

Friends let friends, balance their burger!

“Employing Injunctive Norms to Influence Healthier Food Choices on a College Campus”

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Background

To build on prior laboratory studies related to injunctive food norms, the goal of this field-experiment was to explore factors that influence patrons' food choices in a University cafeteria.

Objective

To evaluate the influence of food messaging (i.e., injunctive norms) at a designated food station in the cafeteria, with the goal of encouraging healthier food choices and exploring factors that influence patrons' food choices.

Participants

Characteristic	Baseline		Intervention		Overall	
	n	%	n	%	n	%
Gender						
Male	124	62	110	60	234	60.7
Female	76	38	72	40	148	38.7
Classification						
Undergraduate	164	82	143	79	307	80.7
Graduate	7	4	8	4	15	3.9
Faculty/Staff	25	13	26	14	51	13.4
Other	5	3	2	1	7	1.8
Age Category						
25 and under	164	82	141	77	305	79.8
26 and up	32	16	39	21	71	18.5



Design

We employed an interrupted time series, quasi-experimental design to assess the impact of food messaging. This study focused on individuals that patronized an American fast-food station in a university cafeteria that served predominately meats, such as hamburgers, chicken patties, etc. with french-fries served as a daily side item. One additional vegetable (mixed vegetables, corn, brussels sprouts, etc.) was served throughout our study. There was a 10-day baseline phase. During the 10-day intervention phase, three copies of healthy injunctive signs were placed in the cafeteria near a single food station.

Data Collection

During both stages of the study (control and intervention), participants who have selected at least one meat from the “Flame Station” were approached and asked if they would mind completing a two-minute survey. Within each survey, we collected the patrons' food choices, noting how many and what type of side items each purchased. Three subscales from *The Eating Motivation Survey* (Social Norm, Social Image, and Weight Control) were also asked to determine what influenced patrons' food choices (Renner, Sproesser, Strohbach, & Schupp, 2012). During the intervention, we asked patrons if they saw the sign and what they remembered.

Data Analysis

To compare the proportion of patrons purchasing at least one healthy side item during the baseline and intervention phases, we used a two-sample proportion test. Descriptive statistics were used summarize participants recall of the signage.

Results

Q: Was there a difference in healthy vegetable purchasing behavior during the baseline and intervention phases?

The two-sample proportion test for 200 baseline participants and 182 intervention participants ($z = -1.55, p = .12$) did not indicate a difference in the proportion of patrons purchasing at least one healthy side-item during the experimental weeks.

Q: During the intervention phase, what did participants recall about the signage?

Approximately 40% of the patrons remembered seeing the signage

Approximately 24% recalled some detail of the signage.

Q: What influences did participants indicate influenced their eating?

Approximately 17% reported eating with others influenced their eating.

Descriptive Statistics with Means and Standard Deviations on the Measure of Social Norm, Social Image, and Weight Control in relationship to Gender, Age, and Healthy Vegetable Status (respectively)

	Total	Male	Female	p value	Partial η^2
	(N = 382)	(n = 234)	(n = 148)		
Social Norm: M(SD)	5.80 (5.60)	5.52 (2.86)	6.25 (8.25)	.026	.024
Social Image: M(SD)	7.13 (15.31)	6.69 (3.67)	7.81 (24.20)	.026	.024
Weight Control: M(SD)	18.00 (19.77)	16.88 (3.92)	19.77 (31.37)	.026	.024

	Age Cat	Std. Deviation	N		Healthy Veg Stat	Mean	Std. Deviation	N
Social Norm	25 and under	2.75979	304	Social Norm	No	5.8796	5.95606	324
	26 and up	11.64044	71		Yes	5.3966	2.97321	58
	Total	5.64318	375		Total	5.8063	5.60597	382
Social Image	25 and under	3.57635	304	Social Image	No	7.2315	16.53738	324
	26 and up	34.68534	71		Yes	6.5690	4.25549	58
	Total	15.45087	375		Total	7.1309	15.31724	382
Weight Control	25 and under	3.90922	304	Weight Control	No	18.1512	21.42650	324
	26 and up	45.14578	71		Yes	17.1897	3.51666	58
	Total	19.95411	375		Total	18.0052	19.77817	382

Conclusion

This study sought to determine if employing social norms through food signage influenced patron's side-item choice. While the results did not show a significant difference in choosing healthier items, the patrons' recall of the sign shows promise for how colleges can implement and encourage healthier eating habits on their campuses.

