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Older Adults and Photo-Elicited Perspectives on Shopping for Groceries in a Changing Community

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Abstract

Background: A community experiencing gentrification created challenges for older adults and their ability to access food. The purpose of this qualitative study was to examine barriers and facilitators perceived by three urban-dwelling older adults during their grocery shopping experiences.

Methods: The researchers conducted photo-elicitation supported interviews to gather information on grocery shopping from three older adults attending a local senior center. Photo-elicited interviews were conducted, and the thematic analysis examined the participants' perspectives on their experiences.

Results: Thematic analysis revealed the participants' experiences in a changing landscape. In the categories of community resources, transportation, and the store, analysis revealed the following themes: encountering obstacles, becoming frustrated, and identifying strategies and facilitators. These themes represent a process for older adults whereby they adapt to obtain their needed or desired items when shopping for groceries.

Conclusion: In a community facing urban renewal and gentrification, older adults encountered obstacles and adapted in ways that were productive but not always safe or supportive of good health. This study illustrates the adaptive (or maladaptive) strategies of the participants who are managing change in their community. Advocating for affordable transportation in communities and modifying grocery store layout can support the older adult shoppers.

Comments

The authors report they have no conflicts of interest to disclose.

Keywords

grocery shopping, adapt, community mobility, transportation

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Physical and environmental changes may create barriers to an older adult's ability to access food. These barriers may occur in the community or through the ever-changing grocery shopping landscape (Fristedt, Dahl, Wretstrand, Björklund, & Falkmer, 2014). *The Occupational Therapy Practice Framework: Domain and Process* (American Occupational Therapy Association [AOTA], 2014) identifies the occupations of community mobility, shopping, and meal preparation as instrumental activities of daily living (IADLs). AOTA (2014) describes community mobility as "planning and moving around in the community and using public or private transportation, such as driving, walking, bicycling, or accessing and riding in buses, taxi cabs, or other transportation systems" (S19) and shopping as the act of "preparing shopping lists (grocery and other); selecting, purchasing, and transporting items" (S20). Existing literature addresses community and in-store mobility, yet little is known about specific facilitators and barriers to older adults' shopping experiences or about how older adults adapt to changes in a community experiencing gentrification. This study occurred in a previously low socioeconomic area where older adults were confronted by the process of urban renewal. The exploratory nature of this narrative study revealed how older adults strategize to manage ever-changing barriers when accessing food. Understanding their adaptive processes will aid those who endeavor to support this population.

The ability to navigate in a store and in the community is an important part of grocery shopping. Older adults must consider not only the accessibility of the route to and from the store but also their ability to navigate the route while carrying groceries. Huang, Rosenburg, Simonovich, and Belza (2012) reported that older adults use several modes of transportation to obtain food. These include motorized chairs, paratransit, public transit, shuttle services, and rides from friends or family members. The physical layout of both communities and stores can impact the mobility of older adults. Crabtree and Mushi-Brunt (2013) reported that older adults experience challenges in accomplishing IADLs, including getting to the grocery store, physician appointments, places of worship, and social events. Crabtree and Mushi-Brunt (2013) completed a secondary analysis that found statistical support for an increase in disease and disability rates for older adults with limited transportation as well as for how health factors create challenges in a person's ability to use transportation and access food in his or her community. Health problems that limited the use of public transportation or created difficulty with walking, standing, sitting, or carrying 10 pounds, all indicated a need for assistance when shopping for groceries. Most significant was the finding that "non-driving participants who are transportation disadvantaged were nine times more likely to have difficulty shopping for groceries" (Crabtree & Mushi-Brunt, 2013, p. 214).

Older adults can be limited by environmental factors in the grocery store as well. Yin, Pei, and Ranchhod (2013) identified three main difficulties for older adult shoppers. Shelf height (too high or too low), the size of packaging (multipack items), and store layout or aisle signage all made shopping more difficult for older adult shoppers. Yin et al. focused on technological improvements to reduce these barriers, but low-tech solutions, such as vertical stocking of shelves or requesting items in advance, can also facilitate older adult shopping. Pettigrew, Mizerski, and Donovan (2005) identified issues in the grocery store to include store employees, equipment (working carts and baskets), and the placement of items on shelves. Barriers in stores include narrow aisles, product displays, and shoppers' carts (Huang, Rosenburg, Simonovich, & Belza, 2012). Occupational therapists can recognize the barriers to independent shopping and design ways for older adult clients to adapt.

A combination of barriers in the community and in the grocery store make older adults' shopping difficult. In urban areas, these barriers can create a complex process that influences the healthy diet of older adults. A lack of locally available produce, like fruits and vegetables, is an important policy issue. Morland and Filomena (2008) studied urban older adults and found that for every mile traveled to a grocery store there was a 3% increase in eating nutritious foods. As these older adults traveled away from urban areas to access nutritious foods, they were making healthier choices. The aim of this study was to understand the barriers and facilitators perceived by urban-dwelling older adults during grocery shopping. The following research questions were addressed:

1. How does living in an urban environment positively or negatively affect grocery shopping for older adults?
2. What barriers do urban-dwelling older adults identify regarding grocery shopping in small local markets versus large supermarkets?
3. What facilitates grocery shopping for urban-dwelling older adults in these same markets?
4. What community barriers do older adults face as they navigate to their preferred food source?
5. How do community resources influence urban-dwelling older adults' ability to obtain food?

Method

The institutional review board of a midwestern university approved this qualitative study. The research team collected seven photo-driven narratives from three participants about their grocery shopping. The three participants each reviewed their grocery shopping experiences and, via individual photo-driven interviews, shared their experiences with members of the research team.

Recruitment

Participants were purposely selected adults over 65 years of age who lived in walking distance of the community senior center and a local market. Via presentation and a flyer, the researchers intentionally recruited participants from a senior center in an urban community that was experiencing renewal and gentrification. All of the participants relied on the community senior center for transportation, meals, and social experiences, and they met weekdays in a converted elementary school gymnasium. Transportation included scheduled passenger van excursions to a small grocery store and to a big-box store with a grocery included. The participants also walked to a small local market. They were interviewed about neighborhood walkways as well as the small market experience. Members of the research team presented the study design to prospective participants at the community senior center. Immediately following the presentation, two interested participants reviewed the study parameters and signed informed consent documents. A third participant joined the study after seeing a posted recruitment flyer.

Data Collection

The participants were provided with a digital point-and-shoot camera and information on camera use and safety. Safety information focused on stabilizing oneself in a safe location to take a picture and communicating intentions to others to avoid misunderstandings. The participants were instructed to take pictures of the environment and not to include people in their photos. The photo assignments always included the same instructions. These instructions (i.e., please take photos of things that make your shopping experience easy or difficult) were provided to the participants on a card attached to the camera's wrist strap. Because of the community senior center's established transportation schedule, the participants completed two of their assignments on the same days, shopping first at a big-box store and then at a midsize grocery store 2 weeks later. The third photo assignment addressed barriers in the

community when shopping at a small local market. The participants completed their photo assignments and contacted the primary researcher to schedule their interviews. The interviews lasted 30 min to 1 hr and were scheduled at a location convenient to the participants. Two researchers were present during each interview, with one conducting the interview, which was audio-recorded, and one recording field notes. Following the interviews, the researchers completed reflexivity journals to reveal any bias (Lincoln & Guba, 1985).

Data included photographs and photo-elicited interview transcripts. The participants used photographs to assist recall, enhance description, and aid in the expression of information that would otherwise be unavailable without a visual depiction (Harper, 2002). The researchers downloaded photos from the cameras' SD cards and displayed them on a password-protected laptop computer during the interviews. Descriptive questions (Spradley, 1979) related to the experiences in the photos guided the interviews (see Table 1).

Table 1

Interview Prompts

Can you tell me what is in this picture?
Can you describe for me how you came upon this barrier/support (identified in the photograph)?
How were you able to access your items?
What do you think could improve this scenario?
Can you describe for me why this (photo) is included?
How did it impact your shopping?
Tell me how this space is different from the larger/smaller grocery/local market?

These interview prompts varied with the different stores and photos that were being examined. The interviewers added additional prompts to draw out the stories for improved context and clarity.

Analysis

Transcription of the interviews took place within 48 hr of the interview. The participants were assigned an alias during transcription. Based on areas in the photographs, the researchers initially organized data into three categories: community resources, transportation, and stores. The researchers used thematic analysis as described by Braun and Clarke (2006) to analyze the transcripts. Seven transcripts from photo-elicited interviews were divided among seven researchers; each researcher assigned a code to meaningful phrases in the transcript. The researchers compared codes with a second researcher to resolve any discrepancies. When consensus could not be reached, a third member was consulted. The codes were verified by an outside expert. Through this process, three themes were identified: encountering obstacles, becoming frustrated, and identifying strategies and facilitators. The transcripts were reexamined to explore how these themes appeared in the participants' stories as an adaptive (or maladaptive) process.

Member checking occurred at the start of the second and third interviews to verify themes from individual client interviews (Lincoln & Guba, 1985). The researchers used reflexivity journals to examine bias after conducting the interviews, as well as during data analysis (Lincoln & Guba, 1985). These journals, an outside coding expert, and an audit trail support the trustworthiness of the data.

Results

During analysis of the photo-elicited interviews in the three major areas of community resources, transportation, and stores, the themes of encountering obstacles, becoming frustrated, and identifying strategies and facilitators emerged. These themes highlight the complexity of the grocery shopping experience and are presented under the three content areas of community resources, transportation, and stores.

Community Resources

At the time of this study, resources in this community were rapidly changing, as revitalization moved the neighborhood toward gentrification. The participants shared information about the services and local markets in their community through which they obtained groceries, and they shared their frustrations and the ways to overcome obstacles due to changes in the community.

Encountering obstacles. When asked about small market shopping experiences, the participants commented on the recently announced closure of their small local grocery store:

We are gonna miss Buds cuz it's the only grocery store really, until you get clear up to Safeway. There is no grocery stores around here. Well, I can try Skip's [convenience store] but [it] is so high. They do not have a big variety of groceries if you wanna buy something odd, you know it's like you have to go to a store like Wal-Mart or someplace out of the neighborhood. (Participant 1)

Participant 1 commented on the pricing, location, and variety of other stores compared to smaller local markets. According to her comment, Buds, the small local market, fit her location, price range, and shopping preferences. Otherwise, she traveled to multiple stores to find what she was looking for, which was an inconvenience. When asked about grocery preferences, Participant 3 replied, "Well, I can't prefer Buds because it is being ready to close. So, umm, well Buds has quite a few things that they [Wal-Mart] don't, that I like. Where, they [Wal-Mart] have everything. Buds just has the groceries."

Becoming frustrated. The participants discussed how the small local markets were closing or relocating to different areas of the city, thus eliminating their food sources. "They [thrift store replacing Buds] are just like Goodwill, but, and I said well there goes the grocery store, so, yeah, but you notice in every neighborhood, each side of town, most of the little grocery stores are gone" (Participant 3). Many community changes occurred during this research study that catered to a younger demographic and to city programs geared toward urban renewal. These changes, while positive in many ways, influenced the older adult population's ability to obtain food and to navigate their community, resulting in feelings of frustration. Participant 1 stated:

They (neighborhood development group) buy out the lots and build on them. If the houses are too expensive, I couldn't afford one, and most people in the neighborhood can't afford them, that's why you're getting all the outside people. Doctors and lawyers and things that can afford a \$200,000 home. And it's been that way for years. And, they say they're redoing Fountain Square. Some of the things they are redoing is nice and other things aren't so nice. They got these breweries (laughs). I don't know how many of them we got in this neighborhood right now. Yeah, they got that new brewery down here going on Virginia. But that's, again they got other things in there, they got a beauty salon, I don't know, a new restaurant, I don't know what all else, but it's too far for me to walk to get there, there's no way of me getting there. So, I just don't use 'em.

When asked about the sense of community in her neighborhood, Participant 3 explained changes that she has witnessed: “Yes, I have seen a big change here in Fountain Square.” When compared to another more affluent city geared toward a younger demographic with an active night life, she strongly agreed, stating, “That is exactly what they are doing. It is getting to be like Carmel. I don’t know why” (Participant 3). The same participant voiced her opinion regarding new restaurants built in the community by saying,

They got enough restaurants. Very expensive, but I guess that is progress. I don’t know. I really don’t know. And I am always getting ‘why don’t you sell your house?’ And I am like no way. ‘No, I am not selling my house’. (Participant 3)

These quotes highlight the participants’ frustrations about the changing area, as well as a resolve to remain active members of their changing community. Along with the changes to the community, the participants were frustrated in feeling excluded from city planning (see Figure 1).



Figure 1. Photo taken as perceived barrier in response to prompt on transportation and community.

This included a perceived lack of general awareness that getting around is difficult for older adults, as Participant 1 commented:

See that hole in the sidewalk there? But they didn’t get any new sidewalks on this street, this street is all bad. That goes clear down and there are no sidewalks there any place for five blocks. I counted ‘em. I don’t know why they don’t got sidewalks on the other side of the street. ‘Cuz I couldn’t walk in it, and you couldn’t, if you were riding in a wheelchair or something, you absolutely could not go through there. It’s so there’s just no sidewalk. Ya, I don’t know what the city is planning there either (laughs).

The participants identified these situations as avoidable if city planners were more aware of the obstacles they present to older members of the community. Participant 1 voiced her frustrations about the lack of stores in a walkable distance: “Really, unless they put in another grocery store someplace in this area, and there seems to be plenty of places where they could put it, but every time you hear a new store going in, it’s something else.” The participants expressed a disconnect between their community needs and city planning decisions.

Identifying strategies and facilitators. The initial availability of community resources was viewed as a facilitator in this study. This included the community senior center, the center’s transportation van, and the small local market in walking distance. These entities improved the participants’ grocery shopping experiences by providing access to groceries or hot meals. An additional community resource, identified by Participant 2, was a local church that provided free meals for people

in the neighborhood. She stated, “That church just opened up to the people that they are giving, anybody can come at 11:30 Friday, between 11:30 and 3:00, and they give them meals.”

Another facilitator was that the small local market, Buds, announced its closing during this study (its absence also a pending barrier). This small local market was more responsive to the older adult’s needs compared to the big-box store or midsize grocery store. Participant 3 commented on the customer service of Buds: “Oh, very friendly, yes, they always know my name (laughing) ‘cause I go in there so much, ya know, how are you doing?” She expanded on what made her shopping experience in the small local market so enjoyable by stating, “and I always go in the store and talk to everybody, the owner and all, so they real nice people.” This participant found her social experience to have positively impacted her grocery shopping.

Transportation

As the participants anticipated closure of the neighborhood’s small local market, they also faced reductions in local bus transportation and the ending of services in the area that offered more direct transportation. In the year prior to this study, the van transportation that picked up older adults at their homes and brought them to the community senior center for daily meals and events had ended. Those who continued to attend either walked or relied on family members, when they could help, for rides. The anticipated closure of the community senior center meant that these older adults would be losing their monthly scheduled transportation to stores and restaurants that were two miles or more from their neighborhood. The participants voiced their frustrations with the limited transportation and shared the strategies they created as an adaptive response to transportation obstacles they encountered.

Encountering obstacles. A major obstacle the participants encountered when obtaining food was a lack of transportation to their preferred stores. Many of the participants were forced to consider new options to access stores farther away. Participant 1 referred to the challenge of carrying multiple grocery items over long distances and expressed concern with the changing community landscape related to grocery shopping:

Buds moved over here and they have been there since ‘78, so, you know, it’s been a long time. I don’t know what they are going to do for grocery stores, we need a grocery store. We need a grocery store in this area, ‘cause if you got to walk, sometimes you can’t carry groceries that way.

This comment highlights a participant’s frustration on the changing landscape of her community.

Becoming frustrated. The participants previously used the local community senior center and The Salvation Army van to travel to and from the supermarket. Participant 3 explained, “But now, the transportation was cut so they don’t pick up no more . . . and we get to go to Wal-Mart once per month and Ryan’s once a month.” At the time this research was conducted, older adults were anticipating closure of the community senior center and these limited transportation options would no longer be available. When asked about the loss of transportation, Participant 2 said, “Since they took away our ride, these seniors can’t get to the stores; they can’t get nowhere they need to go, the medicine, the doctor’s, or whatever.” The participants also used public bus routes when able; however, transportation budget cuts and a reduction in routes in the last decade impacted this option (Hayden, 2015). Participant 1 reported, “When I first moved into this neighborhood, we had buses running at all hours. They ran maybe every half hour. But now it’s an hour and sometimes they don’t have a driver and the buses just don’t run.” Participant 1 also noted difficulties with buying more items while using any public

transportation: “If you’re buying a lot, the only thing you can do is get a cab, and it’ll cost you \$5 just to get down there, just to go about a mile and a half.”

Identifying strategies and facilitators. The location of the small local market facilitated Participant 3’s grocery shopping, but also her wellness. When asked how frequently she visited the store, she stated, “Every day,” explaining, “That’s what I do. I walk down to the store because that’s my exercise and I just, you know, might go in there and buy a few items.” The ability to walk to the grocery store was interrupted by Buds closing. This participant’s adaptive strategy was to ride the bus and plan the amount and type of groceries she buys. Since she could no longer walk to a local store each day, she bought fewer perishable food items and her bus trips to the store were less frequent. She reported, “I just get what I really need. I don’t try to make it too heavy and I know I can’t carry this and I can’t carry that. But it’s okay, I just get what I really need.” This exemplifies the adaptations she made to her shopping routine due to the economic shifts that her neighborhood was experiencing. Participant 1 also commented on the unpredictability of transportation to obtain food:

But when I am at home alone and I need something, there is no way I can get it unless I get it from a city bus, and the only one that runs this way is on Shelby and that only runs to 6 at night, and then otherwise, you can only walk [to] where you are going. I can’t do that, and I am just left out. And a lot of people are in the same position as I am.

To adapt to this challenge, Participant 1 strategized by stocking up on food in her home, stating, “If I don’t have the ingredients to make the food, or if I forget the ingredients at the store, I just go to like a sandwich. I always have bread because I always have some in the freezer.” She relied on processed rather than fresh food when unable to access the grocery store. Participant 1 also suggested an increased bus schedule, “Well, it would help if the buses could run often. When I first moved into the neighborhood, we had buses running at all hours.” She felt improving the bus schedule around her neighborhood would allow her to use the system more often, preserving her routine of buying fewer groceries each trip while making frequent trips.

The community senior center initially provided resources that made grocery shopping easier for the participants. Participant 2 stated, “We got 15 seniors that get picked up by this van; they would take them shopping, they would take them to thrift stores, they take ‘em all kind of places.” Yet, these trips had been reduced to once a month. To adapt to the loss of this resource, the participants relied on friends or family, when they were available. Participant 1 stated, “My daughter usually takes me, she is usually good about that.”

Store

The participants noted barriers in the various stores where they shopped. These barriers evoked feelings of frustration, and the participants elaborated on the adaptive strategies they used.

Encountering obstacles. The participants identified barriers in a store, including obstacles in the aisle and in the layout, and a lack of customer assistance. Participant 1 spoke of the physical layout of larger supermarkets and how the aisles were too narrow to maneuver: “You can see those aisles are narrow, one cart can go down, that’s it, no more.” Participant 2 referred to her photograph (see Figure 2): “No, see it’s like a, what do you call them, like a crate thing, see it? It’s got wheels and stuff on it, ladders there, where you can’t get around there unless they move it.” Referring to a different part of the midsize grocery store she noted,

You see they got that cart there, and there’s nobody there, it’s just sittin’ there. You can see where . . . they might’ve started and just stopped, right in the front [of the freezer with

vegetables], right there it is. And, right here, now if you wanna go around here to get some, uh, water or somethin', you gotta wait til they move all that before you can get to it. (Participant 2)
The participant's experience involved grocery items and a worker's restocking process that took up space and blocked the participant's ability to access desired items.



Figure 2. Obstacles in the narrow aisles prevented access to needed items.

Becoming frustrated. The participants expressed frustration with the quality of prepared food that was provided in the larger supermarkets. Participant 2 photographed prepared food and expressed frustration and food safety concerns (see Figure 3):

This chicken was not done, and I took a picture of it. And I went by the lunchmeat and stuff. Well, here they started putting the lunchmeat in, but they had lunchmeat in there all morning. They didn't take it out and put new, they just added to it. (Participant 2)

The participants encountered obstacles in both the community and the stores. As a result, they expressed frustration. Following identification of these obstacles, they shared adaptive strategies and facilitators that they used when shopping.



Figure 3. Photo taken in expression of frustration over food safety (larger supermarket).

Identifying strategies and facilitators. The participants identified specific facilitators in the grocery store as an organization, the labeling of products, and a clean environment (see Figure 4).



Figure 4. Photo taken in response to prompt of facilitators in store (small local market).

Participant 3 discussed products at a small local market and her photograph that shows a smaller overall height of shelves than one experiences in larger stores: “And it was eye level for me, and I could, you know, I could reach everything.” She also stated: “Yes, I like the way that they labeled things to get.” Another facilitator was the cleanliness of the small local market, as Participant 1 noted, “Well, I thought it was real nice there. I mean, it’s all cleaned up.” This experience was different from those at larger supermarkets, where the participants encountered barriers from stocking crates in the aisles.

The participants developed adaptive strategies in response to barriers encountered in the supermarket. Some of the strategies included adaptations that were risky, and they were aware and calculated the risk and reward of behaviors that were less safe. Participant 2 commented on the difficulty of finding a store clerk for help at the big-box store with a grocery: “And there ain’t nobody standing out there to help you so you don’t know. If a stranger come by, I say, ‘hey, excuse me, can you reach this for me?’” The participants described their methods to obtain items when they were unable to find help:

‘Cuz generally, if I’m struggling, somebody would come up and say, ‘well can I help you get that?’ ya know, but this time it was nobody was there so, it was okay I suppose, I managed to get it anyway. (Participant 3)

Participant 3 managed to adapt to the above situation, offering, “I had to reach up [laughs] and kinda hold onto it and then ya know brought it down.” She demonstrated as if reaching up with her arm fully extended and with her finger tips scooting the bag forward into her hands, controlling it as it descended. Her preference was indicated in Figure 5, where she indicated that placing like items on shelves vertically allowed her to better access items.



Figure 5. Photo taken of vertical product display as a facilitator in the small local market.

Others considered unsafe efforts when items they wanted were out of reach on high shelves. Participant 1 offered, “Way up there, those Pepsis weigh 3 or 4 pounds, ya have to lift ‘em about 4 or 5 inches, and I cannot do that. Sometimes they tipped over. Sometimes they fell out on top of me.” In this example, and during other shopping experiences in a midsize grocery store, the participants considered using maladaptive and unsafe means to obtain the item that they needed: “I can’t reach ‘em. Not unless, and if you try to stand on one of these bottom shelves and reach up there, you know what’s gonna happen. They’re all gonna fall down, or you’re gonna fall down” (Participant 1). In the above quotes, the participants demonstrated how they obtained items they wanted without receiving the help that they needed when shopping in large supermarkets, even when they identified those methods as a fall risk.

Participant 1 chose differently, opting to not purchase the item. When discussing the location of items placed on a high shelf, she noted, “They’re angled. So, if you gonna try to reach ‘em, you’ll fall. So, I just don’t, I just leave ‘em alone.” Here, the participant decided not to purchase the item she desired on the angled shelf because she understood that accessing it may cause her to fall (see Figure 6).



Figure 6. Photo taken in response to prompt of in-store barriers.

Beyond the challenge to access needed items, the participants identified how physical barriers in the immediate walking pathway posed a risk for falls, with Participant 2 exclaiming, “Them cords were layin’ across the floor, carts they got them sitting here in the middle of the aisle, you gotta go around ‘em!” The participant identified objects that she had encountered that obstructed a clear pathway through the grocery store, and she described an adaptive response, which was taking a longer route around the obstacle to access needed items.

Related to the in-store shopping experience, the participants shared ideas about how stores can better meet their needs. “It seems like if it was me, I would have them stock at like 2:00 in the morning because they are open 24 hours a day, you’d be back there 2:00 or 3:00 in the morning [and] wouldn’t find as many shoppers” (Participant 1). “I think it should be that they should know about how the seniors, when they go shopping and stuff, how they do, how it’s hard to get to things when they can’t” (Participant 2). These recommendations illustrate a larger disconnect for individuals who may be older or live in an area of lower socioeconomic status. Current big-box stores restock via a bar code system with just-in-time deliveries that move products from the delivery truck to the shelves of high-volume stores. These older adults perceive stocking to be a customer service failing that can be addressed if the overnight stocker brings supplies from the backroom overnight.

Discussion

This study adds perspective to existing literature on older adults and grocery shopping by illustrating adaptive (or maladaptive) responses of older adults to the barriers found in community resources, transportation, and the changing retail landscape. Prior studies suggest that quality of life is affected by obstacles in physical environments during grocery shopping (Levasseur, Desrosiers, & St-Cyr Tribble, 2008). However, the current study's participants demonstrated resilience, motivation, and a willingness to take risks to master obstacles and adapt to their changing community. The participants in this study identified the barriers to successful grocery shopping but worked to overcome those barriers either through expressing their need for assistance; by making risky physical maneuvers, such as overreaching or standing on a lower shelf; or by making less risky ones, such as taking an alternative pathway or deciding to go without a needed item.

The following research questions were addressed in this study:

1. How does living in an urban environment positively or negatively affect grocery shopping for older adults?
2. What barriers do urban-dwelling older adults identify regarding grocery shopping in small local markets versus large supermarkets?
3. What facilitates grocery shopping for urban-dwelling older adults in these same markets?
4. How do community resources influence urban older adults' ability to obtain food?
5. What community barriers do older adults face as they navigate to their preferred food source?

The study's findings addressed Research Question 1: How does living in an urban environment positively or negatively affect grocery shopping for older adults? The results reveal how community resources, such as the community senior center, a small local market, and charitable organizations provided older adults with support to complete their grocery shopping. However, over the 6-month period, when this data was collected, the reduction of these supports disrupted the participants' routines, and the older adults in this community were challenged to adapt by relying on more expensive options (cabs or multiple bus trips for small loads) or delayed options (such as rides from family or friends) or by using processed or frozen foods until they had access. Hasselkus identifies occupational deprivation as "an outcome of societal conditions in which individuals are prevented from engaging in personally gratifying activities" (2006, p. 635).

Adaptive Process

Data analysis revealed a process that older adults experience as they perform their occupation of grocery shopping. As they encounter obstacles, frustration ensues, sometimes followed by an identification of strategies to obtain their needed or desired items. Each step of this process is expanded on in the remainder of this discussion.

Encountering obstacles. Data in this theme addressed Research Question 2: What barriers do urban-dwelling older adults identify regarding grocery shopping in small local markets versus large supermarkets? The participants identified obstacles in the store that created fall risks. These included poor placement of merchandise and physical obstacles in the store aisles. This is in line with previous research. Yin et al. (2013) found that store layout, aisle configurations, poor signage, narrow passageways, and products on the floor were all barriers for older adult consumers. Older adults, in a study by Huang et al. (2012), identified narrow aisles, displays, or other shoppers' carts as obstacles while navigating grocery stores.

In addition to barriers in the physical environment, the participants' ability to retrieve heavy objects from high shelves, as well as to carry an adequate amount of groceries home via their mode of transportation, impacted their ability to adapt to changes in accessing food. While public transportation was available in this neighborhood, older adults needed to change their shopping patterns so that they did not linger at a store past the time of the last bus pick up or purchase more items than they could carry on the trip home. The big-box grocery and midsize grocery store placed items on higher shelves than the small local market. Reaching for these items posed a safety risk for the participants. A focus group in Pettigrew et al.'s (2005) research also identified that reaching for items at the supermarket was a common difficulty among older adults. Barriers, such as item placement, could be remedied if retailers focused on the unique needs of older adults (Yin, Pei, & Ranchhod, 2013). For instance, participants in a study by Yin et al. (2013), as well as Participant 3 in the current study, found that the small local market used vertical placement of like items on the shelves as a support for older adults' independence in grocery shopping.

Data in this theme also addressed Research Question 3: What community barriers do older adults face as they navigate to their preferred food source? The participants identified the poor conditions of the sidewalks and streets as a common obstacle. Similar concerns have been noted in the literature, with issues regarding the conditions of sidewalks, high steps, and/or a lack of ramps (Clarke & Gallagher, 2013; Van Cauwenberg et al., 2012). These researchers identified that these neighborhood environmental issues pose barriers to older adults as they make trips to their local market to purchase groceries.

The participants also reported difficulties traveling to their preferred food source because of transportation barriers. The participants identified fewer bus routes, greater transportation costs, and the challenge of carrying multiple bags of groceries via public transportation. The participants identified uneven sidewalks and a lack of public transportation in certain areas as barriers to food obtainment. These findings were consistent with a study by Huang et al. (2012), who found that common barriers were a lack of sidewalks, obstructed roads, highways, hills, and a lack of public transit. Identification of these obstacles was the first step of an adaptive process that older adults experienced when grocery shopping.

Becoming frustrated. The participants in this study became frustrated when faced with obstacles to their grocery shopping. These obstacles included: those inside and outside of the store at both the large supermarkets and the small grocery store, the perceived exclusion from local community decisions, and the poor quality of prepared food for sale.

The small urban community in this study had been experiencing a period of revitalization for several years. The residential area transformed from one with residents of low socioeconomic status to one becoming a desirable community with new restaurants, breweries, and luxury apartments. Many streets bordering this changing community appeared unoccupied and bleak. This adjacent area was where the study participants resided. Although revitalization efforts were a benefit to the city, the older adults in this study communicated that their needs were not considered. The older adults in this study were long-term residents who did not wish to relocate and who wanted to keep their homes as their primary assets. The participants expressed frustration with changes in their community focused on serving a younger generation. One example was evidenced by Participant 1, who commented on the abundance of breweries. This participant preferred that resources be focused on an accessible grocery store for the local community. This is congruent with findings identified in a study by Prieto (2008),

who found that during a period of change in a living situation, an individual often experiences internal emotions of neglect, abandonment, and isolation.

Obtaining quality food was a common concern of the study's participants. Participant 2 expressed frustration that older adults visited supermarkets that were selling consumers prepared foods of questionable quality. Participant 2 voiced concerns to store employees regarding the quality of food available, while participants from other studies used multiple food sources to obtain fresh products (Neill, Leipert, Garcia, & Kloseck, 2011). The participants in both studies expressed value in the availability of fresh and high quality foods.

Identifying strategies and facilitators. Data in this theme addressed Research Question 4: What facilitates grocery shopping for urban-dwelling older adults in these same markets? The participants formulated strategies as they encountered frustrations and barriers to access. The participants noted that the physical environment of the small local market acted as a facilitator. Participant 1 reported parallel findings to the Huang et al. (2012) study that the cleanliness of the smaller store made a positive impact on her grocery shopping experience, allowing easier navigation throughout the grocery store. Participant 3 found the labeling and organization of products through color and shelf height a support when shopping, which was similar to Yin et al.'s (2013) findings.

The data in this theme also addressed Research Question 5: How do community resources influence urban older adults' ability to obtain food? The participants noted that a lack of community resources posed a barrier, while the presence of community resources improved the experience of the participants by providing safe and convenient access to and in the stores. These facilitators included resources from local churches, small stores being connected to the surrounding community, and available transportation to stores. The study researchers, as well as Neill, Leipert, Garcia, and Kloseck (2011), found that local churches support community health by offering an economic meal, as well as a social experience.

The participants who described the geographical location of small markets addressed Research Question 4: What facilitates grocery shopping for urban-dwelling older adults in these same markets? The participants in the current study and in the Huang et al. (2012) study valued the proximity of certain stores, which provided them with local access to goods and services. Because of the frequency of visiting small local markets, the participants in both studies became familiar and comfortable with the staff. These relationships positively influenced their experiences, as they felt comfortable in the store (Huang et al., 2012) and enjoyed interacting with the employees.

The affordability and accessibility of the public bus service provided by the community was a transportation-related facilitator for the participants. The researchers in this study found that the participants used public bus services as an inexpensive option to access the grocery store. McCluskey, Thurtell, Clemson, and Kendig (2011) found that factors that enabled bus travel included bus stop location, the quality of services, accessibility, and inexpensive fares. These factors were also identified in the current study, as the participants expressed a desire to increase the bus scheduling in their local community to improve access to groceries; otherwise, they had to rely on friends and family for rides. Both accessibility and affordability enable individuals to obtain nutritious foods (Sylvie, Jiang, & Cohen, 2013).

The participants developed strategies for grocery shopping based on available transportation. The researchers of this study and Crabtree and Mushi-Brunt (2013) found that participants limited the amount of groceries they would buy depending on their mode of transportation and their physical ability

to carry items. Limiting the amount of groceries a consumer carried during a trip necessitated more frequent trips to the store. Conversely, older adults described strategies for stocking up on prepared foods they could rely on until they had adequate transportation for their next trip to the grocery store. This strategy was identified by Participant 1, who would always have bread in the freezer to make sandwiches when no transportation was available. Neill et al. (2011) found similar results, as participants would stock up on food so that they were prepared for situations where they could not obtain food outside of their homes.

The participants voiced the importance of being an active consumer in the grocery store. This included advising stores to consider the needs of the older adult shopper as they obtained food and expressing concerns about barriers, such as high shelf height, poor labeling, and obstructed aisles. Pettigrew et al. (2005) found that older adult shoppers believed that supermarkets should invest resources in the design and production of shopping devices according to the aging abilities of older adults. This role of active consumer stemmed from frustration, and creating adaptive strategies was the final step of this process (Schultz & Schkade, 1992).

Implications for Occupational Therapy

Occupational therapists have an integral role in their clients' care continuum from primary care to their discharge home (AOTA, 2014). Existing literature reveals gaps regarding the work of occupational therapists with older adults when grocery shopping. This study identified themes of encountering obstacles and becoming frustrated but also identified strategies and facilitators. The themes highlight the importance of addressing the client's ability to master obstacles and adapt to changes both inside the stores and in the community. To prepare clients for their transition home, the occupational therapist must anticipate future environments and how clients will navigate in those environments. Community mobility and shopping are an essential part of the occupational therapy domain listed under IADLs (AOTA, 2014). A thorough understanding of the process that older adults experience (encountering obstacles, becoming frustrated, and identifying strategies and facilitators) provides a unique lens that occupational therapists can use when working with clients to achieve mastery in these meaningful occupations.

Guided by findings from this study, occupational therapists would include in their assessment a client's ability to identify community facilitators and barriers. They then would provide interventions that support an individual's ability to advocate for themselves, address barriers, and promote successful participation in occupations related to obtaining food (AOTA, 2014). These occupational therapists, working closely with clients, are in an ideal position to advocate for older adults who are living in communities of change.

Study Limitations

This study was limited by the pace of change occurring in the urban community during the research period and by the small number of participants. The community had recently learned of a small local grocery closing, in addition to the loss of other community resources (e.g., senior center closing and reduced transportation). The timing of these changes provoked a negative focus on aspects of the participants' food obtainment experience and created a sense of anxiety and urgency during the interviews. If this study had collected data a year earlier, when fewer community changes were occurring, the participants may have been less focused on the loss of their community senior center. This may have led them to talk less about transportation and with less affection toward the small local market, or to focus more on discussions about their frustrations with larger stores. Because of the small

number of participants, and despite repeated interviews, it is not possible to make direct recommendations that could be used for other urban areas in transition. The adaptive strategies used by these participants only provide a glimpse into the challenges of older adults in the face of progress. Future research could look at how frequently older adults use maladaptive strategies or take risks when shopping in the hope of communicating those experiences to businesses and policy makers.

Conclusion

Older adults and individuals with physical and/or cognitive limitations are at an increased risk of becoming food insecure (Lee, Sinnett, Bengle, Johnson, & Brown, 2011). Occupational therapists, community health educators, and other health workers can help older adults develop the skills and resources they need to obtain food. Older adults, with and without disabilities, encounter obstacles during grocery shopping. Managing obstacles could ease the process of shopping for older adults. The participants in this study were passionate about the topic as they voiced their opinions on strategies that facilitate a safe, efficient shopping experience for this changing community. Their strategies included offering affordable transportation in the community and modifying store layouts to accommodate older shoppers. Advocating for older adults to the policy makers can help them remain independent in the community.

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