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Low-Income Caregivers' Attitudes and Behaviors on Children's Diets: Emergent Themes on Cultural Influences and Perceived Value of Nutrition Information from Healthcare Providers

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Abstract

Introduction: Limited access to affordable, healthy food and identifying as African-American or Hispanic-American are associated with greater risk of childhood obesity, especially for low-income individuals. **Purpose:** To report on (1) the emergent theme of the influence of culture on primary caregivers' behaviors and motivations when preparing meals for their families; and (2) primary caregivers' perceptions of the nutritional information they receive from health care providers. **Methods:** Twelve focus groups with low-income, adult primary caregivers of children ages 3 to 6 years were conducted in Texas and the DC-Maryland-Virginia region and were segmented by race/ethnicity and access to grocery stores. **Results:** Culture emerged as an important theme in influencing which foods participants cook at home. In some cases, that influence spilled over into the child's diet. In other instances, the food that participants reported making for their children varied from the food they make for themselves. Participants reported having high trust in health care providers, but acknowledged that health care providers' nutritional advice might not always be applicable. **Discussion and Conclusions:** Our findings highlight the importance of considering the role culture might play in influencing and informing caregivers' decisions regarding children's diets, and also better understanding caregivers' perceptions of health care providers as a source of nutrition information for their children.

Keywords
child obesity, low-income, primary caregiver, cultural influence, focus groups, nutrition information, health care providers

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Introduction

Childhood obesity continues to be a major public health crisis in the United States.[1] In 2015 to 2016, the prevalence of obesity was 13.9% for preschoolers (aged 2-5 years) and 18.4% for school-aged children (aged 6-11 years).[2] Socioeconomic status (SES) and race/ethnicity have emerged as 2 key risk factors for childhood obesity.[3,4] Children from lower SES are more likely to be overweight or obese, less likely to have healthy dietary habits, and more likely to have lower levels of physical activity.[3] This association is exacerbated when those children are also African American or Hispanic.[3,5] Health care providers (HCPs) can support children from these low-income, racially diverse families more effectively by understanding where the caregivers of these families get their nutritional information and the lenses through which they interpret that information.

Primary caregivers cite HCPs as a primary source of health and nutrition information for their children but also

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rely on many other informational resources for day-to-day ideas and questions. These additional sources can be categorized as interpersonal resources (eg, friends, family, HCPs) and media. Research suggests that the internet and HCPs are the most common sources for health information,[6] but that the use of this information is moderated by perceived trustworthiness.[7] The literature also shows that HCPs, print media, and community organizations are effective resources in encouraging healthy behaviors.[8] As such, HCPs occupy a unique space in the health information landscape as one of the most utilized health information resources and among the most effective sources in encouraging healthy behaviors. This makes it all the more imperative that HCPs maximize their limited time with young children's caregivers by providing nutritional information that is relevant and actionable for low-income, racially diverse families.

Such relevant information should include a thoughtful consideration of the barriers and challenges that low-income, racially diverse families face when preparing food for their families. For example, research shows that culture may influence preparation to the extent that it influences which foods caregivers are familiar with and consider appropriate for their young children to eat.[9-11] Additionally, caregivers may struggle to find fresh ingredients for these dishes and may, instead, turn to more processed and less nutritious versions. This issue is exacerbated by the fact that low-income caregivers are more likely overall to have limited access to grocery stores and affordable fresh foods.[12,13]

The purpose of this study was to gain a deeper understanding of low-income, racially diverse primary caregivers' views and experiences around feeding their young children and the sources from which they derive their food and nutritional information. We conducted 12 focus groups segmented by access to grocery stores, geographic location, and race/ethnicity to ensure representation from a variety of opinions and experiences. Although questions about culture were not specifically asked in the groups, this theme emerged organically. These emergent findings add to the existing and growing body of evidence on the importance of culture among low-income and racially diverse families in affecting their dietary choices for their children, as well as the role of healthcare providers within this population. Additionally, qualitative methods allow us to explore not only the intersecting influence of income, race, and culture but also participants' perceptions, perspectives, and experiences in their own words. Therefore, this paper aims to provide insight into the emergent themes of how primary caregivers of children ages 3 to 6 perceive (1) the influence of culture on their behaviors and motivations when preparing meals for their families, and (2) the helpfulness of information provided by healthcare providers. The main study findings will be summarized elsewhere.

Methods

This study consisted of 12 focus groups conducted in 2018 to 2019, each lasting 90 minutes and comprising 7 or 8 participants. All focus groups were held in professional focus group facilities and recruitment was managed through these facilities. Focus group locations were determined by region (Texas or the greater Metropolitan DC-Maryland-Virginia, or DMV, area) and access to grocery stores (higher access or lower access, as defined by USDA's Food Access Research Atlas).[14] The 4 locations were Arlington, VA and Dallas, TX as the high-access regions; and Baltimore, MD and Austin, TX as the low-access regions. (One focus group was held in Richmond, VA instead of Arlington, VA. This group included only White participants, and took place on March 26, 2019. The other groups were held August-September of 2018.) Three focus groups were held in each location and were segmented by race/ethnicity. In both Arlington and Baltimore, 1 focus group included only Non-Hispanic White participants, 1 group included only African-American participants, and 1 group included people of any race/ethnicity. In both Dallas and Austin, 1 focus group included only Non-Hispanic White participants, 1 group included only Hispanic participants, and 1 group included people of any race/ethnicity.

Participants were 18 to 60-year-old, low-income, primary caregivers of young children. Criteria for "low income" were adopted from the U.S. Department of Health and Human Services (HHS) poverty guidelines.[15] Primary caregivers were those who live with at least 1 child age 3 to 6 years and do most of the food shopping and meal preparation for the household. Including primary caregivers instead of only parents allowed us to capture the experiences and viewpoints of others who may serve that role, which is particularly common in certain low-income Hispanic households.[16]

Participants who ate food prepared by a restaurant or convenience store 5 to 7 days a week were screened out of the focus groups since they might not be able to answer questions surrounding food shopping and meal preparation adequately. Participants in the high-access groups were eliminated if they reported living 5 or more miles from the nearest grocery store or supermarket; participants in the low-access groups were eliminated if they reported living less than 1 mile from the nearest grocery store or supermarket. Demographic data were also collected.

This study was determined to be exempted from review by the U.S. Food and Drug Administration Research Involving Human Subjects Committee (Protocol number 18-029F). Participants were provided with written informed consent prior to study enrollment and received $75 in appreciation for their time.

Focus groups were moderated using a semi-structured interview guide. Participants were asked to discuss their

experiences and thoughts when shopping for groceries, selecting what to prepare for their children at home, and choosing food for their children when eating outside the home; their views toward the terms, "healthy," "fed-well," and "overweight"; their reactions to figures of boys and girls of varying body size; and resources they use to get information on healthy eating and nutrition. Participants were not asked specifically about culture, race, ethnicity, or income.

Each focus group was recorded and transcribed (personally identifying information was removed). Two researchers involved in the project coded the transcripts using NVivo software. Both were trained on the codebook and both coded the first transcript to ensure a between-coder kappa $>.70$. Participant responses were coded to identify topics that addressed the primary goals of the study. Themes were sorted and compared between regions, access to grocery stores/supermarkets, and race/ethnicity.

Results

When asked about what foods they prepare for their children and why, participants in multiple groups brought up their cultures and how that influenced the food they prepared for their children. Some participants stated that their children love foods that reflect their heritage.

- "*Mine's just like I said, the chalupas. The little one, he loves it. He loves the little pack of beans they have at the local supermarket and then ground beef and like that."*—Texas, Low Access; Hispanic Only Group

Others noted the challenges that arise when children do not like their traditional dishes.

- "*My one daughter, she doesn't like Mexican rice, she likes white rice. So she won't eat that kind of rice, so I'll make sure I get rice, and I'll usually cook a little pot for her."*—Texas, Low Access; Any Race Group

In one group, participants expressed concern that if their children ate more traditional foods outside the home, they may experience embarrassment or teasing.

- *"My husband and I cook a lot [of] Cuban. And it's very Hispanic. So [my child] likes to eat all that kind of food. And he don't eat food from school. He likes, I get embarrassed 'cause he wants to bring [to] school black beans and white rice and a pork chop. I say, 'You don't bring that to school. It's gonna go to the principal.'*—Texas, Low Access; Any Race Group

Participants in most groups said they relied on many different sources for nutritional information and that who they listened to most depended on what they were asking and how applicable they perceived the answer to be for their specific child and lifestyle. In every group, participants considered HCPs to be trustworthy and appreciated that they could provide an objective measure of their child's developmental progress.

- *"I would say just starting with a pediatrician, because then you get the specifics on your child. As far as, are they actually underweight or do you just feel like they are? Are they actually overweight or do you just feel like they are?"*—Texas, High Access; Any Race Group

Despite considering HCPs knowledgeable and trustworthy, participants also noted concerns that the advice and guidance that HCPs provided was not always relevant to their children or circumstances. Common concerns were that HCPs' nutritional advice was outdated, that HCPs did not spend enough time with participants, and that HCPs may not understand participants' perspectives, beliefs, or challenges.

- *"I don't feel like pediatricians are knowledgeable on nutrition."*—DMV, High Access; White Group
- *"I don't feel like doctors have time. You know, they're seeing patients all day long and dealing with sick babies and sick kids, they don't have time really to maybe be up on nutrition and what's going on in the food industry and that kind of thing as much as we as moms, not to say we know more than doctors, it's just a different level of interest and study and the time that we spent doing the research on our own, than they are able to do."*—DMV, High Access; White Group
- *"I take a little from everybody. . . [My pediatrician] has good advice, but I don't think she ever had kids or raised kids or anything like that, so it's like it's great that you're a pediatrician and stuff, but you're not doing this every day. You're not in our house every day to see the results of all of this. She has good tips, though. So I take a little from the moms, and a little from the pediatrician."*—Texas, Low Access; White Group

Discussion

Focus group findings on the relevance of culture support previous literature showing how the concept of culture helps in understanding how low-income, racially diverse primary caregivers (referred to as "caregivers" for the rest

of this discussion) think about food and nutrition for their children.[9,10,17] For example, the foods that one serves in the home may represent a connection to family, cultural identity, and tradition.[10,18] These priorities, however, sometimes lead to tensions in navigating how caregivers' children view their cultural foods. For example, our results also showed that for some caregivers, culturally different food preferences led to additional challenges such as having to make multiple meals to accommodate their children. In addition, it is worth noting that while some caregivers were proud that their children wanted to eat their traditional cultural foods, others were concerned that their children might get teased or feel embarrassed.

Although participants in this study considered their HCPs trustworthy and credible, they also believed that other sources had either more complete or relevant nutritional information than HCPs. One potential factor influencing whose advice caregivers follow is perceived trustworthiness and personalization of the advice:[7] when individuals perceived less patient-centered interactions with their HCPs, they tended to turn to other sources, such as the internet, to answer their questions. Martin et al highlight the importance of positive physician affect and visit times among African American patients' perceptions of trustworthiness of their HCPs.[19] Therefore, HCPs should consider providing recommendations to caregivers that directly respond to caregivers' stated concerns and circumstances.

Some practical takeaways for HCPs include involving caregivers in discussions identifying and addressing their barriers to adopting certain lifestyle changes rather than having caregivers passively receive information.[20] These discussions could also include how feeding practices might differ by the caregivers' race/ethnicity and whether/how the advice lines up with these practices.[21] In addition, HCPs can leverage the fact that caregivers may supplement advice from HCPs from other sources by having ready a set of credible, culturally relevant, and budget-conscious resources that caregivers can reference in between appointments. Such resources could include government sites and programs, such as WIC, SNAP Ed, and FDA.[22-24]

Findings from this study should be interpreted in light of its strengths and limitations. One strength of this study is that with its relatively large and diverse sample and qualitative approach, the researchers were able to learn of the nuanced ways in which culture influenced caregivers' views on their children's diet and also were able to more closely examine caregivers' perceptions of potential barriers to following their HCP's advice. Culture is a complex and multifaceted construct that can be difficult to define and measure through survey or experimental research. The open-ended nature of qualitative research thus provided us the ability to identify and analyze themes, such as culture, which the moderator did not directly ask about but identified as a new topic of exploration as it emerged. Another strength of this study is that it was conducted in multiple sites and with multiple populations using the same semi-structured guide. This allowed the researchers to identify themes crossing regions and demographics. Similar to other research using qualitative methods, results from this focus group study should not be generalized.

Results from this study support existing research and underscore the importance of culturally sensitive education. For example, Lindsay et al found that Latino parents in Massachusetts could benefit from HCP input that supported "their children's healthy eating and physical activity habits, while taking into account daily life barriers faced by families".[25] The findings in our study similarly demonstrate the importance of HCPs involving caregivers in tailoring a culturally relevant and healthful diet for their children. Although broad recommendations and tips are a good start for educating the general public, culturally specific and sensitive nutrition information may be more relevant and useful for certain sub-populations. In incorporating a culturally sensitive lens to their advice, HCPs would help foster a more encouraging environment where caregivers feel supported to employ the nutrition advice they feel is most applicable to their and their children's lifestyles.

To further explore the influences of culture with low-income primary caregivers, the FDA Office of Minority Health and Health Equity has funded a second round of focus groups with Hispanic caregivers to explore similar research questions as the main study and to examine these outcomes by language spoken at home and level of access. This second study will provide more opportunities to delve into the aspects of culture that emerged from this first round, including the opportunity to better understand whether and how cross-generational and cross-cultural preferences shape caregivers' nutrition plans for their children. For example, we hope to further explore the role of traditional foods in how Hispanic caregivers plan and prepare meals for their children.

Finally, the authors wanted to acknowledge the context within which this article is being submitted and outline the ways in which COVID-19 might influence the applicability of the findings discussed here. It is important to note that COVID-19 has exacerbated the challenges these low-income caregivers faced before the pandemic. COVID-19 has likely created additional stressors for low-income caregivers, which might lead to even more limited access to fresh and healthy food, if not greater food insecurity altogether.[26] Caregivers may also have fewer opportunities to see their doctor, unless they can avail of telehealth.[27] These challenges further highlight the importance of directing vetted and relevant resources to these caregivers.

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