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Qualitative study of influences on food store choice

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Abstract

Previous research indicates food store choice influences dietary intake and may contribute to health disparities. However, there is limited knowledge about the reasons which prompt the choice of a primary food store, particularly among populations vulnerable to obesity and chronic diseases (e.g., individuals living in rural locations and African-Americans). Purposive sampling was used to select rural and urban communities (3 African-American and 2 Caucasian focus groups; n=48) in Arkansas from June to November 2010, allowing examination of potential racial or rurality differences. Primary household food shoppers (n=48) (96% female, 63% African-American, mean age=48.1±13.9 years old, mean BMI=30.5±7.8) discussed reasons for choosing their primary store. Qualitative analysis techniques—content analysis and constant comparison—were used to identify themes. Four themes emerged: proximity to home or work, financial considerations and strategies, availability/quality of fruits, vegetables, and meat, and store characteristics (e.g., safety, cleanliness/smell, customer service, nonfood merchandise availability, and brand availability). While there were persistent rurality differences, the relevant factors were similar between African-American and Caucasian participants. These findings have important implications for future policies and programs promoting environmental changes related to dietary intake and obesity, particularly in rural areas that appear to have significant challenges in food store choice.

Keywords

Rural communities; race; food store; diet; health disparities

Environmental aspects of dietary intake (e.g., food stores, restaurants) have emerged as a key consideration in risk for chronic diseases, as these environments may broadly impact health (Popkin, Duffey, & Gordon-Larsen, 2005). Research has illuminated significant disparities in access to nutritious dietary options, particularly among racial minority and rural populations. In the United States, nutritious foods (e.g., fruit, low-fat milk) tend to be less available in areas with a higher proportion of African-Americans (Baker, Schootman, Barnidge, & Kelly, 2006; Hosler, Varadarajulu, Ronsani, Fredrick, & Fischer, 2006) and in rural communities (Dean & Sharkey, 2011; Sharkey, Horel, & Dean, 2010), and nutritious

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food availability is associated with dietary intake (Cheadle et al., 1991, 1993; Fisher & Strogatz, 1999). A significant determinant in nutritious food availability is the accessibility of supermarkets (Block & Kouba, 2006; Chung & Myers, 1999; Connell et al., 2007; Jetter & Cassady, 2006; Liese, Weis, Pluto, Smith, & Lawson, 2007; Sallis, Nader, Rupp, Atkins, & Wilson, 1986); yet, supermarkets are less frequently located in communities with a high proportion of African-American residents (Baker, et al., 2006; Liese, et al., 2007; Moore & Diez Roux, 2006; Morland, Wing, Diez Roux, & Poole, 2002; Powell, Slater, Mirtcheva, & Chaloupka, 2007) and in rural areas (Connell, et al., 2007; Powell, et al., 2007). Therefore, racial minority and rural populations that are at greater risk for obesity (Flegal, Carroll, Ogden, & Curtin, 2010; Y. Wang & Beydoun, 2007), and diet-related chronic diseases (Banks, Marmot, Oldfield, & Smith, 2006) may find availability of nutritious foods is a major obstacle to consuming a health-promoting diet.

Although the availability of nutritious foods is plainly a significant influence on dietary intake, the accessibility of nutritious foods is likely driven by other factors, including price and quality (i.e., freshness). Specifically, many nutritious foods are more expensive than less nutritious items (Jetter & Cassady, 2006; Liese, et al., 2007). In addition, supermarkets (which are not as frequently located in locations with a high proportion of racial/ethnic minority residents, with a lower average socioeconomic status, or in rural areas) have been shown to have lower overall prices than grocery or convenience stores (Chung & Myers, 1999; Liese, et al., 2007). Finally, research has demonstrated that store size is also associated with food quality (Connell, et al., 2007).

Thus, emerging research supports the importance of availability, pricing, and quality of foods and store type/size in relation to the consumption of these foods; however, previous research has largely not examined the reasons for food store choice. The few studies that have reported on reasons for food store choice have focused on low-income residents (D'Angelo, 2011; Wiig, 2009; M. C. Wang et al., 2008) and Latinas (Ayala, Mueller, Lopez-Madurga, Campbell, & Elder, 2005); however, reasons for food store choice in a broader sample of individuals have not yet been examined. In addition, the questionnaires used in these studies were limited in scope and the degree to which they were developed based on community input is unclear, so it is uncertain as to whether they accurately represent the diversity of community perceptions.

Qualitative methods, including focus groups, are considered an important approach to gain an in-depth understanding of community perceptions (Speziale & Carpenter, 2007) and for informing quantitative assessments of relationships between complex conditions and subjective responses (Hsieh & Shannon, 2005). The purpose of this study, which used focus group methodology, was to gain an in-depth understanding of the reasons for choosing their primary food store and examine potential racial or rurality differences in these reasons.

Methods

Setting

The site for this study was purposively selected because of the mix of urban and rural areas and the proportion of African Americans in Arkansas (16% African American (United States Census Bureau, 2010)). The majority of the population lives in a rural area, with 55 of 75 counties classified as nonmetropolitan (Rural Policy Research Institute, 2006), based on the definition that all counties not part of a metropolitan area are considered rural (Office of Rural Health Policy, 2009). The study included 5 focus groups conducted with individuals who resided in 4 Arkansas communities (2 focus groups were conducted in one community), that represented diverse perspectives.

The five focus group can be described as:

- *Rural African American focus group*: This rural town has approximately 1200 people, who predominately identify as African American (63% African American, 37% Caucasian) (United States Census Bureau, 2010)
- *Rural Caucasian focus group*: This rural town has approximately 600 people, who predominately identify as Caucasian (70% Caucasian, 30% African American).
- *Urban African American & Urban Caucasian focus groups (two separate groups)*: This metropolitan area is the largest city in the state, with approximately 193,000 people and with substantial populations of both African American and Caucasians (43% African American and 50% Caucasian).
- *Small City African American focus group*: This small city has approximately 49,000 people, who predominately identify as African American (76% African American, 23% Caucasian).

Participant Recruitment

Participants were recruited through established networks of community organizations across the state, facilitated by the inclusion of a community liaison in every stage of this research. We employed a multi-component recruitment approach, including: 1) direct, community-based efforts using small media (e.g., posters in local businesses, notices in churches or newsletters); and 2) targeted invitations to known community gatekeepers likely to know potentially eligible participants. Interested individuals were invited to call the research team to learn more about the focus groups and to complete a phone screener to determine eligibility. To be eligible to participate, an individual had to be: a) at least 18 years old, b) the primary food shopper for a household with a minimum of two individuals, and c) not following a particular diet requiring shopping at a particular store (e.g., gluten intolerance). Only one member of a household could participate. Consistent with recommendations for the planning of focus groups {Morgan, 1997}, participants were recruited into focus groups that were homogeneous for race (i.e., each focus group was designated as recruiting African Americans or Caucasians) and rurality (i.e., each focus group was designated as being located in a specific community).

Data Collection

After informed consent was reviewed orally (with opportunity for questions) and obtained in writing, the focus group was conducted and sociodemographic data were collected through questionnaires. Measured body weight and self-reported height were collected on all focus group participants, and body mass index (BMI; weight [kg] / height [m]²) was calculated. The focus group guide was developed by the first author; it was reviewed by the other members of the research team and revised. Following the focus group guide, participants were asked a series of semistructured, open-ended questions such as “How do you go about choosing where you typically buy your food?”. Probe questions were used to expand discussion. Focus groups took place in community locations convenient for participants (i.e., churches and community centers). All focus groups were scheduled in the evening hours, for the convenience of the participants. The focus groups ranged in length from 61 minutes to 96 minutes, and all study participants received a \$20 gift card for participation.

All focus groups were conducted by an experienced African American or Caucasian facilitator, depending upon who was the race-concordant individual. The investigator who was not facilitating the focus group assisted by observing and taking notes during the focus

group. All focus groups were digitally recorded and the study was approved by the institutional review board at the University of Arkansas for Medical Sciences.

Data Analysis

Digitally recorded sessions were transcribed verbatim, by an experienced transcriber; transcripts were then reviewed with the digital recording to ensure accuracy. Five coders who were members of the research team (one of whom was also a focus group facilitator) read the initial focus group transcript to develop codes based on repeated themes. The final codebook included 10 themes and operational definitions. The second focus group transcript was then read and coded independently by the same 5 coders, who then met to discuss discrepancies in coding and reach consensus on coding decisions. The remaining three focus group transcripts were then coded by the first author, based on the codebook.

The investigators employed the qualitative techniques of content analysis and constant comparison (Hsieh & Shannon, 2005; Speziale & Carpenter, 2007). Once code words were assigned to pertinent sections of data according to line number (content analysis), these were entered into Ethnograph v6 qualitative data management software (Qualis Research, Denver, CO), which allows data to be segregated according to code words to assist with analysis. Findings were compared across interviews to determine differences and similarities in the data (constant comparison). Similar coded segments were aggregated into larger blocks of data and then into themes reflecting data reported by participants (overall, by race, by rurality). All quantitative analyses of sociodemographic factors were conducted using SPSS, version 18.

Results

Sample

Seventy-two individuals indicated their interest in the study by completing a phone screener. Of those, 57 were eligible and available, 4 were eligible but had a conflict with the chosen focus group date/time, and 11 participants were ineligible (all did not shop for a household of two individuals or more). Of the 57 eligible and available participants, 9 were scheduled but did not attend the focus group session.

Five focus groups were held, each with 9 to 11 participants. The 48 focus group participants had a mean age of 48.1 ± 13.9 years (range: 22–73 years) and were predominately female (96%). They had a mean BMI of 30.5 ± 7.8 , with 23% in the normal weight range, 31% overweight, and 46% obese (National Institutes of Health, 1998). Sixty-three percent of the sample was African American and 37% of the sample was Caucasian. None of the participants identified as Hispanic. Most (54%) were currently married, with 23% divorced or separated, 15% never married, 4% widowed, and 4% a member of an unmarried couple. The participants represented a broad range of educational backgrounds: 4% had less than a high school degree, 31% completed high school, 29% completed some college, and 36% had a college degree or greater. Most of the participants were employed full time (55%); 15% were employed part-time, 15% were retired, 11% were full-time homemakers, and 4% were students.

Four main themes (Table 1) associated with food store choice emerged from the focus groups. The themes were: 1) proximity to home or work; 2) financial considerations and strategies; 3) availability/quality of fruits, vegetables and meat; and 4) store characteristics. Each theme is detailed separately in the following sections and supported by quotations from focus group participants.

Proximity to Home or Work

Participants in the urban focus groups, regardless of race, talked about having a choice in where they shopped, and therefore, often choosing a store that was “convenient” (mostly to their home, but sometimes to their workplace). One participant (Urban African American focus group) reported proximity was clearly important to her as “when [she] moved [she] changed where [she] went shopping.” In contrast, while participants in the rural focus groups described having a choice in where they shopped, all of the food store choices involved traveling quite a distance (approximately 30–35 minutes). Participants in the rural focus groups spoke of occasionally driving an hour to two hours to reach a large city to buy bulk foods at a warehouse store or a large chain supermarket because they are “cleaner and everything; they have more varieties of stuff, and they have a lot of different sales going on.” These trips were often coupled with trips for doctor’s appointments or visits with family members. While proximity or “convenience” was perceived as important, participants in all of the focus groups stated the availability/quality of foods in the store was also a primary concern, such that they may not go to the absolute closest store, but instead go to a store that was “close enough” and was perceived having good availability and quality foods.

Participants in both of the rural focus groups mentioned wishing their own community had a store with broad availability of food options, high quality fresh items, and reasonable prices. Participants in the Rural Caucasian focus group described the limited availability of foods in the most proximal store:

Participant 1: “[It’s not like you say], “we’re going to have this for supper—let’s go pick it up. It’s more like, ‘let’s go see what they’ve got available that we can cook for supper.”

Participant 2: “Yeah, you have to be flexible.”

Participant 3: “Right, there’s no fresh fruits or vegetables or anything like that.”

Participants in the Rural Caucasian focus group also mentioned that the most proximal stores had low quality food items:

Participant 1: “It’s hard for me to get to the bigger places and get fruit, but going to the local stores, they might have one little bin of apples or a couple of oranges that look like they ought to be in the trash.”

Participant 2: “That are \$0.98 a piece.”

Participant 1: Right, but I mean that’s what we’re limited to, a lot of canned fruit. You know, there’s some frozen, but it’s already thawed and refrozen and freezer-burned in some places.”

Participants in the Rural Caucasian focus group remarked upon the impact of shopping in other towns on their local infrastructure:

Participant 1: “When we have to go to other towns to do our shopping is that benefitting that town? Yes.”

Participant 2: “And paying the taxes there, and benefitting their community.”

Participant 3: “Yeah, their community, it’s taking away from us. I mean, we’ve lost our school, our medical clinic, our grocery stores.”

Clearly, rural participants, regardless of race, perceived the need to support their community, but largely did not feel they could purchase the food they desired in their community.

In sum, proximity was a key factor in choosing a food store for all participants, although both urban and rural participants appeared to go through a process of considering and sometimes “testing” various stores to make their decision in conjunction with other factors such as price and food availability/quality. We did not observe differences between Caucasian and African American participants in access or proximity to preferred food stores. The differences we observed related to proximity were based on rurality, with rural participants reporting much longer distances traveled to do food shopping.

Financial Considerations and Strategies

The perceived costs of shopping in one store over another was a common consideration by participants in all focus groups. The participants reported several strategies for managing food costs, including shopping at several stores, shopping at only one store to save fuel, shopping in particular stores with better prices or lower local tax rate, or choosing particular types of food (i.e., foods to improve/maintain health and reduce lifetime health care costs, avoiding costly fruits and vegetables, or choosing food items primarily based on cost regardless of other considerations like health).

There were divergent views in all of the focus groups (with no race or rurality differences) on whether it was preferable to shop at multiple stores to get the best deals or to shop at one store to limit the fuel expense. One participant in the Urban African American focus group stated, “I shop around. I waste gas,” while another participant in this focus group reported, “I shop where I shop, and that’s it....because I’d rather save my gas.” Other participants in all focus groups reported they shopped at several stores based on the deals they found in the “sales papers” (the weekly store circular), although others reported they went to a store that did “price matching” so they only went to one store but that store matched the prices advertised by others.

In addition, as previously mentioned, the participants in the rural focus groups regardless of race consistently reported the food prices in their local, most proximal store were significantly higher than the prices in the supermarkets in other communities. Another financial consideration mentioned in two of the focus groups (Urban African American, Rural Caucasian) was the differing tax rates for grocery food items in different locations and their efforts to avoid shopping in stores located in communities with a higher municipal and/or county tax rate on grocery store food items. One participant (Urban African American focus group) reported, “I will drive different places [to get a good deal], but I probably would not go [shopping] over the river, because I know the taxes are high [there].” Thus, financial factors related to both store/community size and local taxation rates on grocery foods were considerations in choosing a food store.

Finally, participants in all of the focus groups reported prioritizing more costly, but more nutritious foods over less nutritious and less expensive foods and choosing stores where they were able to purchase these nutritious foods. The participants explained their reasoning as “Which one would you rather buy now? Would you rather pay for the healthy foods now, or pay the doctor bills later?” (Urban African American focus group). Nonetheless, participants also reported the cost of nutritious foods was a key barrier to purchasing them more often. The perceived high cost of fruits and vegetables was the most common point of discussion among all of the focus groups (regardless of race or rurality) related to cost as a barrier to purchasing nutritious foods. While meat was the second most commonly discussed food

group that influenced store choice, the price of meat or the price of leaner cuts of meat was rarely discussed, instead the quality of the meat was the area of focus.

Nonetheless, in two of the three of the African American focus groups (Urban and Rural), having enough food was mentioned as a concern and a potential reason why one might not buy nutritious foods. One participant (Rural African American focus group) indicated:

“I might want to be healthy, but I can’t buy all that high healthy food. I’m just being honest. The healthy food is expensive. I don’t care what y’all say, it’s expensive, and when I’ve got to feed all my children, they can’t get all that good healthy food all the time.”

Another participant (Urban African American focus group) stated she chose a store where she could shop in bulk to avoid worry about having enough food for herself and for her family:

“I remember coming up, we didn’t have enough food, and so I said when I get old enough, we’re always going to have food, so if anybody needs something, they know where to come, because that deep freeze is going to be packed with something to eat.”

In sum, although most participants reported prioritizing nutritious foods and choosing stores that had these nutritious foods available, cost was identified as a barrier to the purchase of nutritious foods, particularly fruits and vegetables and particularly among some African American participants who reported concerns about having adequate food. The higher cost of foods in small stores in rural communities was the sole urban/rural difference in financial considerations about food store choice. The only potential race-based difference was that two of the three African American focus groups (Urban and Rural, not Small City) mentioned a concern about having sufficient food that influenced their food shopping, and this was not a concern mentioned by other focus groups.

Availability/Quality of Fruits, Vegetables, and Meat

The availability/quality of fruits and vegetables and fresh meat were the food items that drove participants’ store choice. Other food items (e.g., breads, packaged or prepared foods) were rarely mentioned as important in store choice. There were a few exceptions to this focus on fruits, vegetables, and meat guiding store choice among the urban focus groups. Specifically, several participants reported that the presence of organic foods (in both the African American and Caucasian Urban focus groups) and the presence of vegetarian foods and foods that had been grown/produced locally (in the Urban Caucasian focus group) guided their food store choice.

Perhaps because fruits and vegetables were seen as a priority, participants in all of the focus groups mentioned utilizing venues for fruits and vegetables other than traditional grocery stores or supermarkets. A few participants in each of the urban focus groups reported growing gardens which provided fruits and vegetables or raising animals on which they relied for much of the year. The focus on home-grown fruits and vegetables was more prevalent in Rural African American group, as they reported these were a key source of produce for many individuals in their community. This group also reported that there were community members who intentionally grew more fruits and vegetables than they needed, so that they could give some away. They reported, “It’s a neighborly thing. They do enough for the whole county.” The Rural Caucasian group indicated home-grown fruits and vegetables were historically an important source of produce; however, in recent years, the community members have not grown successful gardens, which they attributed to the chemicals used in the process of growing rice in the area.

Participants in both of the urban focus groups reported utilizing and enjoying purchasing their fruits and vegetables at the farmer's market; in contrast, participants in the Rural African American focus group reported the items at the nearby farmer's market were too expensive. Participants in the Small City African American focus group reported the local seed store stocked fresh fruits and vegetables and was thus an important venue for them in purchasing these items. Participants in the Rural Caucasian group reported enjoying farmer's markets when they visited larger communities with farmer's markets, but a participant stated, "the best way to buy vegetables and stuff is off the side of the road" in fruit and vegetable stands. Thus, although not all focus groups explicitly mentioned that locally grown food was important to them as did the Urban Caucasian focus group, all of the focus groups were clearly valuing these local products.

It is unmistakable that the availability and quality of fruits, vegetables, and meat at food stores are crucial factors in decision making when selecting one's primary food store, regardless of race or rurality. Furthermore, it is clear these food items and the quality thereof is so important that participants across the board were highly motivated to seek out what they believe to be the best source for these items, whether it was at the supermarket, farmer's market or seed store, or in one's own yard (or the yard of a neighbor).

Store Characteristics

There were 5 key categories related to store characteristics that participants reported were important in their choice of a food store—safety, cleanliness/smell, customer service, nonfood merchandise availability, and brand availability. First, participants in both the urban and rural focus groups reported being concerned about safety in the parking lot of the grocery store, with some choosing a store perceived as safer and others reporting they carry a gun to feel safer. Although none of the participants reported experiencing violence in a store parking lot personally, they reported they had heard others had been mugged, abducted, attacked or shot in the parking lot of stores which they thus preferred to avoid. Safety did not emerge as an urban/rural difference in food store choice considerations because the participants in the rural communities largely drove to more urban areas to do their grocery shopping.

Cleanliness and the smell (or specifically no unpleasant smell) of a store, as well as customer service, were also cited as important factors in determining store choice in all of the focus groups, without apparent racial or rurality differences. Related to customer service, participants were particularly concerned with being greeted by store employees as well as the helpfulness of store employees if they needed assistance in finding an item.

The participants in several of the focus groups expressed mixed views on whether it is good to have merchandise other than groceries. One participant (Urban Caucasian focus group) noted, "I will go out of my way to go to [a large chain store] and do my shopping there, because I need a shower curtain rod or something, instead of making two separate trips." Some participants preferred stores with only food for reasons of less walking or fewer distractions.

Participant 1 (Small City African American focus group): "I can't do a lot of walking, so I just [shop at stores which are smaller and have] only food."

Participant 2: "Only food, because the other stuff becomes a distraction."

Participants in several of the focus group also expressed mixed views on whether they shop at stores because of the availability of a particular brand of food. One participant (Rural African American focus group) stated: "It [the food at the small, rural store] is back-dated,

and it's not a name brand food at all. It's, you know, when I say that, I mean it's just a second choice of food." In contrast, another participant in the same focus group indicated, "I go to [the small chain grocery store] because they have [store brand] green beans in a can. They taste better and look better than [name brand] beans."

These same 5 store characteristics--safety, cleanliness/smell, customer service, nonfood merchandise availability, and brand availability--were mentioned consistently and repeatedly in focus groups, regardless of the racial identification of the participants or rurality. While there were mixed views on the availability of other non-food-related merchandise and the availability of either store brand or name brand food items, the characteristics of "availability of other merchandise" and the "availability of certain brands" were commonly discussed factors important in food store choice.

Discussion

These results shed light on the most prominent factors in food store choice among urban and rural residents in Arkansas from diverse racial backgrounds. Principle factors influencing selection of primary grocery store were: proximity to home and work, financial considerations and strategies, food availability and quality of fruits, vegetables, and meat, and store characteristics. While there were persistent urban/rural differences, the factors relevant to food store choice were consistent between African American and Caucasian participants for the most part. The urban/rural differences were largely driven by the lack of supermarkets in the rural areas sampled; rural residents reported this resulted in spending more money in their small local store to obtain items perceived as inferior, or driving long distances to go to a supermarket in another community. These findings are consistent with previous research indicating there are fewer supermarkets in rural areas compared to more urban areas (Liese, et al., 2007).

Results from this sample have some key similarities, as well as some differences, with other earlier quantitative studies of influential factors in food store choice. In our study and in a study of urban participants (63% African American and 81% female) (M. C. Wang, et al., 2008), safety was cited as an important factor, which may be partially due to the gender composition (i.e., predominately female) of both of these samples. However, in contrast to the Wang study, the availability of cultural/ethnic foods was not mentioned by the participants in the current study as important in their food store choice. In addition, consistent with research among urban Latinas (Ayala, et al., 2005) and lower-income populations (Wiig & Smith, 2009; D'Angelo, 2011), participants in the current study indicated that freshness of food was a key factor in their choice of their primary store. In addition, similar to Wiig & Smith and D'Angelo et al., price emerged as a key factor in the current study. However, in contrast to Wiig & Smith, greater emphasis was placed on proximity to home in the current study. There was a clear focus on closeness to public transportation in the Wigg and Smith study, which was not mentioned at all in the current study, perhaps because of the limited availability of public transportation in Arkansas. Similar to D'Angelo and colleagues, we found that cleanliness and customer service were important factors in food store choice. Furthermore, several other factors not examined by these previous studies emerged from the current study as related to food store selection, including availability of non-food merchandise and the availability of certain food brands.

Should these findings be replicated in other settings and using different methodology, our findings regarding how individuals select their primary food store may be beneficial in the development of policies and programs to promote environmental changes crafted to support dietary change and obesity prevention in these geographic regions. Notably, it appears that store interventions may wish to focus on the availability and quality of fruits, vegetable and

meat as well as the price of fruits and vegetables, in order to improve satisfaction with the food store. Particularly in rural areas, where the stores tend to be small and shelf-space at a premium, a focus on perishable foods such as fruits, vegetables, and meats may allow rural residents to make the strides they desire toward dietary change. Nonetheless, rural areas in particular had a wide range of alternative sources for fruits and vegetables (e.g., seasonal fruit and vegetable stands) other than traditional food stores. It is possible that facilitating alternative sources of fruits and vegetables could be a lower-cost option for improving food access in rural areas than would be modifying existing grocery stores.

This study had several strengths and limitations that should be considered when interpreting the results. First, the researchers were successful in recruiting African American and Caucasian participants in both urban and rural areas that allowed comparisons by race and rurality; furthermore, the participants represented a broad range of ages, education levels, and employment statuses. Although the majority of participants were female, it is likely this is representative of the composition of primary household food shoppers; however, all of the participants belonged to households with at least two individuals and thus the findings might not generalize to individuals who only shop for themselves. In addition, all participants were from one relatively rural state; thus, the results are likely most relevant to other rural states. Given evidence that rural residents have a high rate of obesity (Jackson, Doescher, Jerant, & Hart, 2005; Patterson, Moore, Probst, & Shinogle, 2004) as well as a high concentration of food deserts (Powell, et al., 2007), research focused on a rural state may be crucial for developing intervention strategies for this vulnerable population. However, caution is required in generalizing to large urban environments because urban settings in Arkansas tend to be smaller than those in major metropolitan areas and therefore different themes might emerge in truly large cities. Despite the smaller cities, the results from the current study demonstrated some overlap with studies conducted in a less rural state with more large metropolitan areas (e.g., California)(Ayala, et al., 2005; M. C. Wang, et al., 2008; Wiig & Smith, 2009). Nonetheless, future research may wish to explore factors important to food store choice in more concentrated urban populations.

This study adds to the growing body of literature about food store choice and the challenges facing rural population in food store access. Although previous research has noted racial differences in food store access and associated health disparities, we did not find significant race-based differences in desired qualities for a primary food store. It will be important to further examine the themes identified in this study to determine the relative importance of each factor as well as potential demographic differences (e.g., age, rurality).

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Highlights

- We examined factors influencing primary food store choice.
- Focus groups were formed based on rurality and racial composition.
- 4 themes emerged: proximity; prices; food availability/quality; store attributes.
- There were persistent rurality differences in factors influencing store choice.
- Factors were similar between African-American and Caucasian participants.

Table 1

Influential Factors in Food Store Choice

Themes	Categories	Racial/ Rurality Difference	Population	Raw Data Clusters
Proximity	Choice of a proximal store, balanced with other characteristics	Rurality	Urban	<p>Participant 1: "There was a [chain supermarket A] like 5 minutes away and there was a [chain supermarket B] that was 10 minutes away, but we would go to [chain supermarket B] instead of [chain supermarket A]."</p> <p>Participant 2: "Yeah, [chain supermarket A], was more expensive."</p> <p>Participant 3: "More expensive and I don't think the quality was as good."</p>
			Rural	<p>"It's so frustrating, when you cook, or you're doing a cake or something and lack one more cake mix and you're doing a wedding cake and you need 1 cake mix, and you go 9 miles up the road to the only grocery store available to you, and you're going to pay \$5 for one cake mix. Or they don't have it."</p> <p>"When I go to the grocery store, I have certain items I get at certain stores. I'll go to chain supermarket A, I get a lot of my household stuff there. And I'll get some food stuff there, depending on what they got on sale, but for the majority of my food, I go to smaller, chain grocery store B, I get the majority of my food at chain grocery store B, and then [the dollar store]. I'll get a few things out of there, and that's it. And all of those are generally kind of close. I'll start at chain supermarket A and then work my way back in, and then about maybe 2–3 hours, I'm back at home, because I can't shop all day."</p>
Financial Considerations and Strategies	Number of stores at which to shop	None	N/A	<p>"I don't generally go to [organic foods store A] or [organic foods store B], because it's a lot more expensive than [chain supermarket A] or [chain supermarket B]. My husband is convinced chain supermarket B is a lot cheaper than chain supermarket A. I'm not so convinced, but I think they're pretty close. So that's an issue for me, price."</p>
	Choosing stores with lower prices	Rurality	Urban	<p>"You don't want to shop at [the locally owned store] because if you go to [the large chain store] and spend \$50, you may spend \$75 at [the locally owned store]."</p>
			Rural	<p>Participant 1: "But the thing about it is, why people don't eat as healthy as they should is because the healthy food is so expensive."</p> <p>Participant 2: "You can buy junk food a lot cheaper."</p> <p>Participant 3: "Those Oreos didn't cost near as much as that big old thing of vegetables."</p>
Food Availability and Quality	The cost of fruits and vegetables	None	N/A	<p>Participant 1: "But the thing about it is, why people don't eat as healthy as they should is because the healthy food is so expensive."</p> <p>Participant 2: "You can buy junk food a lot cheaper."</p> <p>Participant 3: "Those Oreos didn't cost near as much as that big old thing of vegetables."</p>
	Prioritizing health or food prices	None	N/A	<p>"Healthy is expensive, so I just have to pay a little more money."</p>
Store Characteristics	Availability of desired fruits, vegetables, and meat	None	N/A	<p>I shop at [chain supermarket] at a specific location because I like the vegetables are fresh, and the meat is fresh, and that's what determines where I shop. Quality."</p> <p>Participant 1: "At the store that we listed that we go to all the time, that's the number 1 store that usually somebody gets abducted from."</p> <p>Participant 2: "Or gets attacked in the parking lot."</p> <p>Participant 1: "Or gets shot right there in the parking lot."</p>
	Cleanliness	None	N/A	<p>"Well, a lot of times you go in there you may see some green flies or dead flies laying around. It matters. You want cleanliness, and you don't want to smell no odors. Not when you're shopping, sometimes you get a whiff of something that shouldn't be."</p>
	Customer service	None	N/A	<p>"If you go into a store and you speak to someone, the security or whatever, and they don't acknowledge you, that mean you</p>

Themes	Categories	Racial/ Rurality Difference	Population	Raw Data Clusters
				<i>need to turn around and go back out....because the simple fact is, if you can't acknowledge me, how good is my money to you?"</i>
	Availability of non-food merchandise	None	N/A	<i>"I choose [chain supermarket] because I can call [chain supermarket] my 1-stop shop. Because you can basically get just about everything you want there."</i>
	Availability of desired brands	None	N/A	<i>"I'll buy the store brand in certain things, but sometimes it's just got to be [brand name] if I want canned peaches. It's got to say [the brand name]."</i>