

IMPROVING FOOD SELECTION AT FOOD SHELVES THROUGH BETTER DESIGN AND NUDGING

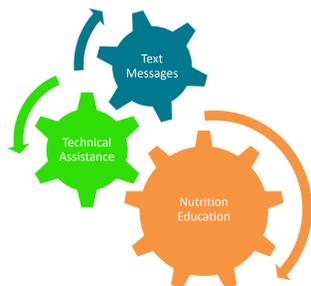
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UNIVERSITY OF MINNESOTA
EXTENSION

BACKGROUND

Minnesota is among the healthiest states with growing health disparities. Food availability for low-income families is a concern. The Nudging at the Food Shelf initiative used multi layered, community engaged efforts through: 1) train the trainer (TtT) for food shelf staff, 2) technical assistance around food behavioral economics and placement, 3) nutrition education and nudging for food shelf clients through text messaging.



OBJECTIVE & METHODS

Evaluation strategies included 1) Fruit and vegetable (F/V) frequency questionnaire from participants, 2) Reactions of food shelf staff about behavioral economics trainings, and 3) Surveys directed to food shelf clients about text based nudging strategies.

TEXT MESSAGING



Sixty six food shelf clients enrolled at 3 sites (Mankato, Annandale and Buffalo). Train the trainer was implemented at each site. On average 3 text messages were sent to participants within 6 weeks.

F/V frequency survey was administered before the program was implemented and after the last text message. Two sites provided usable Pre-Post data. T-test was performed on F/V frequency data.

NUDGING



Post-training evaluation forms were given to food shelf staff to assess their perceptions and their knowledge immediately after the behavioral economic trainings was implemented.

An additional survey was given to participants to evaluate their experience of the text-based nudging program.

RESULTS

Overwhelmingly, the response from food shelf volunteers is positive.

- Most participants agreed that the information was new to them and it was useful (84% and 90% respectively).
- A high percentage of participants felt confident in adding nudges to the food shelf (91%) and felt confident in their ability to select recipes for nudging (90%)

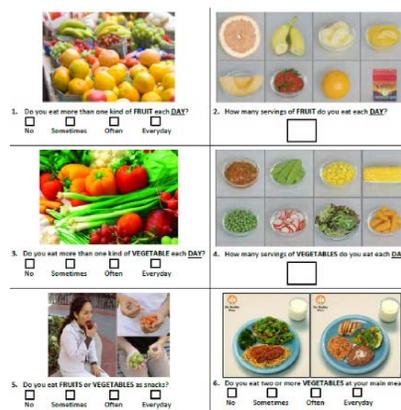


Figure 1 Picture-based Item for UMN Extension for Adult Fruit & Vegetable



An additional survey was given to participants to evaluate their experience of the program.

- All participants found that the texts were helpful reminders about fresh fruits and vegetables at the food shelf.
- Majority of the participants (66%) had tried the recipes sent via text message
- One person did not recall there being any recipes.
- Half of the participants tried a new fruit or vegetable because of getting the text messages
- Most common answer squash (3 people); followed by eggplant and zucchini (both 2)
- Majority of the participants (83%) thought that it helped to get a reminder by text message to pick up fruits and vegetables at the food shelf.
- All participants would want to get the text messages about available fresh fruits and vegetables at the food shelf again.
- Majority of the participants (66%) feel more comfortable using unfamiliar fruits and vegetables now than they did before receiving text messages.
- No one had problems getting the text messages

Food frequency surveys results

	Pre		Post		Paired differences		
	Mean(SD)	Mean(SD)	Mean	S.D.	df	sig.	
q1	1.83(1.11)	2.42(0.67)	0.58	0.67	11	0.03*	
q2	2.67(1.05)	3.21(1.37)	0.25	1.39	11	0.2	
q3	1.67(1.07)	2.00(0.95)	0.33	0.49	11	0.04*	
q4	2.88(2.51)	2.50(1.68)	-0.38	1.11	11	0.27	
q5	2.17(0.83)	2.00(0.60)	0.17	0.72	11	0.44	
q6	1.75(1.06)	1.92(1.00)	0.17	0.94	11	0.59	

	Pre		Post		Paired differences		
	Mean(SD)	Mean(SD)	Mean	S.D.	df	sig.	
q1	1.83(0.94)	1.67(0.89)	-0.17	0.72	11	0.44	
q2	2.8(1.69)	2.75(1.21)	-0.05	1.04	9	0.88	
q3	1.64(0.92)	1.91(0.83)	0.27	0.65	10	0.19	
q4	2.75(1.55)	2.5(1.05)	-0.25	1.40	9	0.59	
q5	1.75(0.75)	1.58(0.90)	-0.17	0.94	11	0.55	
q6	1.33(0.78)	1.58(1.00)	0.25	0.75	11	0.28	

PARTICIPANTS REPORTED:

“It was a good reminder. Sometimes you get in a rut with the same fruits/vegetables and it was a good reminder.”

“Fun experiences; I told other people about it and I showed them the recipes and they wanted to know if we were still doing it. Opens people's eyes to use vegetables and not just using meats. I would like to keep doing it if you continue.”

CONCLUSION & IMPLICATIONS

Focus on physical environment and choice architecture through a multilayer approach to changes at food shelves has increased the intake of fruits and vegetables in participating food shelf participants.

Further research is needed to determine if healthy food selection can be influenced in other food groups.

University of Minnesota Extension health and nutrition staff will work to formalize the multilayer approach to use in future programming through research and replication.

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