ORIGINAL RESEARCH

Navigating food access and distribution during the pandemic

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ABSTRACT

COVID-19 increased food insecurity among African Americans. However, little is known about the impact of COVID-19 on food access and delivery for this population in Cuyahoga County. The objective of this study was to collect insights into the facilitators of and barriers to food access and delivery from community stakeholders. Methods: A total of 10 in-depth individual interviews with community stakeholders were conducted. Content analysis was used to analyze the interviews. Results: COVID-19 led to immediate and necessary changes to food access and distribution practices. Additionally, the increased utilization of food pantries, limited food supply, and lack of transportation to food pantries were identified as challenges to food access and distribution. However, community stakeholders were able to continue serving the community despite food supply and distribution challenges. Conclusion: This study provided novel insights into the challenges faced by community stakeholders and strategies that can be used to overcome these food dissemination challenges during the COVID-19 pandemic. Nurses can play a key role in addressing food insecurities in African American communities through nursing assessments and advocacy.

Key Words: African Americans/Blacks, COVID-19, Food access, Food distribution

1. INTRODUCTION

In the United States (U.S.), food insecurity refers to an economic crisis that occurs when individuals lack the resources necessary to obtain food to feed their families. Financial hardships such as unemployment and poverty exacerbate the lack of access to food and thus impact health outcomes.[1] Importantly, during the pandemic, the greatest increases in food insecurity were evident among women, veterans, Hispanics, and Native Americans.[2] In the U.S., 33.9% of non-Hispanic blacks reported experiencing food insecurity compared to 16.3% of non-Hispanic whites and 33.3% of Hispanics.[3] Moreover, in 2020, 26.0% of Blacks in Cuyahoga County reported experiencing food insecurity compared to 10% of Whites and 22% of Hispanics.[4] The COVID-19 pandemic has increased the likelihood of food insecurity, especially among African Americans with low incomes.[5] Dubowitz et al.[5] suggested that the lack of access to food pantries during the lockdown and problems enrolling in food assistance programs such as the Supplemental Nutrition Assistance Program (SNAP) may have increased food insecurity among this population. Importantly, the experience of economic hardships, such as housing instability and unemployment, increased the risk of food insecurity during the COVID-19 pandemic.[6] Communities and community organizations

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were pivotal in efforts to mitigate food insecurity during this time of crisis.[7] Nurses can play an important role in addressing food insecurities in the African American community. Nursing interventions such as focused assessments aimed at identifying patients who are at risk for food insecurity and patient advocacy are strategies that can help improve health outcomes and eliminate health disparities among this population.[8] Although studies have addressed food insecurities during the COVID-19 pandemic, few studies have focused on the perceptions of community stakeholders drawn from various organizations that offer regular food pantries and provide supplemental food to predominantly African American communities in this emergent situation.[6] The purpose of this study was to engage community stakeholders drawn from local pantries, federally funded food programs, health centers, and churches to identify COVID-19 relief services as well as barriers to and facilitators of service delivery for African Americans.

2. Community organizations response to COVID-19

2.1 Creativity on the fly

Organizations developed outreach strategies to address food insecurities among underserved populations. For example, the Green Family Foundation Neighborhood Health Education Learning Program (HELP), which is sponsored by Florida International University Herbert Werthein College of Medicine, conducted a needs assessment to identify any food insecurities that existed within their community. Consequently, within the first two months of the pandemic, food insecurity increased from 3.5% to 8%.[9] Based on these findings, the neighborhood HELP program created a food pantry and established a distribution site to address increasing food needs. Although food insecurity rates decreased from 36.9% to 23% as a result of the neighborhood HELP program, they did not return to prepandemic levels. Additionally, the community served consisted primarily of Whites, Latinos, and Hispanics.[9] Other community organizations developed creative strategies for food delivery. For example, one food pantry worked with volunteer drivers who would use their own cars to pick up items from the food pantries to deliver to community members. Another food pantry provided bus passes for community members who lacked transportation.[10, 11] However, little is known about the impact of these services in predominantly African American communities.

Micropantries were used to increase food access in neighborhoods during the pandemic. Micropantries are small structures located in the community that enable individuals to either take or leave food items. Wilson et al.[12] did not include community stakeholders from regular food pantries; most of the community stakeholders were associated with religious organizations, and the study did not focus on communities that were predominantly African American. However, the results of this study indicated that micro pantries can provide supplemental food to help address food insecurity during the pandemic.

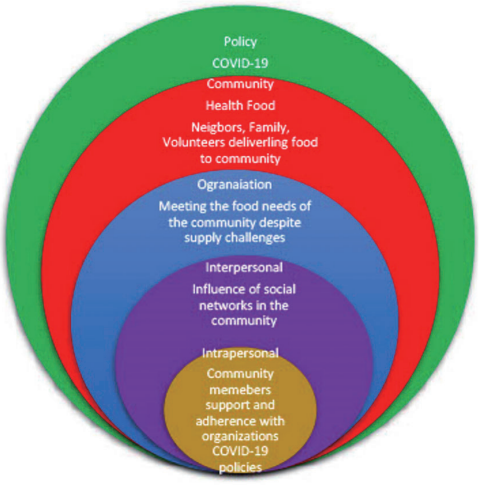
2.2 Pivoting during COVID-19

Reliance on food assistance programs was noteworthy during the onset of COVID-19. The corresponding food insecurity, loss of income, lack of food at grocery stores due to high prices, and a lack of food availability increased the need for food assistance programs. This situation and the demand for food assistance programs presented unique challenges for community stakeholders. Food pantries were then required to adopt more restrictive policies due to public health safety guidelines that were imposed. For example, prior to the pandemic, food pantries distribute food face-to-face. However, as a result of the pandemic, many food assistance programs were required to pivot to a different method of food distribution.[9–11] This changed the way in which food pantries distributed food to the community. As a result, community members were limited in their food choices and their ability to choose their own food items in the pantry. Therefore, clients were limited in terms of their food choices. Additionally, food was packaged and bagged for distribution; therefore, community members were not able to decline food items that were not culturally appropriate or desired.[10] Other food assistance programs attempted to provide culturally appropriate foods when available.[9] In addition, food assistance programs received only limited volunteer assistance, which required food pantries either to eliminate or limit their volunteers, as many such volunteers were senior citizens and therefore more vulnerable to contracting COVID-19. Pantries opted to enable volunteers to distance themselves from the clients to maintain the health and safety of both the clients and the volunteers.[10, 11] Other pantries used online ordering to assist with the high demand for food assistance and lack of volunteer availability.[10] Some pantries offered home deliveries that provided contact-less food distribution. Other food pantries offered mobile deliveries through a mobile unit that was stationed throughout the week at a certain location where clients could easily access food.[10]

3. Conceptual model

In the current study, the Social Ecological Model (SEM) was used to develop a community-based perspective of the facilitators and barriers to service delivery for African Americans. According to the SEM, personal and environmental factors can influence the health behaviors exhibited by an

individual or a population, such as those pertaining to public policy, community, institutional, interpersonal, and intrapersonal factors.[13] For the purposes of the current study, the researchers focused on community, public policy, and institutional factors to gain insight into the factors that can promote or hinder community stakeholders' ability to provide services for this population (see Figure 1).



SEM factors that influence food access and delivery.

Adapted from McLeroy et al., (1988).

Figure 1. SEM level of influence

4. METHODS

4.1 Sample/setting

A purposive sample of 10 local community stakeholders, age ranged from 35-65 years (including 9 females and 1 male age) were recruited in the northeast region of the U.S. The inclusion criteria consisted of the following: At least 18 years and older, English speaking, employed in an organization that provided food relief services to African Americans, and willing to share their organizations service delivery experiences during the pandemic. The sample consisted of six food pantry managers drawn from churches and community centers, a director drawn from a distribution food bank center, an executive director of a health clinic that provided free health services, a food and nutrition manager, and the vice president of marketing at a local health center that serves clients with low income. Due to the COVID-19 pandemic, most interviews were conducted via Zoom. One interview was conducted in person while maintaining social distancing.

4.2 Ethical considerations

The study proceeded following approval from the Institutional Review Board, whose task is to ensure that research participants are protected from harm. The researcher exercised neither influence nor authority over participants. Participants were identified in the tape recordings by a pseudonym that was given to them prior to the start of the interviews. The researcher determined that participants in the study faced only minimal risks.

4.3 Trustworthiness

In qualitative research, validity and reliability are assessed in terms of credibility, transferability, dependability, and confirmability. Determining credibility involves establishing that the results are believable and are based on the perspective of the research participants.[14] Credibility was enhanced through the use of bracketing to minimize the intrusion of the researcher's preconceptions and biases regarding the data. Moreover, credibility was established through member checking. At the end of the interview sessions, participants were invited to share their assessments of the accuracy of the discussions. Transferability refers to the extent to which findings are generalizable to other settings and populations.[14] Transferability was ensured by providing rich descriptions of the interviews to determine the applicability of the research findings to other settings and populations.

Dependability indicates the degree to which, within the same context, similar findings would emerge through the use of the same methods to investigate similar participants.[14] To ensure consistency, all interviews were conducted by the researcher. Interpretations were recorded to ensure that the researcher was able to verify and track the interview sessions. To increase dependability, the researcher strictly adhered to the procedures. The researcher maintained an audit log to document all research steps and choices so that other researchers can replicate the study.[15] Finally, confirmability refers to the degree to which the findings of the study reflect participants' voices and the degree to which the participant data inform all emerging themes.[16] To ensure confirmability, the researcher set aside any preconceptions or biases and focused on the insights obtained from the participants.[17]

4.4 Data collection and analysis

An invitation to community stakeholders was extended in the form of a letter that was sent by both mail and email. Additionally, the researcher invited community stakeholders to participate in the study by phone. Individual interviews were conducted between January and April 2021. The purpose of the study was explained and informed consent obtained. Due to the COVID-19 pandemic, nine of the interviews were conducted via Zoom and one interview was conducted in-person while maintaining social distance. Each individual interview lasted between approximately 30 minutes and one hour. To guide the interviews, a semi-structured interview guide was developed by the researcher based on a review of

the literature and the conceptual framework. Interviews were video and audiotaped and transcribed verbatim.

Audio recordings of the interviews were transcribed verbatim by a professional transcription service to support the analysis. Once the data were transcribed, the primary and secondary coder read the transcripts to familiarize themselves with the content. To aid in the coding process, a codebook that featured key topics from the interview guide was created. Content analysis was employed to analyze the data. Coders independently reviewed each transcript and compared categories and subcategories. New codes were added and edited as necessary to reflect the emerging themes. Once this phase was completed, the final names and descriptions of the themes and subthemes were created.[18] The data were uploaded into NVivo 12 software to facilitate data storage, organization, and management of the information.

Table 1. Results of data analysis

Themes	Illustrative Quotes
The need is real	*We had to pivot quickly to a drive-in situation or drive-thru situation.* *So now, since the pandemic, we have served up to 300 families."* *"one of the biggest challenges is getting products because with the pandemic, there are more and more people coming for food…everything we need, we are still able to order, but some things become unavailable because… the supply is not meeting the demand."*
Community resources before and during COVID-19	*Pre-COVID-19:* *"As an organization, we'd have different health care organizations come and do a presentation. Uh, maybe you think you've got everything in your hospitalization or your, or your, uh, Medicare covered. And you find out there's some short ends that you need to know that you can go to the doctor here. And the problem is that some seniors are not computer savvy. So, that's why you have to have someone come and tell them and talk to them and give them handouts."* *we've had a couple groups of top of my head. I cannot remember their name that used to come in and they would talk to, you know, some of the folks that were coming in the center regarding, um, do you know what they were doing and, um, you know, how they were eating, whether or not they had access to food or access to, um, you know, any kind of financial assistance.* *During COVID-19:* *"So, we have been doing tele-health appointments for the last eight months. Um, and those telehealth appointments are open to anyone, and there's various medical services, um, women's health services and nutrition counseling."* *"We have a navigation team that connects people with, uh, resources. So, if they are, um, food insecure, we can help them get set up with, uh, benefits or get food bank, um, boxes delivered."* *"Think just kind of general knowledge as well because we're struggling with providing nutrition education now. Um, and this setting, we're not able to kind of give people some of the, some of the support to build and make those decisions on their own."* *"We shared lots of like downloadable resources on how to store different types of produce and what you can do with different vegetables, how to cut out sodium, those types of things."*
Community connection	Pre-COVID-19: *"We have a, a wellness matters ministry. Um, prior to the pandemic, they provided a lot of exercise classes. They provided cooking classes. They, um, also provided, um, different nutritional things."* *"Various things that they can do such as, um, puzzles and card games. There's a very, very serious quilting class. Um, they have, uh, sewing classes, arts and crafts. They do harder culture. Um, and especially, they go on trips." "We had movie night."* During COVID-19: *"Very few people are allowed into the pantry setting, you know, reducing time by not allowing people to shop and then kind of relying more on that drive-through model."* *"Text. And then the limited, limited interaction between managers and clients and even just kind of, um, an influx of new clients and new patrons who are using the charitable food distribution, you know, the managers don't know everybody as much anymore. "*
Nimble and generous to the community	*"COVID has allowed us to be successful in terms of the generosity that the community has shown us, so that we are able to purchase the additional foods that we need to meet the need."* *"So, we're preparing to operate as if no federal dollars are coming in so that we can prepare our budget and do a reforecast so that we can accommodate the community's needs in terms of hunger."* *"So, we serve almost 50,000 thousand first timers who have never received food from a food bank or a partner network during the pandemic. So, we are being mindful and trying to go back to the drawing board to determine exactly what the need will be 10 years from now."*

5. FINDINGS

5.1 The need is real

During the pandemic, community food pantries provided both nonperishable and perishable foods to African Americans in an effort to mitigate food insecurity. The community members' needs were significant, and their consistent participation heightened the urgency of this task. The community members conveyed their support for the food pantries' efforts by providing feedback to the organization and consistently following the organization's COVID-19 policies (see Table 1).

Due to community members' input, food pantry leaders understood that many were experiencing difficulty accessing transportation. Many African Americans missed the opportunity to access food supplies due to a lack of transportation. Thus, neighbors, family members, and volunteers delivered food supplies to households with inconsistent or no access to transportation. Finally, access to food supplies was exacerbated when several food pantries closed despite significant community needs. These closures were due to nationwide supply chain issues. As one community stakeholder mentioned (see Table 1).

5.2 Community resources before and during COVID-19

5.2.1 *Pre-COVID*

Prior to COVID-19, community organizations were able to provide in-person support to African American community members. For example, community stakeholders reported offering in-person nutrition classes and exercise classes, and they would host workshops regarding how to complete Medicare and Medicaid forms. Additionally, health care organizations would provide health screenings and counseling sessions at community organizations (see Table 1).

5.2.2 *During COVID-19*

During COVID-19, organizations engaged in very few in-person interactions with their African American community members due to the need to maintain social distancing. Therefore, organizations were required to develop alternative offerings for their clients. For example, organizations pivoted to electronic connection methods such as telemedicine and teleclinics to offer health care advice as well as other medical services. Other community stakeholders offered virtual cooking classes and exercise classes in an effort to develop alternative ways of maintaining their presence within the community members. Finally, community organizations provided their members with handouts on topics such as how to prepare nutritious meals using the items from the food bank (see Table 1).

5.3 Community connection

5.3.1 *Pre-COVID-19*

Prior to COVID-19, community organizations were able to offer many in-person events to foster social connections for African Americans. For example, community stakeholders reported hosting breakfast gatherings, senior trips, in person cooking classes, computer classes, literacy classes, and movie days. In addition, community members were allowed to try on donated clothing before making their selections (see Table 1).

5.3.2 *During COVID-19*

During COVID-19, community stakeholders reported spending less time interacting with community members due to the need to maintain social distancing. As a result, they had limited opportunities to establish social connections with community members, staff, and volunteers (see Table 1).

5.3.3 *Nimble and generous to the community*

Community stakeholders face increased demand for food assistance within their communities. Therefore, to accommodate the growing needs of the community, organizations increase the amount of food provided or the frequency of food delivery and distribution to the community. Other organizations pivoted to a home delivery model in which volunteers would deliver food pantry items to seniors who were registered with the community organization. Other organizations were able to purchase additional food items to meet the needs of the community as a result of generous monetary donations from local organizations (see Table 1).

6. DISCUSSION

African Americans households were disproportionately affected by the COVID-19 pandemic compared to households of other races and ethnicities.[3,4] In the midst of a crisis, community stakeholders were challenged to develop novel approaches to food distribution and access for African Americans who were in need of food assistance. While maintaining the Centers for Disease Control and Prevention (CDC) guidelines for social distancing, community stakeholders were able to meet the increased demand for food assistance. However, high food demand changed their regular ways of distributing food. For example, community stakeholders developed ways to provide home delivery services to seniors who were homebound during this pandemic. Also, community stakeholders were required to develop alternative ways of distributing food from the pantry. In addition, drive-through pantries were created in African American communities to enable community members to access food from pantries. Additionally, community stake holders developed creative ways to continue programs that were once held in-person. For example, community organizations offered telehealth services as

well as virtual cooking and exercise classes. This pivot in the way in which community resources were offered is similar to the findings of Tanumihardjo et al.,[9] which focused on the virtual delivery of previously in-person programming such as chronic disease education. Also, this type of delivery response is similar to the findings of Garba et al.,[11] in which community stakeholders responded to the increased need for food assistance by developing a home food delivery system to address insecurity needs in the community. In addition, as a result of the changes to access and food distribution, community stakeholders lost their social connection with community members, as they had less contact with community members due to the need for social distancing. This impact on social connections is similar to the findings of Winkler et al.,[10] according to which the restrictions associated with public health guidelines resulted in a loss of personal connections and social relationships with the community.

6.1 Recommendations and implications for nursing practice

Food insecurity is an ongoing social and health crisis, especially for African Americans. Nurses can serve these communities most effectively by incorporating food insecurity screenings into their routine admission assessments. Incorporating food insecurity screenings can help nurses identify patients who are at risk of or currently experiencing hunger. In addition, nurses can refer these individuals to other health care providers such as social workers and/or case managers. Social workers and/or case managers can assist African Americans with accessing local food pantries and provide them with the resources to government programs such as the Supplemental Nutrition Assistance Program (SNAP) and other subsidy programs that provide financial assistance to purchase healthy foods.[19] These types of practical resources may improve health outcomes, thereby eliminating health disparities.[8]

Finally, nursing practice should include advocating for health care policies that can address the root cause of food insecurity and poverty. Therefore, nurses must actively support health care policies that can provide innovative solutions to end food insecurity. One way in which nurses can become involved in health care policy is by joining forces with state and local nursing coalitions and organizations to help draft position papers on the impact of food insecurities on health outcomes for African Americans. Additionally, nurses can write to their local, state, and federal legislative officials to investigate their current health care policy agenda on food insecurity and health outcomes among African Americans.[20] The purpose of this communication is to inform legislators and influence health policies that can address the needs of this population.[21]

6.2 Limitations

There were strengths identified in the study. For example, the study used a qualitative design which allowed the researcher to gain multiple in-depth perspectives from community stakeholders regarding their experiences navigating food access and distribution during the pandemic. The study used a purposive sampling to recruit community stakeholders from various organizations that provided relief services to African Americans. There were several limitations identified in the study. For example, this study focused on one region in the U.S., one ethnic group, and was limited to one area of the city.

The sample size was limited to 10 community stakeholders. The study involved one ethnic group, and we are thus unaware of the challenges to distribution and access faced by other ethnic communities. Additionally, community stakeholders may have been biased toward their own organizations and may not have fully revealed all aspects of their organizations' experiences with food access and delivery during the pandemic.

7. Conclusion

Food security has been a pressing social issue in recent years and has been cited as a contributing factor to negative health outcomes.[1] The systems and policies that inadvertently lead to poor access to food supplies, including the cost of nutritious foods, which thus make such foods inaccessible to certain populations with lower incomes, have also received significant criticism.[6] The results of this study provide further evidence indicating that under resourced populations such as African Americans suffered greatly during the pandemic. Several factors contributed to these challenges; however, poor transportation, the loss of work, and the closure of several food pantries were the major barriers in this context.

The remaining community stake holders, in partnership with their community members, supported each other during the COVID-19 pandemic. Food pantry leaders developed policies to protect their members in line with public health recommendations regarding COVID-19. Despite a decrease in social connections between community members and stakeholders, members respected the efforts of the stakeholders, complied with the pantries' requirements, and helped to distribute goods to households that lacked transportation. These efforts demonstrate commitment to the community on the part of both community members and stakeholders. Finally, nurses can further address food insecurities in African American communities through activism and routine food insecurity assessments upon hospital and clinic visits to eliminate

the existing health inequities.

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AUTHORS CONTRIBUTIONS

Dr. Angela Groves was responsible for study design, revising, data collection, data analysis, and drafting the manuscript. Dr. Roche-Dean was responsible for data analysis and drafting the manuscript. Dr. Mars and Dr Ndiwane was responsible for revising the manuscript. All authors read and approved the final manuscript.

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CONFLICTS OF INTEREST DISCLOSURE

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

INFORMED CONSENT

Obtained.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

DATA SHARING STATEMENT

No additional data are available.

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