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PERCEPTIONS OF THE COMMUNITY FOOD ENVIRONMENT AND RELATED INFLUENCES ON FOOD CHOICE AMONG MIDLIFE WOMEN RESIDING IN RURAL AND URBAN AREAS: A QUALITATIVE ANALYSIS[1]

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Abstract

Introduction—Qualitative research on food choice has rarely focused on individuals' perceptions of the community food environment. Women remain gatekeepers of the family diet and food purchasing. Therefore we assessed midlife, Southern women's perceptions of the food environment. Related influences on food choices at work and at home were also examined.

Methods—We recruited 28 low- and moderate-income, midlife (37−67 years) women from rural and urban areas of southeastern North Carolina, using typical case and snowball sampling. They responded to questions about multilevel influences on food choice in semi-structured, in-depth interviews.

Results—Women perceived differences between urban and rural food environments, with rural areas having fewer supermarkets and fast food restaurants compared to urban areas, which had fewer produce stands. Workplace food choices were affected by the social environment (co-workers), personal health concerns, and the surrounding food environment. Food chosen at home was primarily influenced by family members, health concerns, and convenient food sources.

Discussion—While future studies should explore findings in more representative populations, potential intervention strategies can be inferred, including emphasizing healthful aspects of the food environment. Intervention and advocacy efforts are needed to improve aspects of the food environment that make healthy choices difficult.

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Introduction

The current food environment in the United States, with its widespread availability of energy dense, inexpensive foods, has been noted as a significant contributor to the obesity epidemic (Young and Nestle 2002; Drewnowski and Darmon 2005). Corroborative quantitative studies of environmental influences on diet document increasing portion sizes (Nielsen and Popkin 2003) and associations between proximity to supermarkets and diet quality, fruit and vegetable consumption, and overweight (Morland, Wing et al. 2002; Laraia, Siega-Riz et al. 2004; Rose and Richards 2004; Morland, Diez Roux et al. 2006).

An understanding of perceptions of the community food environment, and related influences on food choice are needed, particularly among low-income, midlife women. Low-income, minority women are at higher risk of chronic diseases that are partially caused by overweight (Liao, Tucker et al. 2004). Such women may be more likely to encounter environmental barriers to healthy food choices, often living in neighborhoods with fewer supermarkets (Morland, Wing et al. 2002) and more fast food restaurants (Block, Scribner et al. 2004). Finally, women are gatekeepers, doing much of the planning, shopping for, and preparing of family meals, thus having the potential to influence positively family members' diets (Wild, Taylor et al. 1994). Conversely, as gatekeepers women may have greater exposure and susceptibility to the obesigenic food environment compared to other family members. Thus, they may have greater likelihood of becoming overweight or obese. Greatly needed are intervention strategies to enable women to overcome environmental barriers to healthy food choices.

To guide research regarding environmental influences on food choices, Glanz et al. (Glanz, Sallis et al. 2005) proposed a conceptual model of policy, environmental, and individual-level factors that affect food choices based on an ecological model of health. The Glanz et al. model includes the community and the organizational (e.g., home, work) food environments. The model also addresses individual-level indicators, such as the perceived nutrition environment and additional psychosocial factors, which the authors note are potential mechanisms through which the food environment imposes risks and benefits (mediators), or characteristics that may differentially influence food choice (moderators). It is important to learn how the community food environment is perceived and how these perceptions influence food choice. Knowledge of these perceptions could help in development of effective intervention and policy approaches to support healthy food choices, as well as guide future quantitative analyses of environmental effects on food choice. For the purposes of this paper, "perceived community food environment" was defined as participants' subjective accounts of accessibility and quality of local food sources, such as restaurants and grocery stores.

While previous research has determined that taste, cost, convenience and health are key influences on food choice (Glanz, Basil et al. 1998), it is likely that the relative importance of these factors depends on the population studied and the environment in which choices are made. For instance, health might be a primary influence for an older woman concerned about her high blood pressure, while cost may be most influential for a low-income mother shopping for food to feed her children. The current food environment offers a wide variety of convenient, palatable, energy-dense, and low-cost food. However, though inundated with unhealthy options, there are individuals who make healthier choices. Thus, for future health promotion efforts, it is important to learn of those factors that enable individuals to overcome environmental forces favoring less healthful food choices.

Qualitative inquiry is a useful method to examine individuals' perceptions of the community food environment, as well as other influences on individuals' food choices within the food environment. At least seven qualitative studies have explored how adult men and women

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choose the foods they purchase, prepare, and consume (Furst, Connors et al. 1996; Bisogni, Connors et al. 2002; Dibsdall, Lambert et al. 2002; Krummel, Humphries et al. 2002; Blake and Bisogni 2003; James 2004; Yeh, Ickes et al. 2008). These studies were based in West Virginia, upstate New York, Florida, North Carolina, Connecticut, and the United Kingdom. Four of these studies noted that the environment influenced food choice, (Furst, Connors et al. 1996; Bisogni, Connors et al. 2002; Dibsdall, Lambert et al. 2002; Yeh, Ickes et al. 2008) but none focused directly on the perceived community food environment. Therefore, in this study, we examined: (1) low- to moderate-income, midlife women's perceptions of food sources in the community food environment; and (2) related influences on food choices in the home and work environments.

Methods

Setting and Participant Recruitment

This study was conducted in a four-county region, comprised of one small Southern urban center with an estimated population of 93,292 (United States Census Bureau), surrounded by coastal and expansive rural agricultural areas. Data were collected using semi-structured interviews, designed for two purposes: (1) to understand women's perceptions of the food environment and to (2) pilot-test two new intervention tools to be used in a clinic-based health promotion program for underserved, midlife women (the WISEWOMAN Project) (Keyserling, Samuel Hodge et al. 2008). For the purposes of this study, midlife was defined as 40 − 64 years. Community centers were chosen for identifying study participants because they served lower-income populations in southeastern North Carolina. Key informants at four community centers (two community health centers, a senior center, and a community recreation center) were identified by calling the community center and asking to talk to the person in the organization able to give permission to recruit study participants from among center patrons. Key informants then worked with the first author to identify potential study participants. Typical case (women similar to WISEWOMAN participants in age, race, and socioeconomic status) and snowball sampling were used to recruit black and white midlife women living in southeastern North Carolina. Key informants contacted potential interview respondents and helped to arrange the interviews. Twenty-eight women met eligibility criteria and agreed to participate. Eligibility and participation rates were not tracked. Each participant signed informed consent and was paid $25 after completing the interview. This study was approved by the University of North Carolina at Chapel Hill School of Public Health Institutional Review Board.

Conducting the Interviews

Two interview guides were used and included similar questions to assess facilitators and barriers to healthy eating and physical activity on multiple levels of the social ecological framework (Stokols 1992), with emphasis on environmental and community-level factors. (Table 1) Two interview guides were used because one purpose of the interviews was to elicit feedback on two intervention tools to be used in the WISEWOMAN project, with development of the tools described elsewhere (Jilcott, Laraia et al. 2007). Each interview guide was used with different groups of women. Because of the timing of the WISEWOMAN intervention, we prioritized development of the first intervention tool (Community Resource Guide); thus, the interview guide to elicit feedback on the Community Resource Guide was administered to the first 12 interview participants. The second intervention tool (Neighborhood Assessment) was not needed until the maintenance phase of the intervention, and it was thus administered to the remainder of participants (n = 16). Data collection ceased when the tools were finalized and data saturation was achieved (no new information obtained from participants). Face-to-face interviews lasted 40–60 minutes, were taped and later transcribed verbatim. Interview locations were chosen by the participants and included the community centers from which the participants were recruited, participants' homes and public venues (e.g., restaurant or book

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store). The interviewer took field notes, which were reviewed before analysis began, and informed the development of codes and operational definitions.

Data Analysis

Two coders (one was also the interviewer) read four representative, diverse interview transcripts to develop codes based on repeated themes. New themes were added as coding progressed. The final code book included 26 nutrition-related themes and operational definitions. Physical activity data were not analyzed for this paper. Remaining transcripts were then read and coded independently by the two coders, who then met to discuss discrepancies in coding and reach consensus on coding decisions. Both coders summarized each transcript, detailing the most salient influences on food choice. Similar to the causal networks approach described by Miles and Huberman (Miles 1994), a schematic of important influences on diet was drawn for each participant. Transcripts were imported into QSR N'vivo (QSR International, Melbourne, Australia) for data management and to assign codes to appropriate segments of text. An audit trail of important analytical steps and decisions was kept.

Because the interview guide included specific questions about community barriers and resources related to a healthy diet, data regarding women's perceptions of various community food sources were analyzed deductively. An inductive approach was used to examine related influences on women's food choices at work and at home. Only those influences or themes related to the food environment, mentioned by at least three women and described with sufficient consistency and detail to allow exploration of the various dimensions of the theme were included in the results.

Results

Participants (n = 28) ranged in age from 37 to 67 years. (Although midlife was defined as 40 – 64 years, two participants were slightly outside this age range at 37 and 67 years. These latter two women were included in the analytic sample because they were similar to potential WISEWOMAN participants in life stage and racial background.) Nineteen participants were black, and nine were white. Fifteen lived in the small urban center (downtown and surrounding suburban areas) and thirteen lived in rural areas. Eight of the rural residents reported working in the urban area. Fifteen women worked, three volunteered regularly, and ten were not currently employed. Participants were housekeepers, beauticians and worked in administrative roles at a senior center, community center, and local university. Women's household compositions varied, reflecting the complexities of this stage of life. Twelve lived alone, seven lived with spouses or partners, six had children or grandchildren living in their homes, and three lived with a spouse and school-aged children. Four women reported caring for aging parents.

We first examined women's perceptions of food sources in the community food environment, and then identified ways these perceptions combined with related influences to affect food choices at work and home.

Perceptions of Food Sources in the Community Food Environment

Food sources described by the women included supermarkets, discount superstores, produce markets, and two types of restaurants. Women's perceptions of each food source affected their use of the food source and subsequent food choices. Participants reported differences in the types and availability of food sources, depending on whether the community was urban (downtown and surrounding urban areas) or rural.

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Supermarkets and Discount Superstores—All women reported having access to a supermarket or discount superstore. Women from both downtown and rural areas reported living further from supermarkets. One downtown resident without a car said that living far from a supermarket constrained her food options because the only food store in her area was a small convenience store, which did not have the selection available at a large supermarket. Meanwhile, a rural participant noted:

> "It's deserted...There are no grocery stores within maybe 10 miles to the right or the left. I'd have to go way over 10 miles to get fresh fruits and vegetables."

A Discount Superstore was accessible to both urban and rural participants. In addition to the products offered at a normal discount store, this Discount Superstore also contained a full-size grocery store. However, some described the shopping experience at this Discount Superstore as unpleasant and stressful:

> "I don't go to [Discount Superstore] or places like that...I might would go to [Discount Superstore], but just to go in there and buy groceries, no...It's just, I don't know, maybe the parking and the traffic."

> "[Discount Superstore], if you want the noise, you've got the time to go there and walk a long time, you know it's better prices but it's more of a hassle, noisier."

Yet to most participants, the competitive pricing and "one stop shopping" offered were extremely appealing:

> "[Discount Superstore] ...It's got everything in one spot and I love to go there...I like it because there's bargains and it's reasonable, it's not so high."

While women reported having access to a supermarket or discount superstore, several identified barriers of inconvenience (e.g., distant location, stressful atmosphere), which may have influenced the frequency of shopping trips to these food sources.

Produce Markets—When asked about produce markets, most urban and rural participants stated that produce markets and stands were appealing due to the lower cost and fresh taste of produce that was in-season. Women also appreciated the opportunity to support local farmers. While generally perceived as healthful, pleasant food sources, many women did not visit produce markets or stands often, reporting that fruits and vegetables could be more conveniently purchased at a supermarket. Urban women reported few produce markets in their communities relative to ruralresidents' reports of having plentiful produce stands. One rural woman noted the advantage of close proximity to a local produce stand:

> "...You know there's a fruit stand not far from where I live and I always buy fresh vegetables."

Non-Fast Food Restaurants—When discussing the community food environment, women often recalled experiences eating at different types of restaurants. Participants perceived that "family restaurants", defined as large buffet- or cafeteria-style restaurants offering a variety of food, were healthier than fast food restaurants. One respondent noted:

> "...you come to some of these family restaurants, like [Restaurant], they have healthy stuff like the salad bar, steamed vegetables, but they also have the fried foods, so people have a choice, but these fast foods really don't."

Characterized by greasy, energy-dense menu options, participants reported that soul food restaurants were located in the urban, downtown area. Women said that these restaurants made healthy eating difficult due to limited healthy menu items:

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> “...usually the restaurants in this area, like certain days they might have a leafy vegetable but...then if they don't have enough green vegetables...you don't have a choice.”

Fast Food Restaurants—Compared to rural participants, those who lived and/or worked in urban areas frequently noted the abundance of fast food restaurants. One urban participant reported:

> “It seems like everywhere you go there's a fast food, so you cannot duck them. I don't care what streets you go down. You are going to come to a fast food, there are just so many fast food restaurants.”

Not only was there a perceived abundance of fast food restaurants, but they were also thought to be clustered:

> “There are a bunch of fast food places...within almost walking range.”

Finally, one black participant observed that fast food restaurants were clustered within close proximity to the black community:

> “Well there seems to be really a lot of fast food places in the black community. ... it's almost as if you're set up.”

Participants noted that fast food had an irresistible draw, reflected in phrases women used to describe fast food, such as “sometimes it just calls you” and “jumping out and grabbing onto you like a magnet.” This irresistible draw reportedly began with the smell of fast food:

> “I think sometimes that grease smell becomes hypnotic and you're drawn to it whether you want it or not.”

The ubiquitous aroma and general atmosphere influenced the amount that women ate, possibly leading to women consuming more than they had originally planned:

> “It's real hard to go by. I used to have a cookie. You'd go to the mall, aroma is everywhere. It's just you know, let's just have a [Fast Food Restaurant] sandwich and the next thing you know we are eating the wafers that come with it and then they'll have homemade ice cream...”

Overall, participants mentioned positive attributes of fast food restaurants, such as palatability, convenience, and availability of healthy options, but some felt that fast food restaurants had questionable sanitation. Although women knew that most food served at fast food restaurants was not healthy, the convenience and taste of prepared foods, combined with women's desires to cater to family taste preferences, as well as their own, led participants to purchase fast food.

As the primary household food shoppers, women were exposed to the food environment as they traveled to and from work or while running errands. Factors such as social norms at work, family taste preferences, and personal health concerns affected the foods women purchased in the community food environment. These influences are discussed below as they related to foods brought into the home and work environments.

Influences on Food Choices in the Work Environment—Most women's workplaces were located in urban areas. These women commonly reported eating unhealthy foods from food sources in the community surrounding the workplace. For example, one participant's choices were constrained by the limited restaurant options around her workplace, located in the downtown area:

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> "...But as far as this area, I don't really think...that there is any place that's any good that you can eat...a lot of places here, they fix a whole lot of starches and not enough green vegetables."

Participants also mentioned the influential social environment at work. One working woman ate at a soul food restaurant near her workplace because bringing food from home was not the norm for employees. Another recalled that her coworkers sometimes ordered fast food breakfast for the entire office.

Participants noted that food brought from home to work was usually healthy. Those who brought food from home to work did so because they either could not leave work to purchase food from the surrounding community environment or because of a significant health concern that motivated healthier practices. One participant explained why she now brought healthy food from home to work and less frequently ate lunch from local fast food restaurants:

> "Because I can't eat [fast foods] any more...It's a matter of my health now...I don't buy snack things in the supermarket any more...I buy fruits, yogurt...because...I was real, real sick."

Influences on Food Choices during the Commute—The commute between the workplace and home provided further exposure to food sources, especially for women who lived in rural areas and worked in the urban area. Participants noted the convenience of using the commute to pick up fast food, prompted by the desire to please family members. Fast food was even mentioned as a motivating factor:

> "Again, it's a time factor...for my 15-year-old who has a really hard time getting up and out of the house in the mornings, which causes me to be late every single day, I've even made deals with her, ... 'if we can leave the house by 7:30 I will take you by [Fast Food Restaurant] and get you something...'"

It was also a convenience at the end of a long day:

> "...and even though I should still be concerned about my husband and I, because we are older and the risk factors are up...it's just easier...on my way home to drive by [Fast Food Restaurant], or [Fast Food Restaurant], or [Fast Food Restaurant], or call the [Take Out Restaurant]."

However, women also stopped to shop at a supermarket or produce market on the commute home from work. This practice was often due to women's health concerns or due to a market's convenient location along the route:

> "I try to go [to a produce market] once a week. Sometimes I'll go a couple of times if I'm running out of something...there are 2 on my way home...really nice produce/ fruit stands."

Women incorporated food purchased while commuting between work and home into the home food environment. Thus, factors that influenced the relationship between the perceived community food environment and foods purchased on the commute were similar to influences in the home environment. These are described in detail below.

Influences on Food Choices in the Home Environment—While women described having little control over the community and work food environments, they reported having more control over food available in the home environment. Family was the most prominent influence on home food availability. For example, women caring for children recognized the influence that the home environment and broader community had on children's food choices, and thus were motivated to create healthy home food environments:

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> "I don't buy junk food because I don't like my son to have it, and if it's there you can eat it."

> "Despite me eating unhealthy, I have tried to keep my children healthy, so when we go on trips, I bring apples or bananas or fruit..."

Conversely, participants whose children were no longer living at home noted that their motivation to prepare healthful meals had decreased:

> "I think when you were raising your children, nutrition and planning meals was a very big part of your life. If you live alone, it is not as big a part of your life."

Part of this motivation included the desire to be a healthy role model:

> "Now that my children are grown...being nutritious in my cooking and my eating habits is harder because the desire...to set that good example for my children is gone..."

Women commonly noted the influence of their children's or spouse's taste preferences when explaining what food they chose to purchase. Specifically, because children often accompanied women when they were running errands, children's desires for unhealthy snack foods strongly affected food decisions made in the community food environment. One mother of two young children related:

> "Yes, I mean if I stop to buy the children ice cream, you know I'm going to get me one too."

A grandmother avoided dealing with this obstacle, explaining:

> "...Most of the time when I go grocery shopping, I don't let anybody go with me. It's much easier to pick up more healthy foods than if they're [children] not there, bringing things to the cart and saying, 'Please, please let us have this, let us have that.'"

Another participant described how she previously had included meat in every meal, influenced by her husband's taste preferences. After her husband died, this changed:

> "...well I live alone now and I don't have to cook for somebody else and try to cook to please them. My husband always liked to have meat and I don't necessarily have to cook meats now, so I can eat an all vegetable supper ..."

Women had a difficult time reconciling their desires to provide healthy food for family members, which conflicted with desires to please family members. Often women gave in to family member's preferences (and their own preferences) for unhealthy fast food or convenient snack foods. One participant succinctly concluded: "You will tend to go with the convenience and advertised price of fast food." Yet some women withstood pressure to purchase unhealthy foods, primarily due to concerns for their own health, also a key overall influence on food choices. Women with health concerns were more motivated to choose healthy food options compared to women without health concerns.

> "I just made up my mind that they [fast foods] were not good for my high blood pressure...So I was just committed that I needed to make a change in diet and fast food had to go."

Ultimately, the home and work food environments were affected by a combination of influences, which included perceptions of community food sources, food access surrounding the workplace and along the commute between work and home, perceptions of social norms regarding food eaten at work, the influence of family members, and the perceived impact of diet on health.

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Discussion

The current study was unique in that we collected data from low- and moderate-income, midlife women from southeastern North Carolina to understand their perceptions of food sources in the community food environment and influences on food choices at home and work, two environments where women spend much of their time. Our results shed light on the different food sources available in urban and rural communities. Women from both rural and downtown, urban areas reported that large chain supermarkets were not located in their communities. Yet rural women enjoyed closer proximity to produce markets and stands. While less prevalent in rural areas, many types of restaurants (e.g., fast food, soul food) were available in urban areas. Results of our study are in agreement with recent quantitative analyses which have demonstrated that the distance to the nearest supermarket decreased with increasing population density (Sharkey and Horel 2008), and fewer supermarkets were available in rural than in urban tracts (Liese, Weis et al. 2007). Conversely, Hosler, et al. (Hosler, Varadarajulu et al. 2006) found that rural individuals had greater access to stores that sold high fiber bread and low-fat milk compared to urban participants. Thus, additional work is needed to clarify urban and rural differences in access to healthy foods and subsequent effects on dietary behaviors.

The notion that fast food had an irresistible draw was noteworthy. In general, interview participants emphasized the influence of individual-level factors, such as personal health concerns or convenience, on food choice. However, women seemed to acknowledge fast food as a passive environmental influence, able to override individual-level influences, aptly reflected in the phrase “sometimes it just calls you”. Also noteworthy is that fast food restaurants were disproportionately located in African American communities. Previous quantitative studies have indicated higher density of fast food restaurants in low versus high income communities (Morland, Wing et al. 2002; Powell, Chaloupka et al. 2007; Simon, Kwan et al. 2008) and in minority versus white communities (Block, Scribner et al. 2004). These potential disparities should be explored and addressed in future larger, and more representative study samples.

Children had different effects on women's choices depending on whether they were running errands, traveling, or at home. When out in the community with their children, women sometimes succumbed to children's insistence that they purchase unhealthy snacks and fast food. However, most women expressed a desire to provide children with healthy foods, especially evident in the home, confirming the results of others (Yeh, Ickes et al. 2008).

This study also highlighted the importance of the work food environment, wherein women's food choices were strongly affected by the social and physical environments rather than by children. In addition, the commute between home and work was used for purchasing food, and was especially important for women who lived in rural areas and worked in urban settings. Women's family members and their own perceptions about the influence of diet on personal health were influential in determining the food purchased on the commute between home and work. Future studies of the effect of the community food environment on food choice should include measures which characterize the food environment of women's daily commute.

Results of this analysis confirmed previous research related to food choice (Falk, Bisogni et al. 1996; Glanz, Basil et al. 1998), demonstrating that taste, cost, convenience, and health are factors individuals take into account when making food choices. However, the relative impact of these factors on food choices was specific to women's personal situations. For instance, in this study, health was more influential for women who had developed chronic diseases, while convenience was a primary influence for working women who were active in their children's lives or in community life

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Our results corroborate findings of other qualitative studies of food choice. In our study and others' (Furst, Connors et al. 1996; Krummel, Humphries et al. 2002; Blake and Bisogni 2003; James 2004; Yeh, Ickes et al. 2008), individual choices were affected by the general perception that healthier foods were more expensive, took more time to prepare, and were not as palatable as unhealthy foods. Participants in the current study frequently mentioned the influence of family members on their food choices, also a finding in other investigations (Krummel, Humphries et al. 2002; Blake and Bisogni 2003; James 2004). Finally, the desire to avoid or manage disease motivated healthier food choices in participants in our study and others (Furst, Connors et al. 1996; Bisogni, Connors et al. 2002; Dibsdall, Lambert et al. 2002; Krummel, Humphries et al. 2002; Blake and Bisogni 2003).

This study had several limitations which should be considered when interpreting results. One was the study's health promotion focus, which was reflected in the recruitment of participants from community centers who may not have provided a representative sample of the target population, and in the interview guides, which were developed for the primary purpose of pilot-testing intervention tools. Because participants were informed of the context of the study, they may have been more health-conscious than usual or may have provided socially desirable responses. Two interview guides were used; however, the questions asked on the two guides addressed similar constructs related to the food environment. This study analyzed women's perceptions of influences on their dietary choices. Because women may not be aware of broader environmental influences on their diets, objective measures of the food environment in future studies are warranted. However, examination of women's perceptions was also a strength of this study, because compared to objective measures of women's environments, women's perceptions of their environments may be more closely linked to food choices. The small, non-random sample and lack of tracking of eligibility and participation rates were limitations affecting generalizability of the findings. Thus, any intervention strategies that can be inferred from our results should be explored with larger, representative samples of similar women. The variability of women with regard to age, life stage, race/ethnicity, and urban/rural residence, combined with the small sample size also limited our ability to make comparisons across racial and ethnic or urban and rural lines because we could not attain saturation in these small subgroups.

Our findings regarding differences in food sources in urban and rural communities suggest that positive aspects of urban and rural communities can be emphasized in interventions. For example, the WISEWOMAN Project used a Community Resource Guide listing local nutrition and physical activity resources to increase participants' awareness and use of resources (Jilcott, Laraia et al. 2007) Interventions among working women must recognize and address salient community facilitators and barriers to healthy choices. This might include providing information on healthy restaurant choices and encouraging women to use the work commute to purchase healthy foods. Health-promoting environments facilitate individuals in initiating and maintaining healthful dietary behavior changes. Participant advocacy efforts could lead to improvements in the less healthful aspects of community food environments, such as advocating for supermarkets or produce stands in downtown areas, or encouraging soul food restaurants to provide healthier menu options.

While the life experiences of the women in the current study varied greatly, many common themes emerged, related to women's stage in life. Midlife is a time when women may be undergoing significant life changes, such as having children leave home or themselves or their loved ones being diagnosed with a chronic disease. These transitions may provide teachable moments, when women are ready to make healthy changes (McBride, Emmons et al. 2003). The data presented here can contribute to continued development of innovative, multilevel intervention strategies to promote the health and well-being of similar women.

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Table 1

Interview Guides

Introduction to Interview Guide 1[1]	**Information elicited using Interview Guide 1**
•Description of the WISEWOMAN Project	•Multilevel facilitators and barriers to a healthy diet and physical activity[2]
•Introduction to questions regarding barriers and facilitators to a healthy lifestyle and questions regarding the intervention tools	
	•Places or programs in the community that make it harder or easier to eat healthy or be active[2]
	•Reactions to the intervention tools
	•Facilitators and barriers to using local nutrition and physical activity community resources[2]
	•Willingness to advocate for beneficial neighborhood changes (e.g., calling to get a sidewalk repaired)
	•Advice for a hypothetical woman facing specific environmental barriers to a healthy lifestyle[2]
Introduction to Interview Guide 2[1]	Information elicited using Interview Guide 2
•Description of the WISEWOMAN Project	•Multilevel facilitators and barriers to a healthy diet and physical activity[2]
•Example of how neighborhood and community-level factors could make a healthy lifestyle harder or easier	
	•Environmental barriers to a healthy lifestyle and barriers to using local community resources[2]
•Introduction to questions regarding barriers and facilitators to a healthy lifestyle and questions regarding the intervention tools	•Reactions to the intervention tools
	•Advice for motivating a friend to use a helpful community resource and to overcome an environmental or a personal barrier to a healthy lifestyle
•Investigator definition of a healthy diet	
•Investigator definition of a neighborhood	

[1]Interview guide 1 was used with 12 participants and interview guide 2 was used with 16 different participants.

[2]Participant responses to these questions were the focus of analysis for the current study.