

Portion Controlled Frozen Meals at Lunch are Associated with High Compliance and Perceived Benefits During Weight Loss

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Background

Obesity is a top priority health issue in the United States and in many westernized countries. Portion control, including serving, selecting and consuming smaller portions, is among the few behavior modification strategies with the strongest evidence related to weight loss.¹

An evidence based review by the 2010 Dietary Guidelines Advisory Committee on the effect of portion size on body weight found a positive relationship between controlling portion size and weight loss in adults.²⁻⁶ Two clinical trials on men and women consuming reduced calorie diets either with or without packaged portion-controlled entrees reported that after eight weeks the portion-controlled groups experienced greater weight loss (5.6±2.2 vs. 3.6±2.5 kg in women and 7.4±3.1 vs. 5.1±4.0 kg in men, p<0.05) than the self-selected diet groups.^{3,4}

Although the efficacy of portion-controlled meals for weight loss has been established, the factors that underlie the efficacy have not been fully elucidated. Two factors that may contribute to the efficacy of consuming portion controlled meals are compliance and secondary benefits.

Purpose

To examine participants' compliance to and perceived benefits of consuming portion-controlled frozen prepared meals during a 30-day reduced-calorie intervention.

Methods

Subjects

32 participants (n=27 females, 5 males) between the ages of 25 and 65 years of age.

Data Collection

During a 30-day intervention, participants were instructed to replace at least 10 usual meals per week (7 lunches and at least 3 dinners) with portion-controlled frozen meals (Healthy Choice®, ConAgra Foods, Omaha NE). Participants accompanied the meals with two or three food items, such as salad, skim milk and fruit; and were provided with meal patterns and food lists from which to build their remaining meals and snacks. Patterns were designed to provide approximately 1,400 and 1,600 calories per day for women and men, respectively. Participants were encouraged to increase lifestyle activity and walk up to 150 minutes per week. Outcome measures included weekly body weights, intake checklists, anthropometrics at pre- and post-intervention, and an exit questionnaire at post-intervention.

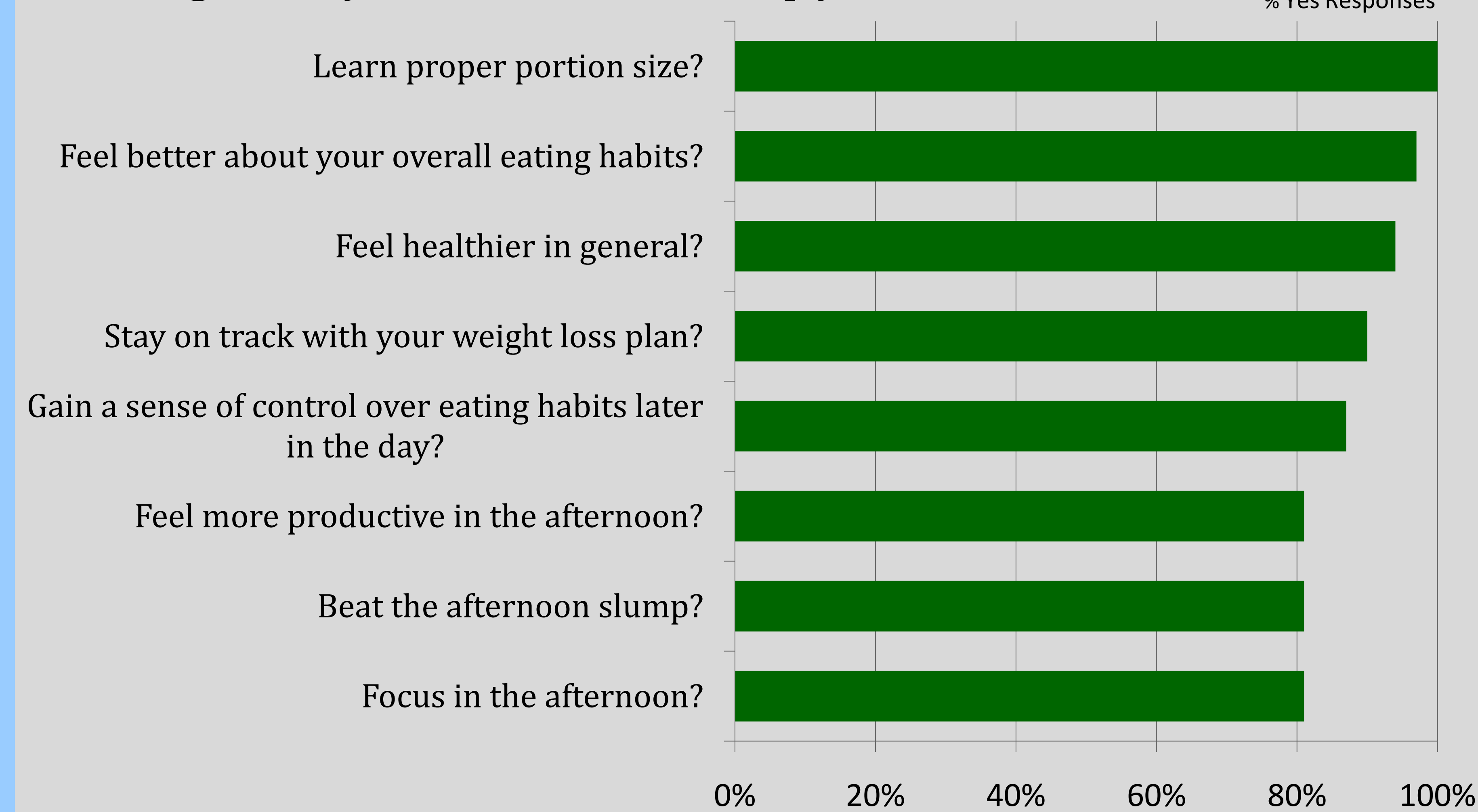
Analysis

Pre- and post-intervention data were analyzed using paired sample t-tests.

Results

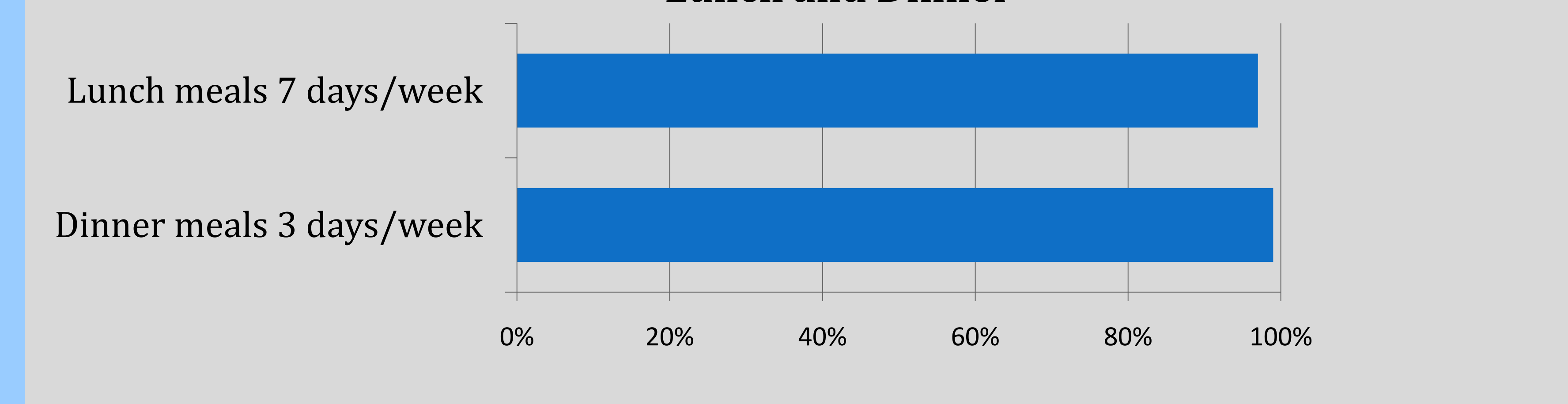
Exit Questionnaire

Did eating Healthy Choice® for Lunch help you...



Compliance

Percent of Participants Consuming Prepared Frozen Meals at Lunch and Dinner



Anthropometric Data

	Baseline	30 Days	Change
Weight, lb	188.2±29.5	181.9±27.3*	-6.3
BMI	31.2±3.3	29.9±3.7*	-1.3
Waist Circumference, cm	88.6±8.1	86.4±7.9*	-2.2
Body Fat, percent	43.7±4.8	43.1±5.0*	-0.6
Fat Mass, lb	79.5±17.0	75.7±16.2*	-3.8

*p<0.01

Conclusions

Participants exhibited excellent compliance with replacing at least 10 meals per week with portion-controlled frozen prepared meals as part of a reduced-calorie eating plan, resulting in weight loss, body fat loss, and reduced waist circumference.

After completing the 30-day intervention, all participants reported that eating the meals helped teach them proper portion size.

Implications

Replacing at least 70% of usual lunch and/or dinner meals with portion-controlled frozen meals may help individuals achieve compliance with reduced calorie eating plans.

In addition to helping participants achieve negative energy balance, a universal benefit of single serving frozen meals was helping participants learn appropriate portion size. This secondary benefit has long-term implications for maintenance of weight loss. These findings add to the evidence supporting the use of portion-controlled frozen prepared meals as a key strategy for weight loss and maintenance.

References

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