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Nudging to Health: Promoting Health Nudges at Your Food Pantry is a multi-pronged initiative designed for food pantry staff, directors, and volunteers committed to offering healthier choices to their clients. Participants receive the education, tools, resources, and technical assistance to make changes that will encourage healthful food selection among clients.

Keywords: nudging, food pantry, emergency food access, client choice

Introduction

A food pantry is a community-specific hunger relief agency that provides free food to clients who have difficulty accessing food (Wilson, 2016). Based on the current research, the majority of individuals who use food pantries experience high levels of food insecurity, obesity, and poor diet quality (Eicher-Miller, 2020; Simmet et al., 2017). Client-choice food pantries, along with nudging techniques, are centered on improving the health of their clients by encouraging them to select healthier foods at the food pantries (Wilson et al., 2016). Extension professionals can play an essential role in influencing food pantries to nudge clients toward making healthier dietary choices by training food pantry directors, staff, and volunteers (personnel). The University of Minnesota Extension's *Nudging to Health: Promoting Healthy Nudges at Your Food Pantry* is an educational and technical assistance program targeting food pantry personnel who are contemplating client choice operation models. The program focuses on low-cost and no-cost environmental changes at the food pantry and the use of food conversational nudges (verbal encouragement) to support client choices of healthier food.

Nudging is an environmental approach receiving increased attention in the public health and health promotion field (Broers et al., 2017; Mertens et al., 2022). Nudging is defined as any

aspect of design “that alters people’s behavior in a predictable way without forbidding any options or significantly changing their economic incentives” (Sunstein & Thaler, 2008, p.6). The concept of nudging was first introduced in the field of behavioral economics, which brings together psychology and economics to explore the economic decisions humans and organizations make (Jolls et al., 2000). Choice architecture (nudging) involves altering the physical environment to influence people’s choices and has been successfully used in smoking and alcohol reduction campaigns, school lunchroom operations, and grocery store designs (Gonçalves et al., 2021; Nørnberg et al., 2016; Sunstein & Thaler, 2008). Evidence suggests that positional changes, like manipulation of food product order (low-fat milk first in the case) or proximity (chocolate milk in the back of the case), have a positive effect on food choices (Bucher et al., 2016). In addition, a meta-analysis evaluating the effectiveness of nudging to promote fruit and vegetable selection suggested a significant effect of nudging interventions on fruit and/or vegetable choices/sales/servings (Broers et al., 2017). Current research shows that nudging strategies can successfully improve clients’ food selections at food pantries (Caspi et al., 2019; Coombs et al., 2020; Feeding America & Cornell University, 2016; Wilson et al., 2016). Food pantry personnel purchase, organize, and inventory the food and work with clients as they enter the food pantry (Sindorf & Howe, 2020). Because of their essential role in the food pantry ecosystem, this program was designed to train food pantry personnel directly in nudging interventions.

Purpose

Since the development of client choice food pantries, the University of Minnesota Extension (Extension) has assisted food pantry personnel in encouraging clientele to make healthy food choices (Remley et al., 2006). The purpose of the *Nudging to Health* program is to positively change the food environment at the food pantry so that clients make healthier food selections. The goal of the Nudging to Health program is to provide education and technical assistance to food pantry personnel (both paid staff and volunteers). The program was evaluated to determine whether the program was acceptable to food pantry personnel and if the training resulted in an increase in volunteer and staff participants’ understanding of nudging techniques and a willingness to apply nudging principles.

Background

Every day in Minnesota, over 9,000 people visit a food pantry to meet their daily food needs (Hunger Solutions, 2017). *Nudging to Health* is an educational and technical assistance program delivered in Minnesota by 25 Extension SNAP-Ed educators. This multi-pronged initiative included face-to-face education, technical assistance to implement nudging principles, food pantry product placement and layout, text messaging reinforcements, and information on how to set up text messaging for the promotion of fresh fruits and vegetables and whole grains. Food pantry personnel were the target audience for this initiative. They were recruited by SNAP-Ed

educators based on requests from food pantries for programmatic and technical support. SNAP-Ed educators promoted the initiative to food pantries in their area.

The training was designed to help pantry staff and volunteers implement behavioral economics strategies, which help influence people's decisions on food choices by presenting food choices differently, and choice architecture concepts or changes to the food pantry environment to influence people's food choices. The initiative focused on low-cost and no-cost changes that could be made to the pantry environment, as well as examples of verbal nudges that volunteers could use to positively influence food selection among food pantry clients. The two-hour training included a discussion of MyPlate (USDA nutritional guidelines), a section about how to nudge clients to make healthier choices, and hands-on practice using nudging skills through guided role-playing. All participants received a resource book that included information on food safety, guidelines for storing and preserving produce, simple recipes with commonly used food pantry foods, and point of service information placards for fruits and vegetables. All *Nudging to Health* materials were stored on the Building Better Food Pantries resource website (University of Minnesota Extension, n.d.). Food pantry personnel can easily access the online materials to train new and existing personnel. In addition, SNAP-Ed educators provided personalized technical assistance to food pantry staff and volunteers.

The educators trained food pantry personnel on techniques to change the placement of items around the food pantry and improve signage to influence food selection. Less healthy food options were placed above or below eye level, and healthier options were placed at eye level. Hard-to-move food items were bundled with food items that were selected more often. For example, whole grain pasta was bundled with marinara sauce. Attractive food displays and placards labeling food selection and food items helped guide the client through the food pantry experience. Food pantry clients were offered the opportunity to receive text messages, which reinforced the nudging information. Clients received two to three text messages per week for six weeks to encourage the selection and consumption of fresh fruits and vegetables, including recipes and storage tips. The text messages consisted of reminders to come weekly to get fresh fruits and vegetables, available food items, and food preparation tips. Clients could also communicate directly with the lead SNAP-Ed educator in their area through texts to ask questions.

Methods

After their training, a paper survey was administered to food pantry personnel that asked for feedback on the instructor and their confidence in and intention to use the skills they learned in training to make changes at their food pantry. The survey was developed by a team of an Extension educator, SNAP-Ed educators, a research specialist, and two graduate research assistants. The survey was piloted with staff members and volunteers in a few food pantries. The

survey had four questions. The questions were about instructor performance, the usefulness of the training material, strengths of the training, and opportunities for improvement (Table 1).

Table 1. Questions to Assess Food Pantry Personnel’s Experience of Nudging to Health Training

Questions and Response Options
How much do you agree or disagree with the following statements about the instructor(s)? The instructor(s)...
<ul style="list-style-type: none">• ...was (were) well prepared.• ...answered questions clearly.• ...held my attention• ...presented information that will help me.
Response option: Strongly Agree, Tend to Agree, Tend to Disagree, and Strongly Disagree
How much do you agree or disagree with the following statements about the training?
<ul style="list-style-type: none">• The information presented was new to me.• The things I learned today are useful to me.• I now feel confident about nudging clients at the food shelf• After this training, I am eager to nudge our clients in healthy eating.• I would recommend this training to other volunteers or staff.
Response options: Strongly Agree, Tend to Agree, Tend to Disagree, and Strongly Disagree
What do you feel were the strengths of this training?
What could we do differently to improve this training?

Evaluations were analyzed to monitor program quality and for program improvement ideas which were shared in regional meetings with SNAP-Ed educators. Data were analyzed using descriptive statistics, specifically examining the percentage of respondents who answered questions in a certain way. Percentages and counts were used to present the results.

Findings

The changes made through *Nudging to Health* have potentially impacted approximately 64,833 food pantry clients in Minnesota, about 1% of the state population. This calculation was based on food pantry client attendance records reported by food pantry directors. Between 2015 and 2019, a total of 42 training sessions were conducted across Minnesota.

Since 2015, 376 food pantry personnel representing 157 food pantry partners have completed the *Nudging to Health* training. All 376 participating food pantry personnel were asked to complete an evaluation, and 184 (49%) of them completed it. Participants indicated that the information was new to them (77%) and that the information was useful (97%). Participants (97%) indicated they felt confident about nudging clients at the food pantry after receiving the training, and they were eager to nudge clients toward healthy eating. The majority also indicated they would recommend the training to other volunteers and staff (98%). Feedback from participants was

primarily positive and included the following comments: “Great examples, especially helpful with the whole grains,” and “Great resources to take back to the food pantry to use.”

Discussion

One approach to address the dietary needs of food pantry clients who are food insecure is to provide direct education to food pantry clients on topics like nutrition education and cooking (Caspi et al., 2017). However, direct education is only one level among many when trying to prevent dietary-related chronic disease in limited-income food pantry clients, and a multi-pronged approach may yield more impact (Martin, 2021; Prevention Institute, n.d.). Previous program evaluation of the impact of both direct education and policy, systems, and environment (PSE) change with SNAP-eligible clients has yielded mixed results (Caldwell et al., 2021). No studies were found that looked at the impact of both direct education and other interventions at different PSE levels in food pantries. To address this gap in interventions promoting PSE change in food pantries, *Nudging to Health* was designed as a training and technical assistance program for food pantry personnel. In food pantries, food pantry staff are responsible for purchasing food from food banks, while volunteers are responsible for stocking the products on the shelves and organizing fresh produce/food (Sindorf & Howe, 2020). Food pantry staff and volunteers can be mediators between the clients and available food options on the food shelf. Thus, training food pantry staff and volunteers on nudging techniques could be an essential step to increasing clients’ healthy food selection in food pantries since nudging techniques like positional changes in food pantries were shown to have a positive effect on food pantry clients’ food selection (Broers et al., 2017; Bucher et al., 2016). The primary benefit of this program was to support food pantry personnel in nudging techniques, thereby expanding the reach of behavioral economics healthy food promotion strategies to food pantry environments. The training, delivered through SNAP-Ed, was received positively by food pantry personnel, including reported satisfaction with the training, the technical assistance provided, and improved confidence regarding implementing change.

Other Extension systems working on improving health and nutrition for low-income clients, such as school food service training and volunteer training, can benefit from implementing *Nudging to Health* or similar behavioral economic principles as an alternative or in addition to direct education. SNAP-Ed provides direct education as well as support for PSE changes (U.S. Department of Agriculture-National Institute of Food and Agriculture, n.d.; U.S. Department of Agriculture-SNAP-Ed Connection, n.d.). The initiative described in this article trained food pantry personnel in behavioral economics approaches on nudging and product placement and received positive feedback from those trained. Extension educators interested in supporting food pantries may also find a behavioral economics approach feasible and effective. However, food pantries may vary in their readiness to adopt a nudging approach. In our experience, food pantry operations are diverse in terms of the demographics of the population they serve, whether they are client choice, hours of operation, and volunteer roles. Extension professionals should aim to

tailor their education according to food pantry readiness and work with them to make sensible changes that fit their unique situation.

Nudging to Health offers a multi-pronged approach for food pantries using direct education, technical assistance, texting reminders, and online resources to support building a better food pantry. Texting has been shown to be effective in two Extension projects (Beecher & Hayungs, 2017). Text reminders may benefit food pantry clients with the opportunity to select a wider variety of foods.

The strengths of this program evaluation were the large sample size and the diversity of participants across rural and urban areas. The evaluation's limitations included the self-report nature of the survey resulting in bias (recall bias, social desirability, etc.).

Conclusion

Thousands of Minnesotans rely on food pantries to meet their health and nutrition needs, so *Nudging to Health* is a feasible, low-cost opportunity for reaching a large number of people to promote healthful behaviors. Food pantry clients will continue to serve as a primary target audience for SNAP-Ed efforts. Subsequently, SNAP-Ed and other Extension educators will continue to work with food pantry partners to provide education and technical assistance. The University of Minnesota Extension will create a tool kit for educators and partners to access and work with food pantry advisory boards. In addition, more rigorous evaluation methods may be conducted in the future to examine food pantry personnel's implementation of strategies and nutrition outcomes in food pantry clients.

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