

Using Food Challenges and Cooking Videos in a College Nutrition Course as a Strategy to Improve Students' Cooking Self-Efficacy and Eating Habits



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Background & Objective

BACKGROUND

Theory-based nutrition education programs utilizing the Social Cognitive Theory (SCT) have been effective in changing behavior. SCT consists of several core constructs including self-efficacy, outcome-expectations, goals setting, self-regulation and social support. Interventions using a blend of goal setting and self-monitoring have been shown to be effective in changing dietary behaviors of college students.

OBJECTIVE

Evaluate the effect of weekly food challenges (initiating goal setting and self-monitoring) and cooking videos in a college nutrition course on student behaviors and self-efficacy relating to cooking and eating healthy food.

Methods

RESEARCH DESIGN AND INTERVENTION

- This study utilized a quasi-experimental pre-intervention/post-intervention design to investigate the effect of weekly food challenges and cooking videos on students' cooking self-efficacy and eating behaviors.
- Students enrolled in a Human Nutrition course at a large metropolitan university completed surveys during the first and last weeks for the semester to indicate attitudes and behaviors related to cooking and eating.
- Weekly modules asked students to participate in food challenges (e.g., Control Portion Sizes, Choose Healthy Fats, etc.) to help translate knowledge into behavioral changes. In addition to these food challenges, students:
 - Implemented two minor goals per week
 - Reflected on their experiences each week
 - Received weekly support and feedback
 - Viewed weekly cooking skills videos

INSTRUMENTATION AND ANALYSIS

- Eight subscales/single-item measures used to assess students' cooking self-efficacy and eating behaviors.
 - Each item assessed on 5-point Likert scale
 - Higher scores = more favorable cooking attitudes / eating behaviors
- Cronbach's alpha used to check for scale reliability
 - $\alpha > 0.7$ = acceptable level of item consistency
- Prior to assessing the effectiveness of the intervention, independent group t-tests confirmed there were no significant differences ($p > .05$) in participant scores between in-person and online students.
- Paired t-tests used to examine significant differences between pre-intervention and post-intervention scores for students.
 - Paired t-tests analyzed at a significance level of .008 (.05 /6) to account for Type I error inflation due to performing multiple t-tests.

EFFECTS OF THE INTERVENTION

Results suggested significantly higher scores for participants when comparing pre-intervention to post-intervention for the following cooking attitude and behavior measures:

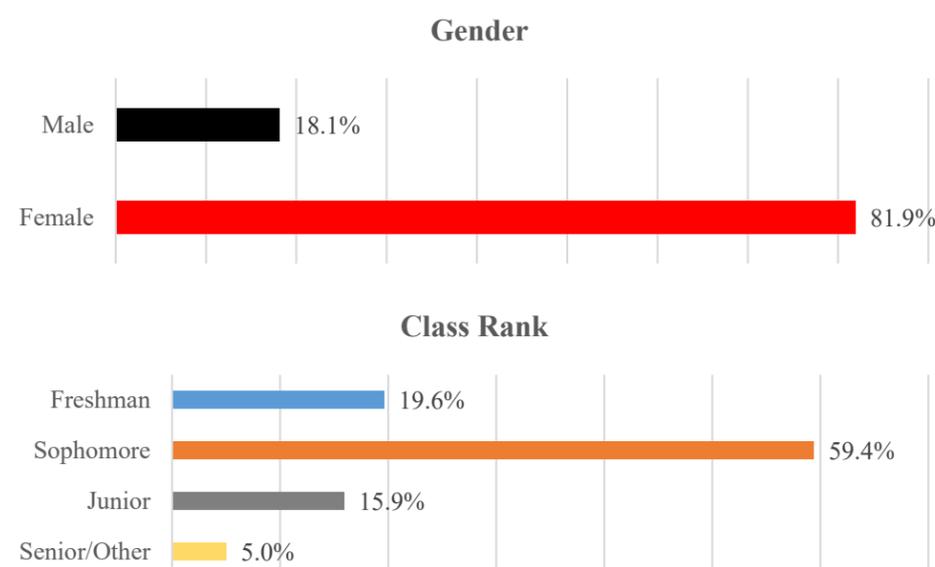
- Fruit Consumption (eating five servings of fruit/day)
- Vegetable Consumption (eating five servings of vegetables/day)
- Produce Consumption Self-Efficacy
- Cooking Self-Efficacy
- Using Fruits, Vegetables, and Seasonings Self-Efficacy

Table 1. Results of Paired T-Tests

Item/Scale	M (Pre)	M (Post)	t (137)	p	Cohen's d
Cooking Attitudes	3.83	3.79	0.93	.355	0.08
Fruit Consumption*	2.25	2.64	4.51	<.001	0.38
Vegetable Consumption*	2.40	2.79	5.51	<.001	0.47
Produce Consumption Self-Efficacy*	2.98	3.24	2.91	.004	0.25
Cooking Self-Efficacy*	3.81	4.01	3.23	.002	0.28
Fruits, Veg, and Season Self-Efficacy*	3.40	3.62	3.49	.001	0.30

Results

PARTICIPANT DEMOGRAPHICS (n = 138)



Conclusion

A goal setting strategy coupled with online cooking videos is an effective and cost-efficient intervention for increasing cooking self-efficacy and consumption of fruits and vegetables of college students.

References

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