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Barriers and facilitators to the consumption of fresh produce among food pantry clients

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ABSTRACT

Increased provision of fresh produce is considered a potential way to support healthier diets among food pantry clients. Using a qualitative approach, the focus of this study was to investigate the barriers and facilitators to the consumption of fresh produce, brought forward by food pantry clients. Four focus groups and nine household interviews were conducted with food pantry clients in the Tampa Bay Area in April–May 2017. Our results indicate that increased provision of fresh produce in food pantries does not necessarily equal increased consumption of fresh produce among clients. Clients face several barriers to utilizing fresh produce, including poor quality of fresh produce, irregularity of food supply, lack of skills to prepare certain type of fresh produce, and lack of choice. Facilitators to consuming fresh produce are also discussed, including positive emotional experiences at the food pantries, and the role of relatives in increasing the consumption of fresh produce at the household level.

KEYWORDS

Food pantry; food insecurity; fresh produce; healthy eating; nutrition; qualitative research

Background

The number of food insecure people, defined by not having access to or not being able to afford enough nutritious food for at least part of the year has remained strikingly stable in the United States in the past 20 years.¹ Federal statistics on food insecurity have been published since 1995. At that time an estimated 12% of people were food insecure; in 2015, that percentage is 12.7%.² Food insecurity is often intergenerational and is associated with various adverse health outcomes and chronic conditions, including diabetes and obesity.^{3–11}

Food pantries have for decades served the purpose of alleviating the often chronic condition of food insecurity. Today, approximately two-thirds of food insecure people in the United States regularly receive assistance from food pantries, soup kitchens, or shelter-based services.¹² Throughout their history, food pantries have also been subject to critique. Criticized for institutionalizing the hunger problem instead of tackling upstream causes

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of economic and social inequalities, food pantries have also been under scrutiny for exacerbating health conditions of their clientele by providing unhealthy foods.^{13–15}

As a result, many food pantries today pay increasing attention to the nutritional quality of foods and have programs aimed at increasing the amount of nutritious products, in particular fresh produce, in donated food.¹⁶ Food pantry clients themselves have in many cases expressed a wish to receive more fruits and vegetables instead of processed and packaged foods.¹⁷ How the increased provision of fresh produce is perceived by food pantry clients has yet to receive attention in research. Previous studies report that the majority of U.S. food banks are committed to nutrition.^{18,19} For example, Feeding America, one of the largest umbrella organizations for food banks in the country, has a program “Foods to encourage,” which emphasizes the nutritional quality of foods through communication to their partner agencies.²⁰ The assumption underlying many of these nutrition-based initiatives is that increased provision of healthier foods leads to increased consumption of these products.

However, simply increasing access to healthy foods, in particular for low-income households, is not enough to increase their consumption.²¹ Instead of merely measuring objective access to healthy foods, studies should also pay attention to realized access and use experience-based indicators in order to identify the multiple barriers to the utilization of foods given out by food pantries.²² Behavioral, individual, cognitive, and social barriers to healthy eating have not been as widely examined as have environmental ones, despite their importance to decision-making on eating.²³

We theoretically align ourselves with other scholars who call for a multidimensional and holistic assessment of food insecurity at the household level, emphasizing factors such as cultural and social acceptability of food, acceptable ways of obtaining food, as well as the psychosocial meaning of being food insecure.^{24–29} For example, family influences on food choices may help to explain why some socioeconomically disadvantaged individuals eat healthier than others despite having similar access to foods. Also, seemingly simple things, such as whether clients perceive food pantry food items to be easy to prepare, familiar, culturally suitable, and filling, affect the actual utilization of donated food.²³

Furthermore, healthy food interventions by food pantries may work most efficiently when they are combined with other services, such as health education, and community programs. Clients may also benefit from the option to pick out food items themselves instead of receiving them in a prepackaged box, giving them agency over their household’s food and a more dignified position in the choice model.^{17,30}

We identified a gap in the literature in assessing and understanding the barriers that exist along the food assistance chain from the point of acquisition through the point of household utilization, particularly for fresh produce.

Against this background, our primary objective was to answer the following research question: What are the barriers and facilitators cited by clients and client households to consuming fresh produce, in other words, what happens to fresh produce once it leaves the food pantry?

Methods

Four focus groups were conducted with food pantry clients in the Tampa Bay Area in late March and throughout April 2017. Total number of participants was 33, with the number of clients in each focus groups ranging from 6 to 11. All focus groups discussions took place on location at the food pantry the clients were visiting. All food pantries were partner agencies of Feeding Tampa Bay, a sponsor of this study. A contact person at Feeding Tampa Bay helped identify pantries that would be willing to host a focus group. Managers at the suggested pantries were contacted by the researchers via email or phone. Once the pantries had agreed to host a focus group, the managers assisted the researchers in recruiting clients by spreading the word about an upcoming study. Additionally, clients were recruited randomly at the time of the food distributions by the researchers.

The focus groups were all held in private rooms, ranging from classrooms and conference rooms to sanctuaries and storage spaces. To enhance interaction, participants were seated on chairs in a circle in all focus groups except one in which such an arrangement was not possible due to the nature of the study setting. A set of structured, open-ended questions were used to facilitate the discussions (Figure 1). The questions were chosen by consulting the literature on similar studies and related to clients' experiences visiting that food pantry, food availability, the quality of food, fresh produce availability and use, and food preferences.^{18,31–33} Probing was used as needed to stimulate discussion.

Additionally, follow-up interviews were conducted with participants from the focus groups. At the end of each focus group, participants were invited to leave their contact information on a sign-up sheet. Nine individuals signed up for follow-up interviews which were completed in the participants' homes. The purpose of these interviews was to complement the focus group data. The household interviews followed the same interview protocol as the focus groups, however, additional information was asked regarding sociodemographics, chronic health conditions, and whether clients primarily visited food pantries that gave out prepackaged boxes or those that offered client choice.

Participants in both the focus groups and the household interviews received a \$10 gift card to a local grocery store. The study was approved by the Institutional Review Board of the University of South Florida (IRB Pro#00029230).

- Tell us what you know about people's experiences in using this food pantry?
- What other services does this food pantry provide?
- What do you know about the experience of using these other services?
- What kind of foods does the food pantry provide?
- What do people think about the quality of foods that are given out? Please provide examples of the different foods and their quality.
- Do you think people get enough food from the pantry to meet their needs?
 - What foods do you think people need more of and why?
 - What foods do you think people need less of?
- Does the food pantry give out fresh produce?
 - How often is fresh produce given out at the food pantry?
 - What do people think about the quality of fresh produce?
 - What do people usually do with the fresh produce?
 - How do people usually prepare fresh produce at home?
 - Who usually eats this fresh produce?
- What are the most important things that determine what people eat at home?
- What are the most important things that determine what meals are cooked at home?
- What foods or products from the food pantry are more likely to be thrown away by people? Please explain why.
- What do people most like about this food pantry?
- What do people think could be done better at this food pantry?
- Is there anything else you would like to add?

Figure 1. Focus group and household interview questions.

Data analysis

Recorded focus group discussions and household interviews were transcribed verbatim. Transcripts were uploaded to Dedoose (version 7.6.6), a web-based application for qualitative data analysis. Transcripts were inductively coded using the method of exploratory content analysis.^{34,35} Codes ranged from setting-based (practices at the pantry, practices at the household) and food based (clients' opinions about food) to relationships and social structure (interactions with food pantry volunteers and other clients) and ways of thinking about people and one's own situation (feelings evoked by being food insecure). To avoid overrepresentation, if a particular topic was mentioned by the same participant several times, the code was applied only once. After the initial coding process, codes were categorized under larger themes, confirmed by field notes taken throughout the data collection process. To increase the validity and reliability of the data, the researchers in this study all agreed upon the identified themes.³⁶ The judgment used in the coding process was based on the objective to find repeating patterns that spoke to the research questions at hand. Verbatim quotes from food pantry clients were added to the results to highlight key issues. The most commonly occurring themes are presented in the results below.

Results

The clients in our study reported they regularly received fresh produce from the food pantries they visited. However, clients also reported significant variation in the type of products they received, and having increased provision of fresh produce did not equal increased consumption of produce. Clients faced several barriers that affected the utilization of fresh produce provided by food pantries. The results are summarized as the most pertinent themes from the two methodologies, accompanied by a summary table with relevant excerpts from the transcripts (Table 1). The demographic information from the household interviews is summarized in Table 2.

Poor quality of fresh produce

Poor quality of fresh produce was the most frequent theme identified as a barrier for not being able to consume fresh produce despite having frequent access to it (Table 1). Clients described the produce as often being “overdone,” “expired,” “rotten,” or as something that “used to be fresh.” Due to the perishable nature of the fresh produce, a lot of it ended up going to waste at the household level. Overall, any fresh produce received from the pantry had to be prepared right away.

Although clients were grateful for the food they were provided, they expressed concern about receiving bruised or rotten products they thought were unlikely to be consumed by the people who packed them in food pantries. Poor handling of fresh produce, including refrigerating fruits that should be stored in room temperature, and packing fruits and vegetables at the bottom of a box filled with cans, were mentioned as additional reasons for receiving poor quality fresh produce.

In general, products that lasted longer and were of good quality were considered valuable. Throwing away food was considered shameful. However, when asked which products clients were most likely to throw away, fresh produce, in particular bagged salads and lettuce, topped the list.

Impact of inconsistent food supply and cooking skills

Irregularity of food supply was a barrier to the consumption of fresh produce as it made meal planning difficult. Planning meals in advance was challenging for clients because of the great variability in products given out by food pantries and because of not knowing in advance what pantries would provide each week or month. As a result of this inconsistency, clients reported visiting several food pantries to meet their food needs and preferences. Products received from the food pantry rarely constituted ingredients for a

Table 1. Summary of study results.

| Theme | Number of Times Mentioned* | | Example Quotes |
|--|----------------------------|----------------------|--|
| | Focus Groups | Household Interviews | |
| Poor Quality of Fresh Produce | 17 | 7 | "There's so much rotten food that at some point I just get frustrated." "You get that bagged salad. It's got liquid in the bottom. So it's beyond. Slimy. And, so yeah, I mean sometimes it's... they need to stop and look and say would I eat this?" |
| Impact of Inconsistent Food Supply or Cooking Skills | 13 | 7 | "They give you some meat and nothing to go with it. They give you lots of sugar and stuff, nothing to go with that. They give you some starches, they don't go together. So I have to go to the store and fill it in." "Every time I get an eggplant I'll just give it away. Until eventually one of them, the person I gave it to, I just stopped by her house. She was cooking and I tasted it. Wow, it was good. So I said: 'How did you do this?'. And she tells me about it and I look at the paper they gave me at the food pantry. So I tried and hey, I'm eating my eggplant every week." |
| Lack of Choice | 16 | 6 | "Like, I'm loaded with spinach all day, and I don't like it." "And that's the problem with the food bank, they give food, they feed these people, but they're not getting a lot of protein. That's not their fault: at least they're keeping you from starving. I'm not complaining about it, I'm just saying, you don't get what you really need." |
| Role of Relatives | 8 | 8 | "Since I got my grandkids, I want to teach them about beans. Beans is a good food. And the way I cook, I want them to learn how to enjoy beans. Cooked grandma old way, I want them to understand how important their vegetables are." |
| Emotional Aspect | 18 | 8 | "Also, I've never seen anybody my whole time coming here being treated with anything but respect. The workers here have the utmost respect for clients coming in." |

whole meal and needed to be supplemented by additional products from the grocery store, and those who could afford it, used this strategy.

Being able to adapt to the foods received and being inventive in cooking was important.

Staples such as potato were considered valuable because of their longer shelf-life and functionality in multiple meals. Fresh produce had to be prepared immediately or frozen to stretch it to last a longer period. Some clients felt very confident about their cooking skills ("every man can cook an onion"), using the Internet and searching Google for online recipes to learn how to prepare a type of produce previously unknown to them, such as an eggplant.

Table 2. Summary of household interview demographics.

| | | |
|-----------------------------------|------------------------------|---|
| Gender | Female | 7 |
| | Male | 2 |
| Ethnicity | African-American/Black | 4 |
| | White Caucasian/Non-Hispanic | 4 |
| | Hispanic/Latino | 1 |
| Marital Status | Married | 2 |
| | Widowed | 2 |
| | Divorced or Separated | 5 |
| Household Income | <25,000 | 7 |
| | 25,000–49,000 | 1 |
| | 50,000–74,000 | 0 |
| | 75,000+ | 1 |
| Educational Attainment | Less Than High School | 2 |
| | High School Diploma | 3 |
| | Some College | 2 |
| | College Degree | 2 |
| Employment Status | Not Employed | 9 |
| | Employed | 0 |
| Type of Home | Single-Family Home | 5 |
| | Apartment | 4 |
| Home Ownership | Owner/Occupier | 1 |
| | Renter | 8 |
| Living Arrangement | Living Alone | 2 |
| | Living With Others | 7 |
| Access to Transportation | Yes | 9 |
| | No | 0 |
| SNAP/WIC Recipient | Yes | 6 |
| | No | 3 |
| Health Conditions | Diabetes | 3 |
| | High Blood Pressure | 6 |
| | Heart Condition | 6 |
| | High Cholesterol | 2 |
| | Other Condition | 1 |
| Food Pantry Visitation Frequency | Several Times a Week | 1 |
| | Once a Week | 2 |
| | A Few Times a Month | 4 |
| | Once a Month/Rarely | 2 |
| Type of Pantry Visited Most Often | Pre-Packaged Box Pantry | 4 |
| | Choice Model Pantry | 2 |
| | Combination Pantry | 3 |

However, clients also mentioned that not everyone had access to the Internet or a phone. Women in the focus groups also mentioned a concern for men who may not be as familiar with cooking, especially those men who lived alone and cooked the same things over and over again. The role of social support networks was considered important in increasing one's know-how on preparing meals. In general, clients were open to enhancing their cooking skills because that was considered necessary in order to survive, and it was also a way to get around the poor quality of the fresh produce since bruised fruits and vegetables could be used in cooking by those who knew how.

Lack of choice means clients have little say in what they get

Clients had individual preferences that acted as barriers for consuming the fresh produce they received from the pantry. In general, there was a disconnect between what clients preferred to eat at home and what they received from the pantry. Being “loaded with spinach” although one did not prefer spinach resulted in wasted food.

For families, what was cooked at home depended partly on children’s preferences. Children were mentioned to have very particular favorites, and these were often simple carbohydrates such as white bread, cereals, noodles, nuggets, and fries. “Kid-friendly” packages from the food pantries included sugary products such as donuts.

Although fresh produce was considered an important part of a healthy diet, some clients also stated that they would prefer to receive more meat from the pantries. A healthy diet was considered to be a diet devoid of too many sugary products and carbohydrates, and having enough protein, frequently equated with meat. Clients also expressed that they were not in a position to complain about the lack of choice because “beggars can’t be choosers.” Clients considered it rude to complain about the products and expressed that there was very little the people working at the food pantry could do to improve the situation.

Role of relatives

The household interviews revealed a potentially important facilitator to healthier eating: grandparents. Four of nine of the persons interviewed in their households were grandparents and shared housing with their children and grandchildren. They brought forward the importance of teaching their grandchildren how to eat and cook healthy. In many cases, the grandparents were the ones responsible for planning most of the meals in the households. They considered themselves responsible for teaching their grandchildren to cook basic foods, how to make food stretch, and how to incorporate fresh produce in meals.

Visiting a food pantry is often an emotional experience

Having a positive emotional experience at the food pantry could potentially act as a facilitator to healthier eating at the household level if clients felt that they could return to the pantry without losing their dignity or respect. A common reason for not going back to a particular pantry was the way in which its staff had treated the clients. Dignity and respect were mentioned as important in order for one’s “self-esteem to be intact.” It also mattered whether or not the food pantry was kept clean. Although some expressed

shame for having to visit a food pantry, many mentioned that going to the pantry was not just about food but about meeting people. These informal social networks also played an important role in enhancing one's cooking skills as clients could share recipes and swap products.

Discussion

It is challenging for those who depend on food pantries for their daily food to maintain a healthy diet. Therefore, increased provision of healthier foods, in particular fresh produce, remains an important avenue for improving the health of individuals and families who are food insecure.³⁷ Yet, what happens to this fresh produce once it leaves the food pantry is not fully understood.

Our results bring forward several food pantry clients' perspectives regarding barriers and facilitators to the utilization of fresh produce. These barriers include poor quality of fresh produce, irregularity of food supply, not knowing how to cook a certain type of fresh produce, and not having a choice in what products one takes home.

For food pantries, increasing the amount of fresh produce in distributed food comes at a cost. Due to the perishable nature of these products, there are additional logistical constraints which often add an extra burden on agencies many of which operate on a volunteer basis.¹⁹ Studies such as this can offer insights into how these efforts can better be improved.

Increase in fresh produce is not enough

These results confirm what other studies have found that simply increasing provision of fresh produce is not enough to encourage healthier eating behaviors. In other words, how people maintain healthy eating habits in their everyday lives is a combination of multiple factors in which access to fresh produce is only one.^{38,39} The impact of increased access to fresh produce in food pantries may need to be evaluated from a more holistic perspective, taking into account various factors from the client's perspective and at the household level.

View diet as a whole

While fresh produce constitutes an important part of a healthy diet, other scholars have also pointed out that food banks should view diet as a whole and make efforts to increase the amount of low-fat dairy, lean meats, or whole grains.¹⁹ Additionally, even when the amount of fresh produce is increased, snacks and sugary beverages may still form the lion's share of calories distributed.⁴⁰ There are, however, several avenues for interventions.

Provide non-food nudges

The health objective of increasing the amount of fresh produce may be more effective when it is coupled with other activities at the food pantry. Promising results have been achieved through cooking classes at food pantries, and many pantries distribute recipe cards.⁴¹ We encourage scholars and practitioners to explore nutrition education options where clients would be in charge of designing and organizing cooking classes at the pantries. Based on our focus group discussions and household interviews, clients often know each other. The dissemination of new information, such as recipes, may have longer lasting effects if it is channeled through these informal social networks.

Trainings can also be offered for food pantry staff on how to sort and store fresh produce. This may be an effective way to not only offer clients a variety of foods with better quality, but also to make sure food safety standards are not compromised.

Explore choice model

Additionally, as clients often receive fresh produce that they do not prefer, choice model pantries may lead to better utilization of healthier foods. Although choice model pantries are not without their problems and may also lack culturally sensitive food, there are multiple reasons for encouraging a shift towards choice model pantries in the United States, as they may offer a more dignified experience to the client and may lead to less wasted food.^{12,30}

Engage relatives as allies

Grandparents can play a potentially important role as advocates of healthier diets and consumption of fresh produce in households. Due to a very limited sample size, this notion about the grandparents' role needs further corroboration, but the role of relatives in healthier eating remains an understudied area and may offer a worthwhile direction for future studies looking into the intergenerational aspect of household food insecurity.

Recognize emotional component

Finally, more in-depth studies may be needed on the emotional responses and experiences of food pantry clients, as well as the volunteers and staff who run them. These emotional aspects may act as barriers or facilitators to healthier eating, especially if receiving poor quality food is coupled by clients with their deservingness of such food. The fact that clients felt that they should merely feel grateful and not complain about anything reflects a larger issue of a lack of a human rights approach to food security.⁴² If food is

considered charity and not a human right, interventions highlighting client choice may not always be easily accepted by food pantry managers. More studies may be needed on why a shift to choice model pantries is happening in some parts of the country more rapidly compared to others.

Additionally, clients are likely to return to those pantries where “people are nice,” indicating that clients would in some cases even prefer not to receive food if the emotional experience of that process left them feeling stressed or hurt. Previous studies suggest that being treated in a paternalistic way may act as a barrier for healthier eating.³⁹ Such findings may be useful to food pantry managers or other practitioners interested in the effectiveness and sustainability of food insecurity and public health interventions.

Limitations

Our study population is small and limited to South-Central Florida; therefore, it does not necessarily represent the realities of other geographic areas. There were also challenges with conducting the focus groups, as many individuals were interested in participating in the discussions as quickly as possible. In some focus groups, children were present, which was unavoidable based on the nature of this research and recruitment process. Additionally, there were individuals who did not speak often in the discussions. However, this is expected in a focus group setting.⁴³ It may have been informative to organize separate focus groups with clients of choice model pantries and clients of pantries that offer prepackaged boxes to compare experiences. Although in reality, many clients visit several food pantries and are not attached only to one.

This study has contributed to the new body of knowledge on increasing healthy food options, in particular fresh produce, in food pantries. By investigating the barriers and facilitators to healthier eating from the perspective of food pantry clients, we have attempted to bring forward the voices of those who are not typically represented in public discussions related to food insecurity. In light of this, we encourage scholars to engage in research that accounts for the multiple historical, social, political, and environmental factors that may lead to intergenerational and chronic food insecurity in the United States, including studies with a critical race perspective.

Conclusion and recommendations

There is no doubt that the efforts made by food pantries, often largely run by volunteers, are important for the thousands of people experiencing food insecurity in the United States. However, it is pertinent to bring forward the voices of the actual end users of donated food. Our study involving food

pantry clients in the Tampa Bay Area in Florida, USA, suggests that despite increasing efforts of food pantries to provide more fresh produce to support healthier diets, food pantry clients face several barriers to actually utilizing this produce in their daily cooking.

The barriers identified by clients in this study include poor quality of the fresh produce, irregularity of food supply, lack of skills to prepare certain type of fresh produce, and lack of choice. However, there are also facilitators which may provide avenues for intervention. A transition to choice model pantries, which are already used in some parts of the United States and even our study area, should be further encouraged as they may offer a more dignified experience to the client as well as an opportunity for the client to choose food that they prefer and know how to cook.

Furthermore, clients remain open towards enhancing their cooking skills. The best avenue for this may be through informal social networks, and food pantries may benefit from cooking classes that are designed by clients for clients. The intergenerational aspect of food insecurity may be better tackled if scholars and practitioners are aware of what is going on in the client's household, including the positive effect that grandparents may have on children's healthy eating habits. More studies are needed on the emotional aspects of visiting and running food pantries, as they may act as barriers or facilitators to healthier eating among their clientele, especially if healthy, nutritious food is considered charity and not a human right.

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