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Food Pantry Staff Attitudes about Using a Nutrition Rating System to Guide Client Choice

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ABSTRACT

In light of the elevated risk of diet-related illnesses among families who rely on food pantries, there have been efforts to bring more nutritious foods into the food banking system. In the food pantry setting, 1 idea is to use a stoplight rating system that clearly identifies the nutritional value of each food. However, food pantry staff and volunteers are important partners in implementing any changes to the food pantry environment. To date, little is known about their attitudes toward nutrition rating systems. Therefore, in this study, focus groups with food pantry staff and volunteers were conducted to assess their views on implementing a nutrition rating system, including facilitators and barriers. The findings were that participants believed that many clients, especially those with diet-related illnesses, would benefit from additional nutrition guidance. They recommended providing clear, nonjudgmental messages to identify the rating of each food. They expressed concern about reliable access to healthy foods from food banks and donors. Finally, they noted reasons why clients might not choose healthy foods for reasons unrelated to nutrition, such as lack of transportation and cooking equipment. These findings suggest that by engaging staff from the outset of an intervention study, barriers and challenges can be identified and managed.

Introduction and Background

In 2016, 15.6 million American households were food insecure.[1] Despite considerable investment in federal food and nutrition assistance programs, many households are not able to procure enough food for the month and must rely on free food from the food banking network.[2] Most of the food banking network, also called the emergency or charitable food system, is under the umbrella of Feeding America, a national nonprofit organization.[3] The Feeding America network is comprised of 200 food banks that collect and distribute food through approximately 58,000 community partner

organizations, which include food pantries, community kitchens, and residential programs.[3] There are several reasons why the federal food and nutrition assistance programs may be insufficient to meet a household's need for food. Feeding America's "From Paycheck to Pantry: Hunger in Working America" report identified underemployment, low wages, and competing household expenses (e.g., housing, medical, and education) as key contributors to unmet household food needs.[4] Another contributor to his phenomenon is the fact that supplemental nutrition assistance program (SNAP) benefits are issued toward the beginning of the month and are often spent before the end of the month.[2,5]

Food pantries are critical components of the emergency food system. These are best described as agencies where clients can pick up free food and supplies. Most pantries are located in the buildings of faith-based organizations, schools, community centers, and other service organizations. Food pantry layout varies, ranging from some agencies that resemble small grocery stores, to others that are a collection of nonperishable foods stored in a closet. Traditionally, a standard practice at pantries was to give clients a bag of preselected food items intended to last a specific number of days.[6] However, food pantry practices have evolved in recent years.[7] Specifically, the practice of handing clients a prepacked bag has been criticized because it can lead to waste if all clients do not have the same food needs or preferences.[8,9] Instead, many pantries now use the "client-choice model," which allows clients to either select their own items from shelves or identify the items they want on a written checklist.[7,8] Allowing clients to choose their own foods provides a more dignified shopping experience, respects the fact that clients have unique preferences and needs, and decreases waste because clients only take foods they know they will eat.[7]

One way to build on the client-choice model is to ensure that the choices at pantries include an adequate array of nutritious foods.[5,6,10] This is critically important in light of the difficulty that low-income Americans in general, and food pantry clients in particular, have in meeting their nutritional needs.[11,12] Families who rely on food pantries are at elevated risk for diet-related illnesses such as diabetes and hypertension.[13–17] For example, Seligman et al.[16] examined the relationship between food security status and clinical evidence of diabetes and hypertension in a nationally representative sample of about 5,000 low-income adults. They found that food insecure adults had a 21% higher risk of clinical hypertension and were about 50% more likely to exhibit diabetes symptoms than food secure adults.[16]

Although food pantries are the agencies that interact directly with clients, most efforts to date to measure the nutritional quality of food have occurred at the food bank level. For example, the Greater Pittsburgh Community Food Bank and MAZON, a national anti-hunger organization, developed the Choose Healthy Options Program (CHOP). CHOP tracks the nutritional quality of the

foods coming into the food bank using information from the nutrition facts label to calculate a score of 1, 2, or 3 (i.e., choose often, sometimes, and rarely, respectively).[18] The purpose is to use this information when making procurement decisions. There is evidence that CHOP works as intended: A study of the Atlanta Community Food Bank's implementation of CHOP found that the proportion of foods classified as most nutritious increased by 43% over the study period.[19] Ideally, the shoppers from food pantries who are obtaining food from the food bank can also use this information to make nutritionally informed decisions. In the Atlanta Food Bank study, pantry directors reported during in-depth interviews that used the CHOP ratings when selecting specific products within food categories from the food bank to have in their pantries.[19]

The logical next step for this work is to bring the nutrition rating system to food pantry level where clients can also see it and benefit from the information. This is consistent with the growing interest in the potential of making changes to the food pantry environment where clients shop in order to promote the healthiest choices.[6,20–22] A recent Feeding America report, *The Power of Nudges: Making the Healthy Choice the Easy Choice in Food Pantries*, presents results from 8 small-scale randomized experiments testing the impact of signage, adding multiple exposures, and product placement on the selection of healthier foods.[23] Overall, the authors conclude that nudges are a promising, cost-effective approach to promoting healthier food choices in pantries. However, there were null findings in 2 of the experiments, which the authors largely attribute to noncompliance and compromises to the study design by food pantry staff and volunteers during implementation.[23] Therefore, 1 lesson learned from these studies is the importance of buy-in from pantry leaders and volunteers.

The significance of engaging food pantry staff and volunteers as partners in designing and implementing interventions is also evident in the scientific literature.[5,7,8] For example, Remley et al.[7] credit the successful development of a nutritional score card based on MyPlate food groups to a collaborative process during the developmental stages. In other qualitative studies, pantry staff have provided insight into facilitators and barriers to distributing fresh produce and other nutritious foods to clients and have pinpointed the most effective strategies for creating supportive environments in food pantries.[5,8] Therefore, in order to ensure that interventions intended for food pantries are appealing, appropriate, and sustainable, it is critical to first engage the people who work and volunteer regularly in these settings.

Study Aims

The purpose of this study was to assess food pantry staff and volunteers' attitudes about implementing a rating system to improve the nutritional quality of client choices. Specifically, we sought input about how the rating system should be designed and executed. In addition, this study aimed to identify facilitators and

barriers to implementing a nutrition rating system in food pantries. Finally, this study explores factors that potentially moderate the impact of nutrition rating systems on the nutritional quality of foods selected by pantry clients.

Methods

Focus groups were conducted between July 2016 and September 2016 in 6 food pantries in 3 cities in Connecticut. The research design and focus group instruments were reviewed and approved by the University of Connecticut Institutional Review Board.

Recruitment

Volunteers and staff from 6 food pantries were recruited to participate in this study. Each food pantry manager distributed flyers to staff and volunteers requesting participation in a 1-hr focus group. Focus groups were scheduled after 8–10 volunteers notified the pantry manager that they were interested in participating. All participants received a US$10 gift card at the conclusion of the focus group.

Procedure

Prior to data collection, the research team completed site visits to complete detailed observations of pantry operations, the nutritional quality of inventory at each pantry, and staff's overall receptiveness to making structural changes. A total of 6 focus groups including 8–10 participants were conducted. Each session was audio recorded and conducted by a lead moderator who was previously trained on the focus group script, probes, and best practices for facilitating group discussions. A room assistant took notes during the focus group and the debriefing sessions. At the start of the meeting, participants were asked to complete a short survey that asked their gender, age, and how long they have volunteered at the pantry.

Instrumentation

A focus group guide was developed and pilot tested with staff from a pantry that was not part of the study sample. Feedback from the pilot focus group informed the final guide. The guide began with open-ended questions about pantry characteristics (i.e., operations, layout, and inventory) and each person's role at the pantry. The participants were asked subsequent questions for their opinions about the nutritional value of the foods available in the pantry, whether they spoke with clients about nutrition and health, and what they thought was important to their clients when they were selecting food.

For the final segment of the focus group, participants were shown pictures of a stoplight nutrition rating system that categorized foods as green, yellow, or red, as well as examples of messages that may be used to supplement the system. They were told that 1 idea was to organize items on the shelves by food category and within each food group, put the green items on the top shelf at eye level, the yellow items below green, and red items at the bottom. The participants were asked specific questions about how they thought such a system might be implemented in their pantry, how clients might react, and whether they thought this type of system would help clients when they were choosing their foods.

Data Analysis

Recordings of all 6 focus groups were transcribed verbatim. Focus group transcripts were reviewed for errors and uploaded into NVivo Statistical and Qualitative Data Analysis Software (v 11) for team coding. An initial version of the coding guide was developed based on the primary research questions and the focus group guide. Two members of the research team with training in qualitative methods coded the data. Minor revisions were made to the coding guide after the first round of coding. During preliminary stages of data analysis, members of the research team conducted feedback sessions with food pantry staff to verify the interpretation of the data from the focus groups. Throughout the coding process, members of the research team met to establish consistency in how codes were being applied to the transcripts. Key findings were extracted using thematic analysis techniques.[24]

Results

The full sample ($N = 40$) was predominantly female (80%) and ranged in age from 21 to 89 years ($M = 59.97$, standard deviation (SD) = 16.19) and 1–21 years volunteering at the pantry ($M = 7.75$, SD = 4.96). At 5 of the pantries, the majority of the participants were non-Hispanic white, and the focus groups were conducted in English. At the 6th pantry, the participants were predominantly Hispanic, and the focus group was conducted in English and Spanish with the help of a translator who was affiliated with the pantry. All 6 pantries self-identified as client-choice and had volunteers who interacted with the clients and assisted them as they shopped. The pantries ranged from a small site open once a week that serves 500 people in a month, to a large site open 3 times a week that serves over 1,500 people a month. Descriptions of each pantry are in Table 1.

Overall, the participants were supportive of the goal of improving the nutritional value of the foods available in their food pantries and having a clear, concrete way to communicate that information to clients. They emphasized the importance of having clear written messages in multiple languages that indicated why a food was healthy or not. They shared how they tried to

Table 1. Profiles of participating food pantries.

Pantry	Open	Staff	Frequency with which clients can shop	Storage	Percentage of food sourced from the food bank	Average number of people served monthly	Average pounds distributed monthly
1	1 day/week 5:00 PM–6:30 PM	1 paid	1×/week	Shelves and refrigerators	85	662	4,589
2	4 days/week 9:00 AM–5:00 PM	2 paid	1×/month	Shelves and refrigerators	38	500	1,500
3	3 days/week 10:00 AM–1:00 PM	1 paid 10 volunteers	1×/month	Shelves and refrigerators	20	1,595	17,548
4	1 day/week 8:30 AM–10:30 AM	0 paid 10 volunteers	1×/month	Shelves and refrigerators	95	520	12,000
5	1 day/week 9:00 AM–10:30 AM	3 paid 10 volunteers	1×/week	Shelves	80	712	9,752
6	3 days/week 9:00 AM–3:00 PM 2 week nights and 1 Saturday/month	11 paid 100 volunteers	1×/month	Shelves and refrigerators	75	1,000	112,000

prepare healthy meals in their own lives but simultaneously worried about being perceived as judgmental about nutrition. They also worried about being able to source enough healthy foods to keep the "green" shelves full. Facilitators and barriers to implementing a nutrition rating system in food pantries were often expressed concurrently within the following themes.

Staff Responsibility Combined with Reliance on Donors

In each focus group, food pantry staff began by describing their pantry. They reported the various ways they obtained food and described the food and beverages frequently available to them. Participants generally felt that their pantries did a good job of offering a variety of food and noted that healthy foods were available, if not predominant. One person noted, "*There are a few things we provide for the families that are really healthy.*"

Participants viewed themselves as having an important role in improving the pantry's inventory, with 1 staff member saying, "*Really to me it feels like it's on us, what we buy, not what they choose.*" She went on, however, to point out the constraints she faces when stocking their shelves, "*And a lot of what we buy is what's available and what we can afford.*" The role of the food bank was also highlighted in the comment, "*… big picture, this would all be so much easier if the food available, not just to us, but to the [food bank], was more green than … yellow or red.*" Another participant started by pointing out her responsibility in making ordering decisions but ended up with a question of educating donors:

> *I think that for me personally … that would help me think about it, from a systemic perspective … so then how do we make a decision, when we're ordering from [food bank]? But what we will try to do is jellies or jams that are more whole fruit and have no or very little sugar added. You know, that kind of a thing. And, can we do that? Can we figure out a way to drive donations of certain products by educating our donors?*

Relationships with Clients

At each pantry, staff described how they engaged with clients during visits. In most of the pantries, staff accompany clients while shopping and help them retrieve and bag their selections. During this time, staff get to know their clients personally. They learn the client's background, family size, cultural and personal food preferences, cooking knowledge, as well as their health problems. Based on their relationships with the clients, they believed that many clients would like a nutritional rating system in the pantry. One person said, "*I would think it would be helpful. I think they would appreciate this information.*" Another added that this would actually enhance client choice: "*So that they can see what's healthy and what's not. If they can see what's more healthy, then it's a bit more choice.*"

Food pantry staff pointed out that some clients are already health conscious individuals who choose healthy items such as fresh produce and read labels so that they can pick canned goods low in salt and sugar. One participant said, "*We do get some clients that are very much about the health aspect of it.*" Staff further explained that some clients focus on salt or sugar due to medical issues by saying, "*A lot of them don't eat sweets. A lot of people are diabetic, who come in*" and "*Some of them have had cancer and they can't do things that aren't healthy at all.*"

Interestingly, it was important to 1 staff member to communicate that clients were always grateful for the food at the pantry, even if it was not as healthy as they liked. This person explained, "*They're not gonna complain about not having a healthy choice, they just won't pick … They just won't pick something that they deem unhealthy.*"

Although some clients may shy away from unfamiliar foods, others are open to new ideas. One focus group participant highlighted her own efforts to share ideas with clients about how to use the healthy ingredients that were available by pointing out, "*But some are very interested. And if you offer them suggestions, a lot of them are very willing to accept those suggestions.*" Another provided this example:

> *We have spaghetti squash over there as a choice and I say, have a squash! And they say "I don't know what to do with it." And I say, cut it in half, take the seeds out, stick it in the oven, for … 45 minutes. When it's done you scrape it out with a fork. And I say, it's just like eating spaghetti!*

Staff members and volunteers noted that nutrition ranking might reinforce the healthfulness of culturally preferred foods, as many of their clients come from culinary cultures that prefer fresh produce to canned goods. One person pointed out, "*[Spanish clients] gravitate toward, you know, the holy trinity: onions, peppers, squash ….*" Another member noted some vegetables are either in high demand or hard to move, depending on the ethnicity of the clients at a specific pantry:

> *I found with the eggplant though, a lot of it's cultural. There are pantries that see a lot of people that cook. A lot of people. It's just familiarity and for some reason eggplant is the one that—I know it's in Asian food, and Italian food for sure. Across the board though I keep hearing eggplant, it's so funny.*

Familiarity with Rating Systems and Implementation Needs

The participants were familiar with nutritional rating systems. They reported seeing examples in grocery stores such as a traffic light color-coded system or star systems where more stars indicate healthier items. Due to these experiences, staff could envision incorporating a system that would provide information for both staff and clients. They liked that the colors of a traffic light are easy to interpret. One person commented, "*I think colors are better. Because everybody knows green is go, yellow is slow down and red is stop. With stars, it's, is one star good …?*"

The staff and volunteers pointed out that implementing a system that placed food on shelves by nutrition category would require multiple changes to how the pantry operates. There would be changes to the types and quantities of food and beverages obtained from the food bank, the shelves would need to be organized differently, and foods would need to be reorganized on the shelves. They were concerned about the lack of physical space to sort and rank food and adequate shelving relative to other types of food outlets that have made structural changes to promote healthier food options:

> *I think we have limited space. I mean if we were [a major grocery retailer] we could organize it with an organic section [laugh] or whatever. But we have limited space, we can't really alter how they're organized, the products are organized as much, as far as I can tell.*

Staff pointed out that the system needed to be simple; 1 person said, "*It's gotta be simple. We're dealing with people who will see it and probably ask us questions about how come this is up here now.*" In addition, they noted that supporting materials, such as signs and food labels, would be necessary to help clients understand the system and influence their food and beverage choices. One person explained, "*We also need printed material before they get into the food pantry with any kind of system in place.*"

Scarcity in Food Pantries

Several food pantry staff and volunteers expressed concern over scarce resources to keep the pantry running and the fear of promising more than they can deliver. One person shared, "*We have to think if we put up a sign that said, 'this is heart friendly,' we have to be sure we have food to put in it. A selection. Sometimes we don't.*" Another staff member put it simply: "*We never say no to food*" and a director spoke to the pressure of selecting free or low-cost items from the food bank, regardless of the nutritional quality when she said, "*If I have to pay thirteen dollars a case versus nothing, I'm gonna pay for the one that doesn't cost anything.*" One participant noted their reliance on donations and food banks, emphasizing how the amounts fluctuate throughout the year:

> There have been times in the past … where giving is not exactly the forefront of peoples' minds. You'd be able to hear an echo in the room. Not so much anymore on the produce because we are getting the regular deliveries from [a grocery retailer], we have that relationship with them ….

An additional concern about implementing a nutritional rating system was that it would require more staff time to stock shelves, taking time away from other tasks. One participant drew connections between her concerns with implementing a nutrition rating system and the fact that clients are accompanied by volunteers while shopping and there are limits to what each person can take:

> See my idea … is that they're with the volunteer so that the volunteer can then help guide them. Answer any questions they may have and you know … we really simply guide them through so that we can make sure they're getting what they need. But also … we have to make sure that they stick to the limit because they're only 1 of 300 we're helping. That's why we do limits. So that everybody gets something.

Moderators of the Impact of Nutrition Interventions

Participants pointed out that the language barriers that exist between themselves and some clients could potentially complicate explaining the nutrition rating system. One participant said, "*You know, sometimes I ask if they're bilingual, who speaks English. We try to translate to them, but unfortunately, we don't speak Creole. Right?*" Participants also worried about not being able to "move" healthy items that are packaged in a way that clients view as less desirable:

> I think that even if it's healthy, like the vegetables, they can be green for no salt added. Like canned spinach no salt added … they say I don't wanna eat anything that's in a can.

Volunteers and staff stressed the importance of remembering that if the nutrition rating system is implemented, a client may want to take a green food but will not for reasons unrelated to nutrition. One staff member noted

several relevant challenges that arise when working with individuals with very limited income:

> Another issue that we have run into is very simple things. There have been a few people that come in and don't want canned goods because they don't have a can opener! Or they don't have refrigeration …. Or they don't have a place to cook if they're in a rooming house. They only have a little cooktop, if that. Or they don't have a microwave. So you have to be sensitive to their ability to handle this food and just storing it, you know.

Another noted oral health problems: "*The other thing, can I mention, is that we have to be concerned about our clients … A lot of them can't chew the food.*"

In addition to barriers in eating, preparing, and storing fresh food items, volunteers and staff pointed out transportation issues that clients have to consider when choosing food items. One participant noted, "*Sometimes people are walking or taking public transportation and they simply … can't carry everything,*" and another said, "*A few ride a bicycle, a couple of people that we serve. So they are limited in what they can take.*" Interestingly, they noted that some fresh produce is packaged in a manner that might deter clients from selecting it. For example:

> If you give them those big plastic things of salad, those organic things, they put it in a giant plastic container, which I don't understand—that takes up a lot of space. Then it's just difficult to carry it.

The Priority Is to Alleviate Hunger

From the perspective of some volunteers and staff members in the study, clients choose items to address hunger before their nutritional or health needs. One participant commented on how clients approach supplementing food and nutrition assistance benefits to meet their monthly needs:

> Well, sometimes they take stuff that is more filling. You know. They're only here once a month. You know if we happen to have a box of cookies that's got a lot of—they're gonna be able to eat it over and over again—or kind of smart about pricing. Some of them have food stamps if not all of them. And they'll say "I know that I can get this. I've got money for this but I can't afford this" in the grocery store. So, they might buy something that they see on the shelf that's more expensive than, you know, their dollar.

Interestingly, some participants viewed the need to address hunger as inconsistent with the goal of promoting healthier options. One person said, "*I don't think they think first of food as a means of health … If that's what you're getting at. Food is survival.*" Another added, "*And don't forget a lot of the people coming here, food is something they really need. So rather than look at*

the—what is healthy—they're thinking of meals on the table to feed their family." Another added,

> I think most clients are looking for what is easy to cook, they are familiar with, and what they can stretch. A lot of our clients aren't really concerned about the nutrition of it. We need to feed our family, and you know, this gigantic can of chicken noodle soup will do that.

Food Police and Moderation

Multiple staff and volunteers voiced concern about being perceived as too heavy handed with nutrition advice. One person said, "*We do not wanna be the food police and tell people what they should and should not eat.*" They were particularly concerned about how they would explain the presence of foods labeled as red. For example, 1 person noted, "*But then we have a contradiction here.*" She went on, imagining a client might ask, "*if we shouldn't have this, why do you have it here?*" In response, another participant explained, "*And that might be a question, why we'd put it out if it's a red light? And then, that's when you say, in moderation …. It's okay.*" Other staff members reflected on the importance of including a written explanation for why a food is not a healthy choice, such as "high in sodium" or "high in sugar" noting,

> The text is important to … sort of clarify why. And to educate people. They can take the information with them when they go, rather than, oh this one's red. Don't do it … And not know why.

Another person highlighted the importance of including the word "choose" and recommended that red foods should be marked as treats: "*I like the 'eat as treats.' So it's not cutting people off completely. Just be more selective with that. And then the word 'choose' is important I think. It gives people the option, sort of.*"

Discussion

One key finding from this study is that volunteers and staff are gatekeepers who can accelerate or inhibit the effect of nutritional interventions in food pantries. It was evident from the extensive comments about individual client needs and experiences that food pantry staff know their clients well. This may be because the volunteers in this study interact with clients while they shop. While the primary purpose of shopping with a client is to provide practical and logistical support (e.g., hold their bags while they shop and let them know how many items they can take per food category), it was clear that much more happened during these interactions. Focus group participants described using their time with clients to provide recipe ideas and food recommendations based on very personal needs, including oral health, medical needs, and access to food preparation equipment. This result is consistent

with prior research documenting the importance of client–volunteer inter-actions in pantries.[8,9] The implication of this finding is that the personal connection food pantry staff and volunteers have with their clients can provide valuable insights in shaping nutrition interventions.

Beyond gaining insight regarding the significance of client–volunteer interactions in the context of developing nutrition interventions for food pantries, results of this analysis also indicate that pantry staff's chronic fear of not having enough food in the food pantry can influence their receptivity to these efforts. Notably, this fear of scarce resources among pantry leaders mirrors the experiences of the clients. Even though these 6 pantries were consistently able to meet the needs of the people who came to them for help, anxiety about scarce resources permeated the discussions. The idea that one must choose between good nutrition and simply getting "enough" food emerged as both a client experience and a food pantry director experience. This is consistent with the work by Chapnick et al., who found that pantry staff felt that the priority was "keeping the shelves full," which created a barrier to the provision of healthy food.[5] In some pantries, this may be a concern, but in many pantries, it is not. Researchers working in food pantries must be sensitive to the fear of scarcity and work with volunteers and staff to develop contingency plans for the intervention if this concern is prohibiting their willingness to try it. For example, providing resources specifically to ensure that there are some foods on the "green" shelves during the pilot phase of the intervention may help to overcome this hurdle.

It is also worthy to note that food pantry staff and volunteers addressed a number of reasons why a nutrition rating system might successfully lead to healthier choices among pantry clients, and alternatively, why it may not. The participants emphasized how many clients do care about nutrition, particularly due to diet-related illnesses. This is consistent with the findings by Dave et al.[25] indicating that food pantry clients are particularly concerned about nutrition, obesity, and chronic illnesses. In contrast, pantry staff and volunteers also discussed several reasons why clients might not select a healthier option, such as lack of adequate transportation, cooking equipment, or poor oral health. These findings reinforce previous research documenting clients' unique chal-lenges from the perspective of pantry leadership.[5,7,25,26] Importantly, these challenges might not be immediately obvious to researchers designing nutrition interventions for these spaces. Thus, after a system is implemented, it is critical to address these types of issues, such as ensuring that there are products that are easy for clients to carry or simple to prepare if they lack cooking equipment.

The results of this study also highlight the importance of recognizing that clients come from different cultures, and nutrition interventions must be adapted appropriately. Participants stressed the practical issue of making sure that all materials are either interpretable without words (i.e., a stoplight with green, yellow, and red) or translated into all of the necessary languages for

the pantry clientele. In addition, there was the recognition that it is important to have "green" foods that are also culturally appropriate. Furthermore, although some foods may be ranked at the highest level in terms of nutrition, if they are not commonly consumed within a client's culture, it will be difficult to promote that food.[5,9]

Although the conversations in all of the focus groups were civilized and constructive, not everyone agreed on all points. One of the concerns that was expressed more strongly by some individuals than others was the fear of being seen as the "food police." These feelings became evident in the discussion of the color red on the stoplight. Some people disliked the color red and would have preferred to have green, yellow, and no color at all. Others accepted the color red but did not like having any words with it because they felt that the words sounded negative. Most of the groups managed their discomfort by recommending words such as "moderation" and "treats," which sounded less pejorative to them. The implication of this finding is that it is important for anyone creating a nutrition guidance system for use in a food pantry to take great care in managing the communication around foods to discourage. Furthermore, it is crucial to work collaboratively with the specific pantry to ensure that the messages are acceptable to the people who will be held responsible for explaining them to the clients.

Limitations

The generalizability of this study is limited because we used a convenience sample rather than a random sample of pantries in the state. Relatedly, since the food pantries recruited their own staff and volunteers, we do not know the total number of people who were approached to participate in this study. In addition, while the 6 pantries we studied serve a racially and ethnically diverse clientele, there are still many groups that live in this state and nationally that were not represented. Furthermore, the majority of the pantry staff who participated were older, white women, so their views may not be representative of other groups of volunteers. Finally, these focus groups were limited to staff and volunteers, so key findings from this study do not reflect the perspective of other key stakeholders such as clients, health-care professionals, or community organizations.

Conclusion

This study illustrates how and why to engage food pantry staff and volunteers prior to implementing a nutrition intervention. These discussions provide information about how to tailor the approach and materials to the needs of each particular pantry. Through these conversations, staff can express their concerns and the research team can work with them to problem solve. For instance, nutrition

interventions in pantries might be coupled with vouchers or referrals for clients with a lack of reliable transportation or cooking equipment. Another option might be to incorporate nutritious food items that are lighter to carry or easier to chew for clients with oral health challenges. By engaging staff from the outset of an intervention study, possible barriers and challenges can be identified and managed, increasing the potential positive impact and sustainability of the intervention. Future research should explore best practices for engaging clients and healthcare professionals (e.g., dietitians, nutrition educators, nurses, and physicians) in the development of nutrition interventions targeting food pantry clients.

Conflicts of interest

The authors report no conflicts of interest.

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