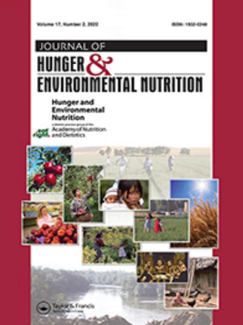

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Food Pantry Clients' Needs, Preferences, and Recommendations for Food Pantries: A Qualitative Study

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ABSTRACT
A qualitative formative approach was used to explore food pantry clients' needs, preferences, and recommendations regarding food received from food pantries. Fifty adult clients of six Arkansas food pantries were interviewed in English, Spanish, or Marshallese. Data analysis used the constant comparative qualitative methodology. In choice and minimal choice pantries, three themes emerged: clients need increased quantities of food, particularly more proteins and dairy; clients desire higher quality food, including healthy food and food not close to expiration; and clients desire familiar foods and food appropriate for their health needs. System level policy changes are needed to address clients' recommendations.

KEYWORDS
food pantry; food preferences; charitable food system; food insecurity; chronic disease

In 2019, 35.2 million people (10.9% of households) were food insecure in the United States (US).[1] Food insecurity is associated with increased risk for many chronic diseases, including type 2 diabetes, hypertension, coronary heart disease, cancer, and asthma.[2–5] In 2019, 27.7% of US households with food insecurity accessed food pantries to meet their households' food needs.[6]

Food pantry clients, most of whom are food insecure,[1] experience economic risk factors associated with negative health outcomes.[7–10] Food pantry clients frequently engage in economic trade-offs between health care and/or medication and buying food.[7,10–12] Food pantry clients experience a poor diet quality,[13,14] and many food pantries do not provide food of adequate nutritional quality to support a healthy lifestyle.[15–17] For these reasons, food pantry clients have increasingly become a focus for interventions to prevent or manage nutrition-sensitive chronic diseases.[18,19]

To support efforts to improve food pantry clients' health, organizations addressing food insecurity must understand food pantry clients' needs and how they experience the food pantry system. Previous studies have explored

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food pantry directors' beliefs about their clients' needs and preferences.[20,21] Studies have also interviewed food pantry clients to understand: duration of use,[22] barriers to healthy eating,[8] preferences for specific categories of food,[21] non-food needs,[23] barriers to food access, and the strategies to conserve food.[24] Clients' needs, preferences, and recommendations are more commonly studied using surveys with categories and lists provided by researchers. For example, a survey study of 9,850 clients from over 200 Minnesota food pantries provided respondents with lists of food pantry characteristics and asked clients to indicate which were the most important to them.[25] The most frequently selected characteristics were the ability to choose one's food, being greeted and welcomed by staff, and experiencing an easy food selection process.

To develop effective health interventions with food pantry clients, researchers require nuanced understanding of clients' needs, preferences, and recommendations for food they receive from food pantries. Beyond comparisons and category rankings (e.g., proteins, vegetables, and fruits are more preferred than soda or candy),[21,25] previous literature has not provided food pantry clients from multiple pantries opportunities to describe their needs, preferences, and recommendations in their own words. To fill this gap in literature, the present study adopted a qualitative formative approach to exploring food pantry clients' needs, preferences, and recommendations regarding the food available in food pantries. Ensuring understanding of clients' needs, preferences, and recommendations is a key step in engaging clients' active participation in creating a client-centered food pantry system.

Methods

Study Participants, Recruitment, and Consent

Participants were recruited from six food pantries in Arkansas. Two of the pantries provided clients choice over food they received, and four of the pantries provided minimal choice (i.e., each client received a standardized food bag from which they could reject unwanted food but could not replace those foods with other options). The interview participants were recruited from a larger group of participants (n = 245) who completed a survey assessing sociodemographic characteristics, health status, frequency of food pantry use, and food insecurity status via the 2-item Hunger Vital Sign food security screener.[26,27] Results of the survey study are reported elsewhere.[28] Every third participant who completed the survey was asked to participate in the qualitative interviews following the completion of the survey. Fifty-four people were invited to participate in interviews, and 50 (93%) agreed. Recruiting for

the interviews stopped when the recruitment target of 50 total participants was reached. The four people who declined indicated a lack of time to complete the interview.

The study team consisted of the ten investigators who authored the study and four study staff. The informed consent process and the interviews were conducted by seven trained study team members (three study investigators and four study staff; three female and four male), two of whom were bilingual (English/Marshallese and English/Spanish). Recruitment, consent, and data collection were conducted in the three most common languages of food pantry clients in Northwest Arkansas: English, Spanish, and Marshallese. The study protocol was approved by the University of Arkansas for Medical Sciences Institutional Review Board (IRB #217560).

Data Collection

A semi-structured interview guide was utilized for consistency across all interviews. Interview topics and questions were selected based on the study investigators' previous work in food pantries in Arkansas,[16,17,29] Maryland,[30] and Minnesota,[25,31–33] as well as discussions with local food pantry staff. To create the interview guide, the study investigators selected an initial list of open-ended questions and then completed three rounds of refinement with the intent to select a small number of questions that would be relevant to participants' experiences across a broad range of food pantries. The final interview guide consisted of nine questions approved via study investigators' consensus. These questions explored participant households' needs and preferences for types of foods that they would like to receive in greater (or lesser) quantities and health concerns that may have influenced their preferences and recommendations related to food pantry foods. A representative question was, "You said you have gotten food from [INSERT NUMBER] pantry/pantries in the past 30 days. Thinking across all of those pantries, is there something that one or more of those pantries could improve to serve you and your household better?" Interviewers were trained to probe for detail following participants' initial responses and to be open to pursuing additional lines of inquiry relevant to study aims as they arose.

Qualitative interviews were completed in a quiet area apart from the main waiting area at each food pantry to maintain participant privacy. Interviews were audio recorded, transcribed verbatim, translated into English as needed, and checked for accuracy by a trained study staff member. Interviews were approximately 15 minutes in length. Participants received a $10 gift card for completing the interview. Data collection took place in July and August 2018.

Analytic Strategy

Data were analyzed using the constant comparative method with open coding methodology, as described by Strauss and Corbin (2015).[34] Five of the study investigators with expertise in qualitative research developed a preliminary codebook based upon a review of interview responses, and these study investigators met to discuss and define each of the themes. Two study investigators then independently coded the interviews with the refined codebook. A third study investigator reviewed coding to confirm coherence and accuracy of coding schema. Regular meetings were held to discuss additional emergent themes and revise theme definitions. The study investigators then critically reviewed the analysis, ensuring analytic rigor and reliability. Discrepancies in interpretation were discussed and resolved via consensus of the study investigators. To contextualize direct quotations presented in the Results, each participant is identified by a unique identification number and by whether they were recruited from a choice or minimal choice food pantry. Coders were not aware of individual participants' recruitment sites at the time of coding.

Results

Participant Characteristics

Of the 50 participants, 29 (58%) completed the interviews in English, 12 (24%) in Spanish, and nine (18%) in Marshallese. Half (n = 25) were recruited from choice pantries, and half were recruited from minimal choice pantries (n = 25). Participants' demographic characteristics are presented in Table 1. Approximately three-quarters (76%; n = 38) of participants were female. The median age of participants was 48.0 years, and 98% (n = 49) of participants screened as food insecure. More than half (60%; n = 30) of participants had been using food pantries for more than two years. Only 28% (n = 14) of participants were currently employed full-time or part-time. Only 30% (n = 15) of participants reported receiving Supplemental Nutrition Assistance Program (SNAP) benefits.

Emergent Themes

Three major themes emerged describing food pantry clients' needs, preferences, and recommendations regarding food they receive from food pantries: 1) clients need increased quantities of food items; 2) clients desire higher quality of food; and 3) clients desire foods relevant to their households. Table 2 presents an overview and brief descriptions of these themes.

Table 1. Describing food pantry users in Arkansas: sociodemographic characteristics, self-reported health status, food pantry use, and financial trade-offs (n = 50).

Participant Characteristics	n (%)
SOCIO-DEMOGRAPHICS	
Age (Median, IQR)	48.0 (39.0–57.0)
Race/Ethnicity	
Non-Hispanic White	21 (42%)
Hispanic	14 (28%)
African American	2 (4%)
American Indian/Alaskan Native	4 (8%)
Pacific Islander	8 (16%)
Multi-Race	1 (2%)
Sex	
Male	12 (24%)
Female	38 (76%)
Insurance coverage	
No	20 (40%)
Yes	30 (60%)
Education level	
Less than HS	19 (38%)
HS diploma/GED	19 (38%)
Some college/College grad	12 (24%)
Employment status	
Employed	14 (28%)
Not employed	22 (44%)
Retired	3 (6%)
Unable to work	11 (22%)
Food insecure as measured by screener	
No	1 (2%)
Yes	49 (98%)
Homeless or living in temporary housing	
No	47 (94%)
Yes	3 (6%)
Currently receiving SNAP benefits	
No	35 (70%)
Yes	15 (30%)
FOOD PANTRY USE	
How many times in the past 30 days did you obtain food from food pantries? (Median, IQR)	2.0 (1.0–2.5)
For how long have you obtained food from food pantries?	
More than 5 years	12 (24%)
Between 2–5 years	18 (36%)
Between 1–2 years	7 (14%)
Between 6 months and 1 year	5 (10%)
Less than 6 months	8 (16%)

Note. IQR = interquartile range; HS = high school; GED = general equivalency diploma; SNAP = Supplemental Nutrition Assistance Program. Food insecurity was assessed using the two-item Hunger Vital Sign food security screener.[31,32]

Clients Need Increased Quantities of Food Items

Participants identified the amount of food they received from food pantries as an area for improvement. Two subthemes emerged from participants' discussion of the quantities of food received from food pantries: 1) *need for larger quantities of food* and 2) *increased distribution of protein: meat and dairy products*.

Table 2. Themes relating to food pantry clients' needs, preferences, and recommendations regarding food received from food pantries.

Theme	Brief description
Clients need increased quantities of food items.	• Clients described relying on food pantries and expressed a need for larger quantities of food. • Clients requested that pantries provide more meat and dairy products, which are unaffordable for many clients.
Clients desire higher quality of food.	• Clients expressed desire to receive healthy food, including fewer snacks high in sugar and more fresh produce. • Clients reported concern that they received food in poor condition that they could not use, including items near expiration, spoiled items, and produce in poor condition.
Clients desire foods relevant to their households.	• Clients indicated difficulties in eating and preparing unfamiliar food items they received from pantries. • Client described dietary needs influenced by chronic diseases and challenges meeting these needs with the foods they received from pantries.

Need for Larger Quantities of Food. Participants consistently reported they did not receive enough food to meet their needs. Participants stated that the food they received only lasted a few days, and many relied on the food pantries for a significant proportion of their monthly household food needs. Participants explained that they needed "more amounts of food, because it only lasts for a day or two." (ID14; minimal choice). Participants said food pantries could better meet their needs if "they give me more food" (ID8; minimal choice). Another participant expressed multiple times that even though they were satisfied with food pantry services, they did not receive sufficient amounts of food: "Give more [food]; increase the amount they give us ... still seems like it's not enough" (ID31; choice). Other participants stated that they believed they were receiving less food than they had previously: "You don't get quite as much now as you did ... sometimes you run out" (ID27; choice).

Increased Distribution of Protein: Meat and Dairy Products. Participants explained they were not able to buy certain high protein foods at the grocery store because of the higher costs associated with those items and instead relied on food pantries to provide foods such as meat and dairy. However, participants reported that quantities of protein were often limited and did not meet their needs. For example, participants expressed, "They don't give out very much meat. It's difficult to get elsewhere because it's expensive" (ID44; choice). Other participants had similar comments: "They don't give a lot of meat out," (ID27; choice) and "I think food pantries could give more chicken. With chicken you can make more meals." (ID35; minimal choice). When food pantries did have meat to offer clients, often only small portions were available, and one participant reported that it was not enough to feed their household: "It would help if there was more meat. Usually, they give you meat for one meal. You have to have your basic [food] groups every single night. With one thing of meat, you have [one] meal, so unless it is a large amount of it, you are only getting one meal out of it" (ID45; choice). Similar to the desire for more meat, participants stated that dairy

products were difficult to purchase due to household budgetary constraints, and they desired more be distributed through the food pantry. Participants requested more "eggs and probably cheese and milk. They're expensive inside the store" (ID24; choice). When discussing their desire for dairy, another participant remarked on the costs of milk compared to gasoline, saying, "It's cheaper to buy a gallon of gas than it is to go get a gallon of milk" (ID4; minimal choice).

Clients Desire Higher Quality of Food

Participants identified the quality of food offered by food pantries as an area for improvement. Two subthemes emerged from discussions of the quality of food: *1) healthier food options* and *2) condition of the food*.

Healthier Food Options. Participants stated that the snacks they received were typically unhealthy and high in sugar. Participants suggested that food pantries provide "Just less sugary snacks. I mean snacks are great. Just not the sugary snacks. It's not healthy" (ID1; choice), and "less junk food; that would be more ideal. Less cakes and cookies" (ID45; choice). Participants also reported they wanted more unprocessed and natural foods, "like fruit or vegetables and rice because they are fresher, and they are more natural," (ID21; choice) and "fresh fruits anyways would be better than a lot of the chips, candy, and cookies that they give out. It makes a difference when a kid sees a banana and gets more excited than a bag of chips. You know that they're going to get better nutrition out of the banana than the chips" (ID45; choice).

Participants reported receiving ample amounts of canned goods but expressed their desire for more fresh produce because they recognized that these items are healthier and wanted to incorporate more of them into their diet. One participant stated they wanted more "fruit or fresh vegetables . . . for me it's better than canned food" (ID5; minimal choice). Participants stated that they want "vegetables and fruits because it makes us healthy," (ID13; choice), and "I love broccoli, but they don't give a lot of that out. I'd rather have that than I would anything else" (ID27; choice). Another participant, when asked what food pantries could do better, stated "just [more] fresh fruits and vegetables" (ID40; minimal choice).

Condition of the Food. Participants reported receiving what they perceived as poor quality food, much of which had expired or was soon to expire. Participants stated that they wanted food pantries "to check the expiration date because they have given me food that is spoiled," (ID18; minimal choice), and to "look for things that are about to expire or at least the ones that have already expired. One has to throw food away because it is already expired" (ID21; choice).

The quality of fresh produce was also discussed. Participants reported that much of their produce was in poor condition, and they had to use fresh food quickly before it spoiled: "I like the fresh vegetables, though I guess that

sometimes they're not very good, and you have to use them that day or they're gone" (ID37; choice). One participant mentioned not being able to use all the produce they received because it spoiled by the time they got home. When talking specifically about fresh vegetables, participants said, "The reason they were donated to the pantry was because they were starting to go bad and by the time you get it home, it usually is bad. You have to be real picky with what you are actually keeping, because a lot goes bad too quick" (ID45; choice).

Clients Desire Foods Relevant to Their Households

Participants reported that sometimes they did not eat the food they received because they were unfamiliar with certain items or because of health concerns (e.g., diabetes). Two subthemes emerged regarding the type of foods they received from food pantries: 1*) familiarity with foods* and 2) *client health status.*

Familiarity with Foods. When participants did not have the opportunity to choose the foods they preferred from pantries, they relayed that they were provided with foods they were unfamiliar with and unable to prepare. One participant said, "If they can only give us more of what we can eat and not so much of the ones we're not familiar with." (ID49; choice). Some participants were not used to foods like whole grain pasta and said it had a "different texture" and that their family was "just not used to it" (ID8; minimal choice). Participants reported that they did not want certain items because they did not know how to cook them: "I have not prepared [brown rice], I never have done it" (ID39; minimal choice). Participants reported challenges with making meals from foods with which they were unaccustomed: "I didn't really know what to make from what I'm given or like my family doesn't really use that so it doesn't really do a whole lot." That participant went on to state they wanted "something you can make a meal out of versus here and there kind of stuff" that they did not know how to cook (ID40; minimal choice) .

Client Health Status. Participants reported chronic diseases influenced their food needs. One participant said, "I cannot eat all kinds of food because I'm real diabetic, and I cannot eat a lot of stuff" (ID2; minimal choice). When asked about how their health affected the foods they needed from the food pantries, one participant said that his "heart issues influence food choices" (ID3; choice), which led him to pick foods low in sodium, and another said they eliminated salty snacks because, "it makes my heart race" (ID1; choice). At times, participants shared that they attempted to eat healthy but that their diet was influenced by what food pantries offered, even if they understood that it was not the best option for their health. One participant who had diabetes said, "Things that are breaded and fried have a lot of oil and a lot of flour, but

sometimes we don't have another choice but to use them. I try to remove the breading from on top of it and we try to eat it that way" (ID9; choice). Another participant discussed having to turn down some foods or give them away to friends or neighbors, due to watching their weight: "with the weight loss that I have, I have to be careful with the foods that I do eat. That makes me more conscious of what I do get at the pantries and what I can't use I either decline or I give it to a neighbor" (ID1; choice). Another participant stated, "even with my health, I eat basically anything . . . being diabetic and [having] high blood pressure you are only supposed to eat certain things . . . there are things that you don't get [at the food pantry], you know, so you have to basically eat what you get" (ID33; minimal choice).

Discussion

This study documents food pantry clients' needs, preferences, and recommendations: food pantry clients need food pantries to provide greater quantities of food per visit, would like higher quality food, and want to receive foods that are familiar to them and relevant for them and their households. Each finding was shared by participants from choice and minimal choice pantries alike, emphasizing that these needs, preferences, and recommendations are relevant to a broad set of food pantries, rather than only those with a specific distribution model. Moreover, these findings echo recurring themes from previous survey and interview studies in other locations.

Food pantry clients expressed concerns that they did not receive sufficient quantities of food to feed their households, and they did not receive adequate amounts of protein. The findings are consistent with previous quantitative research indicating many food pantries do not distribute enough food to fully meet clients' food needs.[15–17,21] Findings highlighting clients' concerns about the amount of protein distributed by pantries are consistent with findings from other qualitative and quantitative studies.[15,21,35] Healthy meats, dairy, and plant-based protein foods are often expensive. Most food pantries have minimal funds to procure food, and much of the food distributed by the charitable food system in the US depends upon donations from retailers, distributors, manufacturers, and growers. Food pantries' limited economic resources and food pantry clients' need for greater quantities of a wider range of food underscore the need for system-wide solutions. Policymakers, food industry leaders, and the charitable food system need to develop strategies informed by nutrition science to incentivize donation or subsidies of greater quantities of healthier foods – including lean proteins – to the charitable food system.[36] In the meantime, food pantries can consider providing bundles of foods to be prepared together either to utilize meatless protein sources or to help clients stretch the smaller animal-based protein quantities food pantries are able to offer.

Food pantry clients shared concerns about the quality of food, including limited healthy food options and poor condition of the food they received. This finding is consistent with prior quantitative research that indicated a significant gap between clients' needs and availability of healthy food options.[15–17] Retailers' donations account for a significant proportion of fruits and vegetables and bakery items distributed from food pantries. However, retailer-donated items are often near their expiration date[37,38] and include a significant proportion of highly processed bakery items. Prior research has shown food pantry staff often rely upon food donated from retailers and are therefore reluctant to reject donations, regardless of the nutritional value of the food.[29] Retailers are incentivized to donate food to the charitable food system, but US federal food policy does not specifically address the nutritional quality of food donations.[39] This provides an opportunity to revise policy incentives in order to improve access to high quality healthy food in the charitable food system. In the meantime, food pantries and food banks can seek grant funding targeted at procurement of healthier foods and provide client education related to understanding which foods beyond their expiration dates remain safe to eat.

Consistent with previous survey findings,[21] participants emphasized the importance of both the taste and the nutrition of foods received from food pantries. To encourage clients to prepare and try new foods, some food pantries have found success in implementing low-cost educational resources by offering recipes that include familiar and unfamiliar ingredients (e.g., whole grain pasta or brown rice), bundles of foods that can be prepared together to create a complete meal that is appealing to their clients, and cooking demonstrations and samples of dishes that include unfamiliar ingredients.[29,40,41]

Food pantries are likely to improve clients' access to familiar food and minimize food waste by integrating clients' preferences into the operations of the pantry, including by instituting client advisory boards or other methods of regularly eliciting and acting on client feedback. Both interview and survey studies have shown support for increasing the level of choice in food pantries.[17,20,25,42,43] However, findings from the present study indicate that increasing client choice is not a sufficient solution on its own.

Clients in the present study who have histories of chronic diseases described their struggles to access food items appropriate for managing their chronic condition, sharing coping strategies that add specificity to related broad findings about chronic disease from closed-ended survey studies of client preferences.[42,44] The present study provides detail regarding participants' frustrations and coping strategies (e.g., removing breading from meats) about receiving food that is not appropriate due to health concerns. To address clients' difficulties, food pantries can consider

engaging clients they serve in order to prioritize procurement of foods that are familiar to their clients and meet the nutritional needs of their clients. Food pantries can also implement educational materials such as signage and behavioral economic nudges[33] to ensure clients are aware of appropriate foods available for household members with diet-sensitive chronic diseases like type 2 diabetes or hypertension or with food allergies. Food pantries may also prepare tailored food boxes for clients with specific health and dietary needs.[45,46]

Strengths and Limitations

The present study's limitations include its reliance on a sample of interviewees from food pantries in Arkansas. Despite a recruitment rate of 93% and participants being systematically randomly sampled at the food pantries, participants may not be representative of the general population of Arkansas food pantry clients. In addition, Arkansas food pantry clients may differ from clients in other regions. For example, only 30% of participants received SNAP benefits, which is lower than in other regions.[25] However, Arkansas is one of a relatively small number of states using the strictest allowable asset limits for SNAP eligibility, disallowed use of Broad-Based Categorical Eligibility flexibilities, and enforced strict time-limit and work requirements for adults.[47] Increasing food insecure Arkansans' access to SNAP benefits and increasing monthly SNAP allotments is likely to improve access to increased quantities of the high quality, familiar foods requested by many participants.

Saturation was reached within the sample size; however, more interviews could have potentially revealed additional themes. For example, although analyses did not identify differences based on race/ethnicity, culture, or sex in needs, preferences, and recommendations related to food pantries, differences may have emerged with more extensive interviews. It is also possible that engaging food pantry clients into the analytic process (e.g., through respondent validation or member checking) would have surfaced somewhat different results. The study investigators and staff have different backgrounds and experiences compared to the study participants, which can serve as both a strength and a limitation. Regular study investigator discussions and multiple coders were used to consider effects of these differing perspectives. Limitations were also addressed in part by collecting data in three languages, recruiting participants from each site on multiple visits, using separate data collectors and data coders, and developing the study with a group of experienced researchers from across the US.

Conclusions

The study addresses a gap in knowledge by asking food pantry clients to identify their needs, preferences, and recommendations for improving the food available in food pantries in their own words. Participants described the need to improve the quantity, quality, and type of foods available in food pantries. Clients prioritized recommendations for more food, high quality food that is healthy and does not spoil quickly, and food that is familiar. These recommendations were shared by clients from choice and minimal choice pantries and clients from a range of linguistic and demographic backgrounds. These recommendations are consistent with findings from many past studies. Addressing clients' health needs requires understanding – and acting on – clients' recommendations. Clients' recommendations have not been central to current research, in part because food pantries face many challenges and competing demands such as limited budgets and reliance on food donations.[41,48,49] Long-term solutions require policy change across the charitable food system and beyond.[39] By identifying clients' desires for improvements in the quantity, quality, and type of food received at food pantries, the present study provides researchers, government policymakers, food donors, and the charitable food system opportunities to consider targeted changes in policies and practices to meet clients' needs within the food pantry system.

Disclosure Statement

No potential conflict of interest was reported by the author(s).

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Data Availability Statement

The deidentified data underlying the results presented in this study may be made available upon reasonable request from the corresponding author, Christopher R. Long, at crlong2@uams.edu. The data are not publicly available in accordance with funding requirements and participant privacy.

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