQW nor the FAQ.

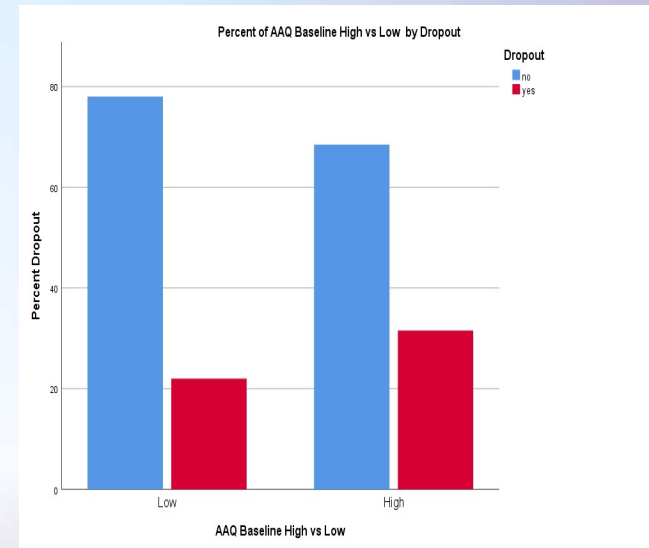


Table 2- Pearson Correlations

	3M AAQ 7 Chg	3M AAQW Chg	3 M FAQ Chg
3 M BMI Chg	-0.086	.276**	-.165*

\*\*p< 0.01; \*p<.05

Table 1 - Means and T-test Results for Study Variables

	M	SD	t	p
Baseline BMI	34.67	4.66		
3M BMI	32.91	4.81	16.16	<.001
Baseline AAQ 7 Item Score	16.01	7.42		
3M AAQ 7 Item Score	15.33	7.27	1.42	0.157
AAQWTot.0	72.33	17.61		
AAQWTot.3	63.48	17.66	8.55	<.001
FAQ - Baseline Score	43.98	6.94		
3M FAQ Total Score	47.14	7.03	5.22	<.001

## Conclusion

- Weight specific acceptance measures changed overtime for participants in response to an online behavioral weight loss intervention and were associated with a change in weight
- A generalized measure of psychological inflexibility did not change and was not associated with weight change, however baseline levels were the only predictor of dropout
- Future research is necessary to clarify the role of acceptance-based processes in weight control: e.g. (1) what accounts for weight related acceptance and mindfulness variables changing in response to weight loss intervention despite not being targeted? (2) Do acceptance-based processes play a mediating or moderation role in weight change, or are they a side effect of making large behavioral changes in general?
- It may be beneficial to target psychological inflexibility as a barrier to treatment engagement, although more research is needed