Research Article

Navigating the Urban Food Environment: Challenges and Resilience of Community-dwelling Older Adults

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ABSTRACT

Objective: Identify factors involved in food shopping among older urban adults.

Design: A qualitative study of 30 in-depth interviews and 15 "tagalong" shopping trip observations were conducted.

Setting: Brooklyn, New York.

Participants: Black, white, and Latino men and women aged 60-88 years.

Main Outcome Measure: Transcripts were coded inductively to identify emergent themes.

Results: Older adults shopped at multiple stores to obtain the quality of foods preferred at prices that fit their food budgets. Participants often traveled outside their neighborhoods to accomplish this, and expressed dissatisfaction with the foods locally available. Adaptive food shopping behaviors included walking or the use of public transit to purchase food in small batches, as well as reliance on community resources and social network members.

Conclusions and Implications: Participants identified a number of multilayered factors and challenges involved in procuring food. These factors conform to elements of ecological behavioral models described as intrapersonal, social, and environmental level influences and have resulted in adaptive behaviors for this population. These findings provide evidence that can be used to develop more effective programs, as well as promote testable interventions aimed at keeping older adults independent and capable of acquiring food that meets their age-specific needs.

Key Words: older adults, nutrition, environment, minorities, urban (*J Nutr Educ Behav*. 2013;45:322-331.)

INTRODUCTION

Previous studies indicated that environmental factors influence individual behaviors, specifically food intake patterns.[1,2] Different features of local food environments, such as variations in the costs of foods and the types of foods available within markets, as well as the distance traveled to obtain food, are of increasing interest to researchers.[3-8] In addition, the presence or absence of particular types of retail food outlets is known to be a function of the racial and economic makeup of some areas, particularly in the United States (US).[9-25]

Moreover, public health professionals and clinicians alike are increasingly weighing how environmental obstacles influence the ability of adults to meet recommended nutritional guidelines.[26-31] This is a particular concern for older adults, many of whom are managing diet-related chronic diseases such as hypertension, diabetes, and heart disease.[32,33] Furthermore, more than a third of older adults in the US had a disability in 2010.[34] Research on the elderly in New York City public housing documents both the health challenges and vulnerability of this population.[35] The authors report that approximately two thirds of the older adults in their study indicated a health status of fair or poor; most suffer from 1 or more chronic diseases; roughly a third had a diabetes diagnosis or experienced limitations in activities of daily living; and 1 in 5 reported food insecurity. In addition to physical limitations, many older adults rely on a fixed income, which is also likely to influence their food choices, behaviors, and consumption patterns.[36] For instance, an analysis of the baseline data from the Women's Health and Aging Study for 1,002 disabled women aged ≥ 65 years residing in Baltimore, Maryland, indicates that 49.5% of minority women and 13.4% of white women reported financial difficulty obtaining food.[37]

To date, most US studies that describe the relationship between local food environments and health behaviors or health status focus on children or middle-aged adults, whereas research related to older adults in this arena remains sparse.[38-40] Recognizing

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the lack of understanding surrounding factors that influence older adults and food access, Wolfe et al[38] suggested a conceptual analysis of food insecurity among older adults based on in-depth interviews with older adults from upstate New York. The researchers defined a model that includes the concept of community characteristics—such as grocery store availability and prices, transportation services, and the availability and features of food programs—as factors that relate to older adults' ability to obtain and prepare food. In addition, research from Canada suggests that the elderly have unique needs and tend to confine their shopping to their local environment, which leaves them at a disadvantage for obtaining competitively priced food items available elsewhere.[41-43] More recent research includes a study linking food insecurity among older adults to the walkability of their immediate neighborhood.[44]

To better understand the challenges older adults face, qualitative interviews with older New York City residents were conducted to explore their experiences navigating local urban neighborhoods to obtain food. Participants shared their perspectives on a number of complex challenges that they face when shopping for food and/or using food-related community resources, including income, transportation, functional mobility, and social support. Study participants also shared their attitudes and perspectives about the sources of food that are available in their neighborhoods, such as food stores, restaurants, community centers, and food banks or pantries.

METHODS

Participants and Recruitment

Participants (n = 30) were selected from a larger prospective cohort of 1,453 older adults enrolled in the Cardiovascular Health of Seniors and the Built Environment study (CHBE), in which men and women aged 59-99 years were enrolled between January, 2009 and June, 2011. Participants for the CHBE study were recruited from New York City community social service centers located in all areas of Brooklyn. Participants were eligible for the study if their reported race/ethnicity was black, white, or Latino; they spoke English or Spanish; and they were judged able to understand the purpose of the study and the respondent's burden (n = 1,453). The population enrolled reflects the race/ethnicity of the base population of older adults from the neighborhoods sampled within 10%.

A list of eligible cohort members was used for block sampling by geographic area across Brooklyn, New York. Although it was not feasible to sample older adults from every Brooklyn neighborhood in this qualitative study, attention was paid to recruiting participants from a number of distinct neighborhoods, both to capture the diversity of experiences across Brooklyn and to sample enough participants to likely achieve saturation in the data, as defined by the point at which ongoing data collection does not continue to yield new information within the conceptual categories of interest.[45-47] Participants were recruited purposefully for their heterogeneity in terms of the neighborhood in which they resided at that time (ie, racial/ethnic makeup and wealth of the neighborhood). Thus, the 30 participants completing the first qualitative interview represent 17 Brooklyn neighborhoods, or 30% of the total neighborhoods in the borough.

Eligibility criteria for inclusion in this qualitative component required that each individual be fluent in English, have completed the baseline measurements for the parent study, have reported in the baseline interview that they were the primary food shopper in their household, and have consented to be contacted for the qualitative interview. Informed consent was obtained from eligible participants at the first scheduled interview. Once a sample of 30 individuals agreed to participate, no additional cohort members were contacted. The Mount Sinai School of Medicine Institutional Review Board reviewed and approved the qualitative research component, which included both the baseline and tagalong interviews.

Instruments and Procedures

In-depth qualitative interviews. Face-to-face, audio-taped interviews were conducted at participants' homes between September, 2010 and April, 2011. A semi-structured guide directed the discussion during each interview. The interview guide contained 4 key sections with a series of questions and probes exploring participants' shopping, cooking, and eating habits (Table 1). Participants also listed the members of their social network (including individuals and institutions) and the types of support provided by each network member, including informational, emotional, instrumental, and appraisal support.[48-50] Interviews lasted 1-2 hours. Socio-demographic information was collected as part of the baseline exam from the CHBE study (parent study), as was the food security index (calculated from standardized questions from the US Department of Agriculture).[51] Participants' real names were not reported anywhere in the data; instead, pseudonyms were substituted for all of the names (selected from a list of common male and female names).

Qualitative observations. Information about participants' home environments and immediate neighborhoods, as well as their personal affect, demeanor, and physical resilience, were documented in the form of observational field notes at the time of the first interview. These observations were dictated onto audio-tape immediately post-interview.

Shopping trip observations. Approximately 4-6 weeks after the first interview, participants were asked to allow the researcher to shadow them during a regularly scheduled food shopping trip at the establishment that they had previously identified as their "primary" food store. Half of the original cohort (n = 15) agreed to participate in this component of the study (the "tagalong" shopping trip). Reasons for refusal included illness, time constraints, and competing priorities, as well as changes in shopping patterns (some individuals were no longer the primary shoppers in their household because of declining health or illness). The purpose of this component of the research was to: (1) identify modes of transportation to the food or shopping location(s); (2) observe store characteristics; (3) describe purchasing patterns; and (4) document the total bill and source of