

Chapter 1

Introduction

Researchers have documented increasing rates of obesity in the United States and worldwide (Robert Wood Johnson Foundation, 2009; World Health Organization, 2003). Obesity is correlated with cardiovascular disease, diabetes, hypertension and knee damage (Sowers, 2003; Hochberg et al., 1995). Obesity rates in Detroit, Michigan exceed both the national average and the rates of surrounding areas. A recent study estimated Detroit's adult obesity rate to be 38.1% and Michigan's rate to be 30.1% (Anderson, Lyon-Callo, Monje, Boivin, & Imes, 2009). Some epidemiologists have argued that the increases in mortality and morbidity due to obesity will reverse longstanding gains in human life-expectancy (Olshansky et al., 2005; Wyatt, Winters, & Dubbert, 2006). There is, however, a growing body of work that criticizes the heightened concern over obesity as a "moral panic" with journalists, government health agencies, weight-loss industries and other vested parties exaggerating the health risks of increased body weight (Campos, Saguy, Ernsberger, Oliver, & Gaesser, 2006; Saguy & Riley; 2005).

The purpose of this dissertation is not to debate whether risks associated with obesity are biological facts or social constructions. Rather, I intend to examine the social processes involved with two of the health behaviors most frequently associated with obesity: eating and exercising. Links between obesity, diet and physical activity are well established (Centers for Disease Control, 2008). In this dissertation, I explore barriers that residents of two low-income Detroit neighborhoods face and the strategies they

devise for obtaining food and physical activity. In doing so, I address a number of broader sociological concerns: the relationship between agency and structure, the role of resources regarding disparities in health, and the revitalization of interest in the healthfulness of neighborhoods.

Researchers have identified numerous structural factors, such as segregation and poverty, that impact health in neighborhoods (Schulz, Williams, Israel, & Lempert, 2002; Ross and Mirowski, 2001). Community contexts have become central to sociological examinations of health disparities. Although findings that neighborhoods are associated with health are not new, the explanations continue to be debated among public health researchers. Some have argued that these links result from the tendency of individuals with similar characteristics to aggregate in a common geographic space, whether because of culture or socioeconomic status. Others have argued that the ecological attributes of communities affect health above and beyond the individual characteristics of their residents. However, this dichotomy might oversimplify the relationships at hand, because health decisions result from *both* individual means and preferences *as well as* the availability of resources and networks in a neighborhood (Bernard et al., 2007).

Although they account for important contextual influences on health decisions, structural approaches tend to neglect the role of agency. To gain a more holistic understanding of how health behaviors transpire in disadvantaged neighborhoods, the agency of residents must be brought back into the focus of research. However, overemphasizing the importance of agency risks ignoring important contextual factors and presenting an overly-individualistic perspective. To navigate a middle course, I treat food and physical activity acquisition as resulting in large part from the interaction

between the agency of residents and the social structures of neighborhoods.

Specifically, I will ask how residents think about options and make decisions concerning sources of nutritious food and physical activity. In what ways are their perceptions, decisions, actions, and routines shaped in response to barriers and resources in their neighborhoods? In light of these circumstances, what sorts of creative and innovative responses do participants devise to obtain food and physical activity? Additionally, I explore how scholars view the sources of deficient diet and exercise habits compared to how physical activity and nutrition are lived by residents.

Agency is not as a constant or an independent force, but rather a variable that depends partially on structural conditions and neighborhood contexts¹. As Giddens (1979) points out in his theory of “duality”, structure and agency are not opposing forces, but rather mutually constituted. I treat agency as partially constituted by its location vis-à-vis social structures and neighborhood contexts, but also as a powerful force in responding to and changing structures pertaining to food acquisition. In other words, I seek to understand the role and potential of agency in the context of limited neighborhood, social and economic resources. In doing so, I provide an approach that avoids the determinism of overly-structural explanations, as well as the victim-blaming and romanticism engendered by an over-emphasis on the agency and personal responsibility of individuals with limited access to nutritious foods and leisure-time physical activities.

Many researchers and physicians have argued that at-risk individuals need to take personal responsibility for changing their eating and exercise habits (Dailey, Schwartz, Binienda, Moorman, & Neale, 2006; Rippe, 1996). To promote and facilitate these

changes, researchers have designed an array of interventions to alter the knowledge, perceptions, motivations, and self-discipline of individuals. In Detroit, however, the difficulties obtaining healthy foods and engaging in physical activities are profound. It is the nation's poorest city of greater than 250,000 residents (American Community Survey, 2007). More than half of Detroit residents (approximately 550,000) live in “out-of-balance” food environments—areas where they must travel at least twice as far to reach the closest mainstream grocer as they do to reach a “fringe food” location, such as a fast food restaurant or a convenience store (Gallagher, 2007). Lack of adequate parks and recreation spaces and infrastructural problems, such as poorly maintained sidewalks and street lights, contribute to environments where outdoor physical activities are difficult to pursue. Concerns about crime further compound the difficulties of both food acquisition and engaging in physical activity.

Although these contextual influences are important to consider, structural explanations of health in Detroit neighborhoods cannot account for the complexity of emotions and responses possible for Detroiters in multifarious circumstances. Little is known about what residents actually *do* when faced with structural constraints. The responses of individuals to these challenges matter. As Schulz and Lempert (2004) argue in their ethnography of the ways in which Detroit neighborhoods affect health, “Understanding the nature of inequalities and the strategies residents devise to address them are likely to be central to our understanding of, and societal efforts to eliminate, racial disparities in health.”

Methods

To investigate the barriers and strategies regarding the acquisition of food and physical activity, I use 47 semistructured, in-depth interviews from residents in two Detroit communities, along with observations, maps and photographs. Participants in this study came from two neighborhoods: one is on the near-northwest side of the city, and the other is located on the lower-east side. For the sake of anonymity, I changed the names of participants, stores and streets to pseudonyms.

Interviews

I conducted the interviews from from June 2008 through July 2009 and designed them to elicit detailed information about the lives, diets, food preferences, physical activities, exercise resources, nutritional knowledge and neighborhood experiences of residents. They were face-to-face, open-ended and semistructured. At the beginning of interviews, I attempted to develop rapport and get to know participants. I then asked about their neighborhoods, diets, food sources, physical activities, exercise resources and nutritional knowledge. The interview prompts were designed to elicit detailed discussions of perceptions and processes in food and physical activity acquisition. I also probed for follow-up responses to get at their unique outlooks, circumstances and considerations in arriving at decisions and actions.

I spoke to a sample of 25 interviewees from the near-northwest neighborhood and 22 interviewees from the lower-east neighborhood. Participants ranged in age from 18-56. There were 22 men and 25 women. All participants identified as African American. Of the 47 residents I spoke with, four owned their own homes, 22 were employed at the time of the interview and 35 had completed high school. The interview times ranged from

28 minutes to two hours and 45 minutes. The median length was 49 minutes and the mean length was 57 minutes. Whenever possible, I would conduct informal ethnographic observation to supplement the interviews by shopping for food, eating, walking and otherwise spending time with participants. I conducted observations with 21 of the 47 participants, often before or after interviews were conducted.

Participants were asked to rate their health and to describe any health issues they had experienced. Six participants identified chronic, debilitating health issues or rated their overall health as poor. The remainder (41 out of 47) rated their health in the range between average and excellent (see Table 1.1). Although I did not ask respondents to disclose their height or weight, 18 out of 47 mentioned that they considered themselves overweight or were trying to lose weight. It is likely, however, that more than half of the individuals I spoke with would be labeled by medical professions as overweight or obese.

Recruitment

I contacted potential participants in a variety of ways. I greeted and approached people sitting on their porches, waiting at bus stops, and otherwise living their lives². 12 participants introduced me to other individuals who participated in the study. Hence, the recruitment was a combination of non-random and snowball approaches. Interviewees chose to be interviewed at their homes, local public spaces or an office in the University of Michigan's Detroit Center. Participants had to be at least 18 years of age or older and living in the neighborhoods defined in the settings section below.

Early in the data collection process, I walked or biked through residential areas, attempting to introduce myself to potential participants. When I found people willing to chat, I described the study and offered them a flier describing the research. The flier

indicated that participants would be compensated with 15 dollars. It quickly became apparent that because of the incentive, lower-income residents were more likely to participate. To interview a greater share of individuals living above the poverty line (which was more than half of the population in each neighborhood, according to the Census), I recalibrated the locations of my recruitment efforts. I targeted public spaces commonly used by higher-income residents. In the near-northwest, I frequently stood outside of the neighborhood post office. In the lower-east, I recruited during late afternoons and early evenings, in an attempt to meet people arriving home from work. These strategies eventually yielded participants from a fairly representative mix of economic backgrounds. Similar efforts were not necessary to ensure that the sample reflected the gender, age, and family structure distributions of the neighborhoods.

Ethical Considerations. I obtained ethical approval in accordance with the requirements of the Institutional Review Board at the University of Michigan. For the sake of anonymity, I changed the names of participants, stores and streets to pseudonyms. I provided consent forms to participants and reviewed their content, verifying that their confidentiality would be protected, they could decline to answer any question and could withdraw from the study at any time. I was aware of my positions of privilege throughout the data collection. As a White, middle-class, male, academic, there were awkward moments in my attempts to develop rapport with participants. Neighborhood residents occasionally eyed me with suspicion or ignored me altogether. I was conscious of the implications of being an outsider to their communities, but as a Detroit native and resident, I believed that I could empathize with many of their concerns. I also found that I could develop strong relationships with participants by demonstrating familiarity with the

neighborhoods and local food sources, humble dedication to my research and sincere interest in their lives.

The Settings

Near-Northwest. The near-northwest neighborhood is comprised of five contiguous census tracts, all of which contain similar rates of poverty and education (see Table 1.2). The side streets are a mix of duplexes, apartments and single-family homes. Two major thoroughfares bisect the neighborhood. One is a mainly commercial thoroughfare running roughly east and west through the heart of the neighborhood. The other is a mix of residential and commercial uses and runs roughly north and south. Three other major thoroughfares border the five census tracts. On the western edge of the neighborhood, an interstate highway forms a very difficult to traverse physical barrier. Before its construction, 15 streets at the western edge of the neighborhood went from the neighborhood into communities to the west. Today, 13 of those streets now end at the interstate. Only two streets and two pedestrian bridges are traversable along the 1.96 mile stretch³.

Census tract data indicate high levels of poverty among near-northwest residents (approximately 40%), as well as low levels of education (approximately 60% have graduated high school). Decennial data also show the neighborhood's population slowly declining through decades of deindustrialization, white flight and other social changes⁴. Between 1990 and 2000, the population declined by 3,451 people in the neighborhood (19.5 percent). Residents today are almost exclusively African American (approximately 98%). Although the population has declined, the neighborhood remains a significant part of Detroit. Many blocks are still filled with sturdy homes and occupied by economically

diverse residents (more than 60 percent of the neighborhood's residents are above the poverty line). The 2000 Census estimated 14,286 residents living in the five tracts.

The neighborhood was initially developed in the 1910s and 1920s. It was first inhabited by skilled laborers and their families. The streets were lined with modest, well-built homes and apartment buildings, attracting a mix of classes (but explicitly hostile to African-Americans). Many of the buildings from this period remain in the community today. After World War II, middle-class African Americans began to purchase and rent homes in the neighborhood. For a brief moment in the early 1950s, the neighborhood had substantial African American and White (especially Jewish) populations.

On July 24, 1967, police raided an after hours club a few blocks to the east of the neighborhood where approximately 90 patrons were celebrating the return of four Vietnam veterans. A community uprising began and quickly spread throughout the city, including along the main thoroughfares of the near-northwest neighborhood. Despite perceptions that most of the neighborhood was destroyed during the uprising, hardly any of the residential buildings in the neighborhood went up in flames. Most of the damage was to commercial businesses, such as small grocers. Near the starting point of the uprising, homes and shopping centers have been constructed over the last few decades to replace many of the destroyed properties. This reality contradicts the popular outsider's image of Detroit (still the nation's 11th largest city) as a mostly abandoned city. Still, a number of neglected apartments and houses have been demolished and cleared while others await renovation or demolition. "Urban prairies" of tall grass, weeds, wildflowers and trees grow unchecked on many lots.

In the 1950s, park spaces and grocery stores were ubiquitous. Many of the

“pocket parks” in the neighborhood are no longer maintained by the city's parks and recreation department (see photos). In 1954 a full-service grocery store opened across the street from a national chain store at the center of the neighborhood. This was the third full-service grocery store serving the community. However, racial segregation was reintroduced by White (Jewish) flight, blockbusting and the development of interstate highways and suburbs. By the end of the 1950s, the neighborhood was comprised mainly of African Americans, but the landlords, business-owners and police in the neighborhood remained mostly White. By the early 1970s, the grocery store that opened in 1954 was the only one that remained, as the first two had closed or relocated. Today, it remains the only full-service grocery store accessible to many residents.

Lower-East. The lower-east neighborhood is comprised of three contiguous Census tracts and has a population of 7,302 residents (See Table 1.2). Two modest thoroughfares bisect the community. Commerce is limited to one shopping area at the intersection of the major bisecting roads. A cemetery lies at the northeast corner of the neighborhood. A high school serves students from across the city at the community's southeast corner. The remainder of the neighborhood is dedicated exclusively to residential and park purposes. Nearby, a major commercial thoroughfare is located just south and parallel to the neighborhood. Another major commercial thoroughfare runs across the northwest corner of the community.

The lower-east has slightly lower (but still above the national and state averages) poverty rates compared to the near-northwest neighborhood, newer buildings, better maintained parks and infrastructure. It contains newer buildings, better maintained parks and infrastructure and one of the city's largest recreation centers. In addition, lower-east

residents can take advantage of resources in nearby parts of Detroit. These resources include proximity to Downtown, the city's recently redeveloped riverfront parks and the Dequindre Cut (a park linking the riverfront to the nearby Eastern Market farmer's and wholesaler's market). The shopping center at the center of the neighborhood contains the community's only major grocery store, a dollar store, liquor store, health clinic, foot specialist and a library branch.

Despite the fact that some of Detroit's earliest settlements were located near East Lafayette, almost every building currently in the neighborhood was built in the past half century. This is because of some of the most aggressive urban renewal projects in the United States took place in and around the East Lafayette area in the 1940s, 50s and 60s. Before then, its residents lived in ramshackle homes built by European immigrants in the mid-late 19th century (Sugrue 2005).

Today, the neighborhood is almost exclusively home to African Americans (approximately 95%). Its apartments, townhouses, condominiums and parks distinguish it from the near-northwest neighborhood. There are virtually no boarded up buildings and no "urban prairies" amid the carefully landscaped, planned communities. Still, poverty remains a significant problem in the neighborhood. A large soup kitchen just east of the community serves many local residents. Two large public housing developments have been constructed in the neighborhood in recent decades.

The choice of these two neighborhoods provides me with a unique opportunity to compare the impacts of distinct neighborhood environments on food choices on residents with similar rates of poverty and education. Beyond socioeconomic status, there are other significant differences between the neighborhoods. According to the 2000 Census, the

lower-east has a larger population of residents aged 65 and above (19.8%) than the near-northwest (14.0%). Conversely, the near-northwest had more residents under the age of 5 (8.3%) than the lower-east (5.9%). Although I only interviewed adults between 18 and 56, it is important to consider the role of each neighborhood's age composition, as well as the ages of each participant's neighbors and others in their households, such as children and older adults.

Analysis

Interviews were recorded and transcribed verbatim. I supplemented interview transcripts with fieldnotes taken during and after interviews and informal observations. I analyzed data using a grounded theory approach (Glaser & Strauss, 1967; Corbin & Strauss, 1990). Using NVivo 7 data analysis software, I coded all of the interview transcripts and fieldnotes to discern relevant themes and then developed themes into memos. I continuously refined theoretical ideas using retroduction, moving from interview data analysis to conceptual reframing (Emerson, 2004; Katz, 1983). As theoretical concerns and conceptual categories emerged, I sought new forms of relevant data.

Dissertation Outline

In the first article of this dissertation (Chapter 2), I examine the barriers that residents face and the strategies they devise for obtaining food. In light of food sources, community contexts, structural factors, and the individual characteristics of participants, I explore the varying potential for agency and strategy in food acquisition. In the second article, Chapter 3, I examine the obstacles that residents face and the strategies they devise for engaging in physical activity. Given the variation between the neighborhoods in terms of resources (such as parks and recreational facilities) and the variation among

participants in their own resources (such as access to equipment), I explore whether and how residents devise ways to engage in exercise. In the third article (Chapter 4), I discuss two facets of eating and exercise behaviors: nutritional knowledge and the measurement of “non-leisure time” physical activities. I compare the scholarly understandings and lived experiences of residents regarding their nutritional knowledge and forms of physical activities. As Chapter 4 suggests, bringing residents' everyday knowledge, experiences and practices into the fore calls into question many scholarly understandings of diet and exercise in the inner-city. Finally, the conclusion brings together research and policy implications. It details how structural changes are necessary but insufficient to change health behaviors without a comprehensive understanding of how residents perceive and respond to the challenges in their neighborhoods.

Notes

1. This idea was suggested by Renee Anspach (personal communication, November 4, 2008).
2. I specifically avoided making contacts at or near physical activity resources such as parks and recreational facilities.
3. The consequences of highway construction in Detroit's African American communities are discussed at length by Thomas Sugrue (2005).
4. Deindustrialization and white flight were well underway before the uprisings of 1967. See Thomas Sugrue (2005) for a detailed discussion.

References

- Anderson, B. E., Lyon-Callo, S. K., Monje, S. E., Boivin, M. D., & Imes, G. (2009).
Overweight and Obesity in Michigan: Surveillance Report Series 2009. Lansing,
MI: Michigan Department of Community Health, Bureau of Epidemiology,
Chronic Disease Epidemiology Section.
- Campos, P., Saguy, A. C., Ernsberger, P., Oliver, E., & Gaesser, G. (2006). The
epidemiology of overweight and obesity: Public health crisis or moral panic?
International Journal of Epidemiology, 35(1), 55-60.
- Centers for Disease Control (CDC). (2008). Physical activity and good nutrition:
Essential elements to prevent chronic diseases and obesity. Retrieved from
<http://www.cdc.gov/nccdphp/publications/aag/pdf/dnpa.pdf>
- Dailey, R., Schwartz, K. L., Binienda, J., Moorman, J., & Neale, A. V. (2006). Challenges
in making therapeutic lifestyle changes among hypercholesterolemic African-
American patients and their physicians. *Journal of the National Medical
Association*, 98(12), 1895-1903.
- Gallagher, M. (2007). *Examining the impact of food deserts on public health in Detroit*.
Chicago: Mari Gallagher Research and Consulting Group.
- Giddens, A. (1979). *Central problems in social theory: Action, structure and
contradiction in social analysis*. London, UK: Macmillan.
- Hochberg, M. C., Lethbridge-Cejku, M., Scott, W. W. Jr., Reichle, R., Plato, C. C., &
Tobin, J. D. (1995). The association of body weight, body fatness and body fat
distribution with osteoarthritis of the knee: Data from the Baltimore
Longitudinal Study of Aging. *The Journal of Rheumatology*, 22(3), 488-493.

- Olshansky, S. J., Passaro, D. J., Hershow, R. C., Layden, J., Carnes, B. A., Brody, J., . . . Ludwig, D. S. (2005). A potential decline in life expectancy in the United States in the 21st century. *New England Journal of Medicine*, *352*(11), 1138-1145.
- Rippe, J. M. (1996). Overweight and health: Communications challenges and opportunities. *American Journal of Clinical Nutrition*, *63*, 470S-473S.
- Robert Wood Johnson Foundation. (2009). F as in fat: how obesity policies are failing in America. Princeton, NJ. Retrieved from <http://healthyamericans.org/reports/obesity2009/>. Accessed June 17, 2010.
- Ross, C. E., and Mirowsky, J. (2001). Neighborhood disadvantage, disorder, and health. *Journal of Health and Social Behavior*, *42*, 258-276.
- Saguy, A. C., & Riley, K. W. (2005). Weighing both sides: morality, mortality, and framing contests over obesity. *Journal of Health Politics, Policy and Law*, *30*(5), 869-921.
- Schulz, A. J., & Lempert, L. B. (2004). Being part of the world: Detroit women's perceptions of health and the social environment. *Journal of Contemporary Ethnography*, *33*(4), 437-465.
- Schulz, A. J., Williams, D. R., Israel, B. A., & Lempert, L. B. (2002). Racial and spatial relations as fundamental determinants of health in Detroit. *The Millbank Quarterly*, *80*(4), 677-707.
- Sowers, J. R. (2003). Obesity as a cardiovascular risk factor. *The American Journal of Medicine*, *115*(8A), 37S-41S.
- Sugrue, T. (1997). *The origins of the urban crisis: Race and inequality in postwar Detroit*. Princeton, NJ: Princeton University Press.

World Health Organization (WHO). (2003). Joint WHO/FAO Expert Consultation on diet, nutrition and the prevention of chronic diseases, diet, nutrition and the prevention of chronic diseases: report of a joint WHO/FAO expert consultation. Geneva, Switzerland: WHO.

Wyatt, S. B., Winters, K. P., & Dubbert, P. M. (2006). Overweight and obesity: Prevalence, consequences, and causes of a growing public health problem. *The American Journal of the Medical Sciences*, 331(4), 166-174.

Table 1.1. Self-rated health of sample

	Frequency
Excellent	4 of 47 (8.5%)
Good	27 of 47 (57.4%)
Average	10 of 47 (21.3%)
Poor	6 of 47 (12.8%)

Notes: Open-ended interview data were grouped into the above four categories. For example, “Excellent” included participants who described their health as “excellent”, “great”, and “wonderful”. “Average” included participants who described their health as “average”, “decent”, “fair”, “so-so”, and “needs improvement”.

Table 1.2. Neighborhood Population and Poverty, High School Graduation Rates

Census Tracts	Individual Poverty Rate	High School Graduation Rate
Near-Northwest		
Tract 1	41.7%	56.7%
Tract 2	40.3%	60.6%
Tract 3	30.0% ^a	65.0%
Tract 4	39.3%	64.9%
Tract 5	30.7%	66.0%
Lower-East		
Tract 1	37.4% ^b	70.9%
Tract 2	16.7%	85.0%
Tract 3	24.9%	66.8%

Notes: Data are from the 2000 census.

^a The individual poverty rates were measured in 1999, which appears to have been but a brief respite from longer-term poverty neighborhood residents have experienced. The individual poverty rates for the near-northwest tracts 3 and 5 were 43.4% and 43.2%, respectively in the 1990 census (1989 data). These two tracts do not otherwise appear to be unique compared to the other three.

^b Tract 1 in the lower-east contains a large public housing development with over 1,000 residents and higher rates of poverty.

Chapter 2

Food

Introduction

Nutritional practices are correlated with a number of health indicators such as obesity, diabetes and heart disease. The rates of these negative health outcomes in Detroit, Michigan exceed both the national average and the rates of surrounding areas. A recent study estimated Detroit's adult obesity rate to be 38.1% and Michigan's rate to be 30.1% (Anderson, Lyon-Callo, Monje, Boivin, & Imes, 2009). The National Institutes of Health (2008) have estimated that 7.8% of Americans have type II diabetes, but a sample of African Americans living in Detroit's eastside and southwest found 13.5% living with the disease (Kieffer et al., 2006).

Many researchers and physicians have argued that at-risk individuals need to take personal responsibility for changing their eating habits (Dailey, Schwartz, Binienda, Moorman, & Neale, 2006; Rippe, 1996). However, individuals living in low-income neighborhoods may experience unique difficulties obtaining nutritious foods. Indeed, community contexts and poverty, have become central to sociological examinations of health disparities (Schulz, Williams, Israel, & Lempert, 2002; Ross & Mirowsky, 2001). Although they account for important contextual influences, structural theories view health decisions in an overly deterministic manner that ignores the agency of human actors. They illuminate important macro- and meso-level influences on health behaviors, but cannot account for the complexity of individual actors.

In this article, I explore the barriers that residents of two low-income Detroit neighborhoods face and the strategies they devise for obtaining food. In doing so, I address a number of broader sociological and public health concerns: the relationship between agency and structure, the healthfulness of neighborhoods, and the role of resources in health behaviors. Specifically, I examine how residents think about options and make decisions concerning sources of food. In what ways are their perceptions, decisions, actions and routines shaped in response to barriers and resources in their neighborhoods? I approach the acquisition of food as resulting from the interplay of agency and structure. This research has significant implications for understanding the eating habits of residents in low-income neighborhoods.

Agency is neither a constant nor an independent force, but rather a variable that depends partially on structural conditions and neighborhood contexts¹. As Giddens (1979) pointed out in his theory of “duality”, structure and agency are not opposing forces, but rather mutually constituted. I treat agency as a powerful force in responding to and changing structures pertaining to food acquisition, but also partially constituted by its location vis-à-vis social structures and neighborhood contexts. In other words, I seek to understand the role and potential of agency in the context of limited neighborhood, social and economic resources. In doing so, I provide an approach avoids the determinism of overly-structural explanations, as well as the victim-blaming and romanticism engendered by an over-emphasis on the agency of individuals with limited access to healthy foods.

Background

Changing Food Acquisition Behaviors

Government health agencies have recommended diets based on lean meats, whole grains, and the consumption of at least five servings of fruits and vegetables daily (Drewnowski & Darmon, 2005; U.S. Department of Agriculture, 1990). However, Serdula and colleagues (2004) estimated that only one in four Americans actually meet these guidelines. Health behavior theories, many of them cognitive behavioral models, have been used to understand an array of health decisions, including eating habits. The health belief model (HBM) was one of the first models to combine cognitive behavioral theories with a rational choice approach to promote positive health behaviors (Rosenstock, 1974). According to the HBM, individuals take action to change their health behaviors on the basis of their subjective beliefs about the severity of the health condition they wish to prevent (such as obesity), their susceptibility to it, and the costs, benefits, and barriers involved in addressing it (by changing one's diet, for example) (Kessler, House, Anspach, & Williams, 1995). Cues to action, such as interventions that look to capitalize on “teachable moments” in the lives of patients, are often necessary to facilitate this process. For example, mothers of obese children complied more with medical authorities after “fear-arousal interventions” targeted their perceptions of disease threat and the benefits of changing dietary practices (Becker, Maiman, Kirscht, Haefner, & Drachman, 1977).

This model has been criticized for its lack of attention to cultural values, social and organizational contexts, and the influence of emotion on decision making process (Kessler, House, Anspach, & Williams, 1995). Furthermore, the model assumes that what is rational in health behavior corresponds with the evolving recommendations of Western medicine, as opposed to incorporating dimensions lying outside the boundaries of

professional knowledge (Shaw Hughner & Schultz Kleine, 2008). Empirical research has occasionally found that the use of the health belief model failed to produce behavioral changes related to health behaviors such as safe food handling (McArthur, Holbert, & Forsythe, 2006)

In response to some of the problems identified with the HBM, some researchers have made efforts to account for cultural influences and social networks in their attempts to change health behaviors. Hovell, Wahlgren, and Gehrman (2002) developed the behavioral ecological model (BEM) to explain how individual health behaviors are reinforced by interactions within social networks, communities and broader organizational contexts. The BEM stresses the interaction of physical and social functions in health behaviors to understand and ultimately change them. Structural inequalities have also become central to sociological examinations of health behaviors (Link & Phelan, 1995). Health behaviors in these studies are viewed as deeply entwined with resources and social environments.

Although they account for important contextual influences on health decisions, ecological and structural theories and models retain an overly deterministic view that ignores the agency of human actors. They illuminate important macro- and meso-level influences on health behaviors, but cannot account for the complexity of individual actors in multifarious social contexts. Little is known about what residents actually *do* when faced with structural constraints. As Schulz and Lempert (2004) argue in their ethnography of the ways in which Detroit neighborhoods affect health, “Understanding the nature of inequalities and the *strategies residents devise to address them* are likely to be central to our understanding of, and societal efforts to eliminate, racial disparities in

health.” [emphasis added]

Structural Constraints

More than half of Detroit residents (approximately 550,000) live in “out-of-balance” food environments—areas where they must travel at least twice as far to reach the closest mainstream grocer as they do to reach a “fringe food” location, such as a fast food restaurant or a convenience store (Gallagher, 2007). In metropolitan Detroit, low-income, predominately Black neighborhoods are, on average, 1.1 miles farther from the nearest supermarket than low-income, predominately White neighborhoods (Zenk et al., 2005a). A low-income, predominately Black community on Detroit's Eastside had more than four times as many liquor stores, fewer supermarkets, and lower quality produce when compared to a nearby, racially heterogeneous, middle-income community (Zenk et al., 2005b). U.S. secondary schools in the lowest income neighborhoods versus the highest-income neighborhoods also had more fast food and convenience store outlets within walking distance (0.5 miles) (Zenk & Powell, 2008). African American neighborhoods have greater prevalence of fast food restaurants and a higher proportion of restaurants that are classified as fast food (Block, Scribner, & DeSalvo, 2004; Lewis et al., 2005).

Prior research has shown that food sources in neighborhood environments condition and constrain eating habits. A positive correlation exists between the availability of healthful products in stores and the reported healthfulness of individual diets (Cheadle et al., 1991). In addition to availability, cost is a significant barrier to healthy food acquisition. Monsivais and Drewnowski (2007) demonstrated that high-energy-density (high-calorie) foods were more affordable and more resistant to inflation

than low-energy-density foods. Moreover, Drewnowski and Darmon (2005) found that “added sugars and added fats are far more affordable than are the recommended ‘healthful’ diets based on lean meats, whole grains, and fresh vegetables and fruit.” These economic factors have significant ramifications for the food choices of impoverished individuals.

Beyond cost and availability, Barnes (2005) found more discrete barriers to obtaining food in poor neighborhoods in Gary, Indiana. Through the use of in-depth interviews, residents illuminated issues with food quality, transportation, and the emotional toll of unpleasant Gary markets (e.g. the presence of security guards and bars to keep shopping carts inside the stores). She found that Gary residents spent nearly 50 dollars more per month on the same groceries compared to their counterparts outside the city. They also faced discriminatory encounters when traveling to suburban markets.

The Limitations of Structural Constraints – Culture, Change and Agency

An exclusive focus on these macro-level influences on health behaviors risks overlooking an important component in the process of food acquisition: agency. As Giddens (1979) pointed out in his theory of “duality”, structure and agency are not opposing forces, but rather mutually constituted. Rather than constraining agency, Giddens saw structure as enabling it. He argued that social actors are knowledgeable and capable of acting in creative and innovative ways that can become widespread, transforming structures. Sewell (1992) developed the idea of dynamic structures by pointing out that social actors can draw from a multiplicity of resources, cultural schemas, perceptions and actions to transform structures. For instance, the proliferation of community gardens in Detroit and other urban areas is influenced by community

contexts (depopulating spaces) and critical actors capitalizing on opportunities for new and better food sources.

Research on structural factors tends to overlook the role of culture. Bourdieu's (1977) conception of habitus might help to fill this gap and explain the development and reproduction of dispositions regarding food. Habitus can be viewed as a set of tacit, taken-for-granted practices that symbolically mark one's membership in a social group. When applied to eating, habitus can help explain cultural preferences and tastes for particular foods, such as soul food. Indeed, distinct dispositions exist regarding food in Detroit neighborhoods. This is reflected, for example, by the numerous Coney Island restaurants (which combine traditional American “greasy spoon” fare, chili dogs and Greek foods such as gyros and pita sandwiches). The ubiquity of these options may dissuade residents from practicing a health promoting diet. Beyond the habitus, the resources that individuals and their communities have can enable or constrain these practices. Changes in neighborhood environments, such as the flight of inner-city grocery stores, shape the fields of interaction that social actors engage. On the other hand, it is important to consider the ability of actors to critically evaluate their choices and imagine different possibilities in their fields of interaction.

Historical contexts shaping food cultures are also important to consider. African American food cultures have evolved over the centuries within in the United States. Carney (2001) documented the importance of slaves introducing rice cultivation to the United States. Williams-Forson (2006) discussed the changing significance of chicken in the lives of African American women. She details how many sold chicken to railway passengers as a means of livelihood and self-empowerment a century ago, then compares

this history with present-day racist stereotypes about chicken consumption. Hence, the meanings attached to food are variable and constantly evolving. Emotion is another important but understudied subject in studies of food acquisition. Much of the research in this area examines food-related emotions as coping behaviors for stress, racism and poverty (Woods-Giscombe, 2010; Walcott-McQuigg, 1995). However, less has been written about potential links between “positive emotions” and food, such as pleasure, nurturing and comfort.

Social actors have the capacity to pursue numerous responses to the challenges of acquiring food. Yet, as some theorists have pointed out, human agency is not limitless. In other words, it is never completely independent of the influence of structure and context in the Kantian sense of transcendental free will (Emirbayer & Mische, 1998). Bourdieu (1984), for example, detailed the ways in which external structures are internalized along class lines, leading to the reproduction of thought and behavioral processes. In his discussion of “health lifestyles”, Cockerham (2004) argued that health behaviors in practice feedback into the the habitus, and that normative social contexts reinforce their approval or rejection. He argued that structure, at minimum, outweighs the potential of agency and, in the extreme, overwhelms it. Bourdieu and Cockerham acknowledged autonomy and variation in health behaviors, but they privileged the role of structure, resources and social contexts in shaping agency and reproducing constraints on it. Although they pointed out serious flaws in understandings of health decisions that overemphasize personal responsibility, their frameworks cannot explain innovative and creative responses to structural constraints and emerging patterns that revise the contexts in which choices are made.

Variation within communities. One cannot understand food acquisition decisions and actions by simply accounting for individual characteristics in conjunction with broader neighborhood and structural conditions; agency must be considered. Responses to neighborhood contexts vary tremendously—not only according to factors like access to transportation, class, and age, but by things much more difficult to measure, such as creativity, innovation, emotions, and culture. Critics have pointed out that the diversity of perspectives and experiences often goes unreported in studies of urban communities (Kelley, 1998; Gwantley, 1975). The variety of responses possible for individuals in similar circumstances must be considered. DeVault (1991) found that the work of “feeding a family” is situated in structural contexts, but carried out with multifarious innovations and practices.

Overemphasizing agency. An exclusive focus on agency risks downplaying the obstacles presented by dire structural conditions. Stack (1977) highlighted the agency, resourcefulness, and resilience of families facing persistent poverty. She found that the presence of strong, supportive kin networks enabled actors to pursue an array of innovative solutions to challenges such as food shortages. But her work has been criticized for romanticizing life in impoverished neighborhoods. An overemphasis on agency might also engender calls for personal responsibility. Hodgetts et al. (2005) found that media messages cultivate a view of health as a personal obligation or achievement, while ignoring structural disadvantages that impact nutritional choices. Hence, an approach that ignores broader contextual forces can lead to romanticism or an overemphasis on personal responsibility. On the other hand, an exclusively structural approach can be causally deterministic, ignoring agency and the diversity of perspectives

and experiences. By examining agency, structure and the interplay between them, I attempt to provide a more complete picture of food acquisition in two Detroit neighborhoods.

Methods

To answer the research questions, I used 47 semistructured, in-depth interviews from residents in two Detroit communities. Participants in this study came from two neighborhoods: one is on the near-northwest side of the city, and the other is located on the lower-east side.

Interviews

I conducted the interviews from from June 2008 through July 2009 and designed them to elicit detailed information about individual lives, diets, food preferences, nutritional knowledge and neighborhood experiences. They were face-to-face, open-ended and semistructured. At the beginning of interviews, I attempted to develop rapport and get to know participants. I then asked about their neighborhoods, diet, food sources and nutritional knowledge. The interview prompts were designed to elicit detailed discussions of perceptions and processes in food acquisition. I also probed for follow-up responses to get at their unique outlooks, circumstances and considerations in arriving at decisions and actions.

I spoke to a sample of 25 interviewees from the near-northwest neighborhood and 22 interviewees from the lower-east neighborhood. Participants ranged in age from 18-56. There were 22 men and 25 women. All participants identified as African American. Of the 47 residents I spoke with, four owned their own homes, 22 were employed at the time of the interview and 35 had completed high school. The interview times ranged from

28 minutes to two hours and 45 minutes. The median length was 49 minutes and the mean length was 57 minutes. Whenever possible, I would conduct informal ethnographic observation to supplement the interviews by shopping for food, eating and otherwise spending time with participants. I conducted observations with 21 of the 47 participants, often before or after interviews were conducted.

Participants were asked to rate their health and to describe any health issues they had experienced. Six participants identified chronic, debilitating health issues or rated their overall health as poor. The remainder (41 out of 47) rated their health in the range between average and excellent (see Table 2.1). Although I did not ask respondents to disclose their height or weight, 18 out of 47 mentioned that they considered themselves overweight or were trying to lose weight. It is likely, however, that more than half of the individuals I spoke with would be labeled by medical professions as overweight or obese.

Recruitment

I contacted potential participants in a variety of ways. I greeted and approached people sitting on their porches, waiting at bus stops, and otherwise living their lives². 12 participants introduced me to other individuals who participated in the study. Hence, the recruitment was a combination of non-random and snowball approaches. Interviewees chose to be interviewed at their homes, local public spaces or an office in the University of Michigan's Detroit Center. Participants had to be at least 18 years of age or older and living in the neighborhoods defined in the settings section below.

Early in the data collection process, I walked or biked through residential areas, attempting to introduce myself to potential participants. When I found people willing to chat, I described the study and offered them a flier describing the research. The flier

indicated that participants would be compensated with 15 dollars. It quickly became apparent that because of the incentive, lower-income residents were more likely to participate. To interview a greater share of individuals living above the poverty line (which was more than half of the population in each neighborhood, according to the Census), I recalibrated the locations of my recruitment efforts. I targeted public spaces commonly used by higher-income residents. In the near-northwest, I frequently stood outside of the neighborhood post office. In the lower-east, I recruited during late afternoons and early evenings, in an attempt to meet people arriving home from work. These strategies eventually yielded participants from a fairly representative mix of economic backgrounds. Similar efforts were not necessary to ensure that the sample reflected the gender, age, and family structure distributions of the neighborhoods.

Ethical Considerations. I obtained ethical approval in accordance with the requirements of the Institutional Review Board at the University of Michigan. For the sake of anonymity, I changed the names of participants, stores and streets to pseudonyms. I provided consent forms to participants and reviewed their content, verifying that their confidentiality would be protected, they could decline to answer any question and could withdraw from the study at any time. I was aware of my positions of privilege throughout the data collection. As a White, middle-class, male, academic, there were awkward moments in my attempts to develop rapport with participants. Neighborhood residents occasionally eyed me with suspicion or ignored me altogether. I was conscious of the implications of being an outsider to their communities, but as a Detroit native and resident, I believed that I could empathize with many of their concerns. I also found that I could develop strong relationships with participants by demonstrating familiarity with the

neighborhoods and local food sources, humble dedication to my research and sincere interest in their lives.

The Settings

Near-Northwest. The near-northwest neighborhood is comprised of five contiguous census tracts, all of which contain similar building-types and rates of poverty. The side streets are a mix of duplexes, apartments and single-family homes. Bordering and bisecting the neighborhood are mainly commercial thoroughfares. On the western edge of the neighborhood, an interstate highway forms a very difficult to traverse physical barrier. Before its construction, 15 streets at the western edge of the neighborhood went from the neighborhood into communities to the west. Today, 13 of those streets now end at the interstate. Only two streets and two pedestrian bridges are traversable along the 1.96 mile stretch³.

Census tract data (see Table 2.2) describe high levels of poverty among near-northwest residents (approximately 40%), as well as low levels of education (approximately 60% have graduated high school). The neighborhood's population is declining. Between 1990 and 2000, Census data showed 3,451 fewer people in the neighborhood (19.5%). The population today is almost exclusively African American (approximately 98%). Although the population has declined, the neighborhood remains a significant part of Detroit. Many blocks are still filled with sturdy homes and occupied by economically diverse residents (more than 60 percent of the neighborhood's residents are above the poverty line). The 2000 Census estimated 14,286 residents living in the five tracts. Still, a number of neglected apartments and houses have been demolished and cleared while others await renovation or demolition. "Urban prairies" of tall grass, weeds,

wildflowers and trees grow unchecked on many lots.

Lower-East. The lower-east neighborhood is comprised of three contiguous Census tracts and has a population of 7,302 residents (See Table 2.2). It has slightly lower (but still above national and state average) poverty rates compared to the near-northwest neighborhood. It contains newer buildings and better maintained parks and infrastructure. In addition, lower-east residents can take advantage of resources in nearby parts of Detroit. These resources include proximity to Downtown, Eastern Market (a large farmers' and wholesalers' market) and the city's recently redeveloped riverfront. Commerce is limited to one shopping area at the center of the neighborhood.

Almost every building in the lower-east was built in the past half century, because of aggressive urban renewal projects in and around the area after World War II (Sugrue 2005). Today, the neighborhood is mostly home to African Americans (approximately 95%). Its apartments, townhouses, condominiums and parks distinguish it from the near-northwest neighborhood. There are virtually no boarded up buildings or “urban prairies” amid the housing developments. Still, poverty remains a significant problem. A nearby soup kitchen serves many local residents. Two large public housing developments have been constructed in the neighborhood in recent decades. The choice of these communities offers a unique opportunity to compare the impacts of two distinct neighborhood environments on the food choices of individuals in similar economic circumstances.

Analysis

Interviews were recorded and transcribed verbatim. I supplemented interview transcripts with fieldnotes taken during and after interviews and informal observations. I analyzed data using a grounded theory approach (Glaser & Strauss, 1967; Corbin & Strauss, 1990).

Using NVivo 7 data analysis software, I coded all of the interview transcripts and fieldnotes to discern relevant themes and then developed themes into memos. I continuously refined theoretical ideas using retroduction, moving from interview data analysis to conceptual reframing (Emerson, 2004; Katz, 1983). As theoretical concerns and conceptual categories emerged, I sought new forms of relevant data.

Results

Participants discussed a number of challenges to obtaining food. The vast majority (45 of 47) expressed some form of dissatisfaction with at least one of their local grocery stores. Dissatisfaction regarded prices (41 of 47), food quality (32 of 47), selection (31 of 47), service (16 of 47) and cleanliness (14 of 47). Lack of transportation was a formidable barrier to getting better, cheaper food for many of the people I spoke to. 34 of 47 participants did not have their own automobile. Of those without personal transportation, only four of 34 lived with someone who had an automobile.

Many identified “survival strategies” to respond to the challenges of getting food in their neighborhoods. These efforts included sharing transportation to get to grocery stores, carefully inspecting produce and meat before purchasing, and using a variety of sources to procure needed foods. Although residents employed similar strategies to obtain food in each of the two communities, the feasibility of these strategies varied according to neighborhood contexts. Key features in each neighborhood, such as nearby resources, walkability and safety concerns, enabled or constrained the potency of resident agency.

Barriers

Transportation Issues. Lack of transportation was a formidable barrier to getting better, cheaper food for many of the people I spoke to. Still, most participants traveled

outside of their neighborhoods to get to grocers, restaurants and other food sources. Only five of 47 interviewees relied exclusively on the options in their immediate neighborhood for food acquisition. Nine of 47 relied exclusively on options outside their neighborhoods (seven of those nine participants had their own automobiles). 16 of 47 of participants preferred to shop exclusively outside of the neighborhood whenever possible, but did not have access to their own automobiles. Although transportation was a key factor in being able to shop outside the neighborhood, some respondents *with* their own automobiles *did not* shop outside of their neighborhoods, while other respondents *without* their own automobiles *did* shop outside of their neighborhoods.

Paul, a 51 year old laborer living in near-northwest, was among those who believed that shopping outside the neighborhood was preferable, but often considered local stores within walking distance as the only viable option:

Dan: Where do you get food normally?

Paul: We go to Frazier Avenue and Lincoln Street—the supermarket right there.

Dan: What do you think of that store?

Paul: I don't particularly care for it. If I had an automobile, I would go somewhere else.

Paul's desire to leave the neighborhood to acquire food reflects dissatisfaction for the options in his neighborhood and a desire for better options.

Although public transportation (almost exclusively buses in Detroit) was used by the majority of participants without personal automobiles, many, such as Kiara (a 27 year old woman living in near-northwest), did not see it as a viable way to *get home* with

groceries. When I asked her to explain why she didn't use the buses to get to stores beyond her neighborhood, she explored some of these shortcomings:

Nothing's really stopping me from taking the bus [to the grocery store] if I had to. But I can get the same thing from a closer store, possibly, maybe a couple cents higher. You know, it's the convenience of how fast you can get there and get back. You know, it would be—yes, it would explain some type of hardship because you'd have to wait on the bus with those products and then, you know, get them home. So, yeah, that would be kind of inconvenient, because the bus won't be there as soon as you're done, so you'll be standing there with your ice cream melting.

Her feelings about using public transportation for food acquisition were complex and reflected an internalization of blame for shortcomings in the city's bus system. The bus system was not particularly useful participants needing to purchase large amounts of food. This points to the shortcomings of stores within the neighborhood, as public transportation would be a moot point if she saw acceptable options within the community.

Issues with local food sources – quality, price, selection. Kiara especially did not see the closest store to her as a satisfactory option: “Oh, I don't shop at the Shop Around. I would not shop there. Their meat is green, their cans are beat.”

Although Kiara refused to shop at the closed store to her and did walk farther to get to a store would shop at, she was also not entirely satisfied with her alternative choice: “It's just a normal grocery store... And they're pretty high [priced], but, you

know, considering the neighborhood.”

Jerry, a 24 year old man living in the lower-east without access to an automobile, also preferred to walk to Eastern Market, citing cost as the main issue with stores in the community. He thought that the nearby Save-A-Bunch, despite being cheaper than his other local options, was still overpriced:

The name contradicts the prices in there. You know, you don't really save nothing, man. You're paying Meijer prices in there, actually, or Kroger prices. It's no different. You just get a cheaper brand of food, but you pay those prices. . . . We know when we've been gouged. You know?

Jerry's confidence in his ability to gauge the reasonableness of prices reflects awareness and desire to purchase cheaper food.

Others, like Paul, were dissatisfied but still shopping locally most of the time. This had tangible impacts on his eating habits, as he was less likely to purchase produce:

Dan: Do you normally get produce from the Shop Around?

Paul: Not really—I don't really, uh, like their produce stuff. You know? Because it's not fresh to me. Uh, I've been in there and lettuce be brown and—not the whole lettuce, but, you know, around the edges, bananas that are not fresh like they're supposed to be. They don't look good. You know, grapes are never right! [Laughs] You know, I love grapes. I love fruit—bananas, apples, oranges, uh, grapefruit. But I just don't get 'em if it's not fresh.

In the quote above, Paul identified his dissatisfaction with the produce available

locally as having a direct impact on his diet.

Food Acquisition Strategies

In light of the barriers described above, many participants took actions to combat the issues they perceived at local stores. Despite his lack of access to transportation, Paul found ways to reach stores beyond his immediate surroundings: “There’s a store in the Gardens neighborhood. I’ll be catching buses and stuff. Like when I had my bike, I’d just go on my bike. I built two little cages [onto the bike for carrying groceries].”

Paul's desire to leave the neighborhood to acquire food reflected dissatisfaction with the store nearest to his home. Because of his aversion to the produce options in his neighborhood, he ate more fruits and vegetables when he was able to procure them at stores beyond his neighborhood. However, this strategy was not always feasible because of the amount of time and travel required.

Lucille, a 40 year old medical professional living in the near-northwest with her own automobile, shopped for food exclusively outside of the neighborhood. Her reasons for employing this strategy related primarily to cost and selection: “They price gouge you. . . . The fruits and vegetable selections are very limited. So typically, we drive out to Meijer’s or Walmart or Trader Joes for our food.”

Tina, a 43 year old woman living in the lower-east, regularly teamed up with her boyfriend or other friends with automobiles to travel outside of the neighborhood for grocery shopping. She described an ongoing process of collecting sales papers and visiting several stores in a single outing:

A bunch of us will go. The sales papers come from way out—Six, Seven Mile, or Livernois. . . . They either come in the mail or, for some reason, they send them out here . . . in the mail or some people have people walking, throwing fliers. And either way we get 'em. And we wait 'til—because [they come] at different times of the month—like, some of them might get there on the first of the month to, maybe, the 10th or even maybe as late as the 16th. If I get mine, I'll hold 'em. Then maybe five or six of us will go at that one time . . . [and] get the best sales at the two or three stores that we're gonna go to. . . . And then we'll wait maybe a couple of weeks and we'll go back to the stores again and get what we couldn't get before from the other stores. It's kind of hectic, but it works out, you know? 'Cus by the time the end of the month rolls around, we'll still have enough to make it through to the next month. But we have to catch the sales.

Tina must continuously undertake these elaborate efforts to make her limited food budget last for the entire month.

Others used informal cab services (jitneys) to get to or from food outlets. Often, methods were used in combination, such as walking or taking the bus to a store and hiring a jitney to get home with groceries. Wanda, a resident of near-northwest in her mid-50s with severe arthritis, discussed how she got to her local store:

Wanda: I will walk up to the Shop Around and catch a jitney back.

Dan: Mmm-hmm. Or you said you might call somebody for a ride [back]?

Wanda: Yeah. Mmm-hmm.

Wanda endured additional food procurement costs in hiring a cab to take her home. Her ongoing health problems compounded the transportation difficulties, as walking home with groceries from the nearest store (nearly a mile away) was impossible.

Shopping Strategically. When shopping at local stores, residents devised strategies to mitigate the challenges they perceived. After having several bad experiences with outdated meat in the near-northwest neighborhood, Jimmy devised the following strategy:

So now, we're very picky with the places we go and how we pick our food and look at it. What I do, I put a hole in the stuff, man. My wife says, "Don't be doing that." You know how you poke holes in it, put your nose all up in and smell it.

Jimmy viewed his strategy for checking meat before purchase as necessary because of experiences purchasing spoiled products in the past. As the numerous health inspection reports from the Michigan Department of Agriculture revealed that these issues were ongoing at the store closest to most of the near-northwest residents, with very few penalties or consequences.

Similarly, Ronald, recently unemployed, in his mid-20s and without transportation, carefully looked at expiration dates in local stores in near-northwest: "It might be like this: You might buy a bag of chips in the area that is expired. . . Better be careful."

The strategies used by Jimmy and Ronald were necessary in response to the barriers of stores stocking outdated products.

Vincent, a lower-east resident in his early 50s, sought to address cost and quality issues by shopping at multiple stores within walking distance:

See, when I go to the Tasty Market, that's where I generally get the meat and vegetables. . . . the Save-A-Bunch, for whatever reason—at least it appears to me—that their food is high [priced]—their meats are either higher or not as of good quality. . . . but in terms of the canned goods and the boxed goods and those kinds of things, they're pretty inexpensive. So, I go . . . there, too.

Vincent's multiple source shopping is a strategic response to high prices and differences in quality at two local stores. Each store has a specific type of food (canned and produce) that they sell cheaper. This strategy was enabled by a neighborhood environment (the lower-east) in which he saw multiple stores meeting different needs within walking distance.

Food banks were also used as a strategy to mitigate cost. Wanda, a near-northwest resident in her 50s, stated that she hadn't bought canned goods in about three years because she could get them from food banks. She felt this strategy enabled her to afford fresh produce, dairy and meat. Many other residents in the near-northwest took advantage of food bank sources. Numerous churches and food banks serving the poor stood out as one of the near-northwest's only features that enabled food acquisition better than the lower-east. Chantel, a near-northwest resident in her early 30s, discussed the available nearby food bank sources: “Churches and stuff give out free food. . . . You just gotta know which ones to go to.” Many residents in near-northwest, like Chantel and Wanda, knew of several food bank sources.

Neighborhood Differences and Similarities

Each neighborhood contains only one major grocery store. Both stores feature an exit designed to prevent shopping cart theft. Consequently, shoppers must carry all of their groceries from the store exits. Although the specific stores residents discussed varied, they cited a number of similar problems at stores in and around both neighborhoods—high prices, lack of selection and poor service were cited in roughly equal proportions between communities. However, a key difference between the neighborhoods was perceived quality of local options—22 of 25 near-northwest residents cited this as problematic, whereas only 10 of 22 lower-east residents did so. Lower-east's proximity to Eastern Market, a consistent source of fresh produce, might help explain this difference.

Traveling outside of the neighborhood to procure food was not an equally viable strategy for residents of the two neighborhoods in this study. June, a 40 year old resident of the lower-east, was able to get to Eastern Market by walking: “I walk through the apartments and take my little shortcut and I end up over there at the Eastern Market. . . . I get a better deal.”

Although June did not have an automobile, she was still able to pursue a strategy wherein she could obtain cheaper and healthier foods by walking to an adjacent section of the city. This is because of the lower-east neighborhood's proximity to Eastern Market. Kiara refused to shop at the store nearest to her because of quality concerns. She walked farther to shop at another store. However, she was still unsatisfied with the high prices at her alternative choice. Unlike June in the lower-east, Kiara's extra walking could only

reasonably get her to a store that she was still somewhat dissatisfied with.

More respondents expressed concerns about crime and personal safety in the near-northwest (21 of 25) than the lower-east (8 of 22). Personal safety concerns also appeared to relate to gender, with 12 of 22 of men interviewed expressing personal safety concerns and 17 of 25 women. Residents who were concerned about crime were more reluctant to walk longer distances to stores they perceived as better than options closer to home. Concerns about crime limited the ability of respondents to pursue stores outside of their immediate communities. Michelle, an 18 year old woman living in the near-northwest, discussed being robbed during the daytime while walking about one mile from her home: “It's certain places I won't go in the daytime. . . .Like, the General Market. . . . That's where I got robbed at. And it was in daylight, you know? Wasn't nobody helping me.”

This experience made Michelle reluctant to take longer walks to get to stores she perceived as better. As a result, she tended to rely on less-desirable food sources closer to her home.

Discussion

Although statistics show residents of Detroit worse off on most indicators of food-related health, many study participants made complex efforts to cope with injurious neighborhood environments every day. They faced challenges in their neighborhoods that many academics, policy makers and suburban residents do not confront in their everyday experiences. Far from being passive victims of these obstacles, many residents devised elaborate strategies to obtain food. Strategies ranged from mobilizing resources within social networks to shopping strategically. It's important not to underestimate the creativity

and innovation of individual actors when getting food. Still, structural constraints remain significant and are often difficult or impossible to overcome.

Neighborhood barriers play a significant role in shaping the possibilities for agency. Rather than being a constant, agency varied partially according to unique social structures in neighborhoods. The creativity and innovation of individual actors can be a powerful force, but this research demonstrates that the possibilities for agency are greater in communities with more resources and fewer barriers. Certain contextual factors, such as resources in adjacent neighborhoods, enabled the potential for agency, whereas others, such as fear of crime, diminished it. For near-northwest residents, surrounding areas contained food sources that were only marginally better than the ones closest to home. The borders of neighborhoods identified by researchers and urban planners are often blurred and traversable (although some more difficult to cross, such as the interstate highway at the western edge of the near-northwest area). It is important to see communities as embedded in wider contexts, potentially located near health resources or detriments.

Human agency was constrained by limited resources, but respondents gained some measure of control through the enactment of coping strategies. The motivations of individuals in this study ranged from concerns about cost and quality to the safety and feasibility of trips to stores. Motivations included nutritional and health concerns, but were far more complex than health behavior theories are capable of capturing.

Although this work makes important contributions to the understanding of food acquisition in low-income urban neighborhoods, it is limited by the brief nature of its look at life in these neighborhoods. Changes underway (both positive and negative), such

as depopulation and the growth of community gardens continue to alter the eating options of neighborhood residents. This research might be applicable to other urban neighborhoods, but its generalizability is limited. In addition, the heavy reliance on interviews tells us what respondents say they do rather than what they actually do. Future research will gauge the effectiveness of enabling and encouraging resident strategies on a broader scale. For example, can researchers, residents and community activists work together to create and demand better food sources (such as community gardens or non-profit grocery stores)?

More than half of the participants in this study relied on food stamps for most, if not all of their food budgets. Restrictions on using food stamps for ready-made meals limited opportunities for obtaining food from anywhere but local grocery stores. Most participants who received food stamps indicated that they rarely ate at restaurants (fast food or otherwise). For those with limited budgets and without reliable transportation, local grocery stores had a virtual monopoly on their food purchases. Hence, these stores have few incentives to improve.

However, a number of actions and policies could improve options within the two neighborhoods. Recent plans to open a non-profit, community-run grocery store on the east side of Detroit might pressure nearby for-profit sources to improve their quality (Trop, 2009). The sanitation of local stores could also be improved by augmenting health code enforcements and penalties. Community garden programs, such as the nationally renowned Garden Resource Collaborative Program on the east side, could be expanded to encourage both physical activity and increased access to fresh produce.

Better transportation is key to expanding access to food given the current

neighborhood contexts. Lower-income households are 6 to 7 times more likely to be without an automobile (Murakami & Young, 1999). Recent cuts to the city's bus system have decreased the potential for food acquisition at Eastern Market—the city's bus route that served the district has been eliminated. Specific public transportation services that cater to the needs and destinations of grocery shoppers are needed. However, the most sustainable solution to lack of access would be improving the quantity and quality of options within walking distance.

Conclusion

This research challenges academics and policymakers to learn from the strategies and actions of neighborhood residents in their social contexts. When one looks at the experiences of individual residents, it becomes apparent that scholars who emphasize structural constraints have understood food acquisition with far too much structural-determinism. Barriers that have been commonly identified: accessibility of stores, transportation and crime concerns are not impervious to human agency. The data from this research suggest avoiding both individualism and causal determinism when examining diet-related behaviors and, instead, examining agency as part of a dialogue with structure and neighborhood context. Consistent with Giddens (1979) theory of structuration, agency and structure were mutually constituted. The options of study participants were limited by the structural constraints of their neighborhoods. However, my research shows that even within these constraints they were able to exercise varying degrees of agency as they devised strategies to eat as well as possible in environments that undermined health. Agency and structural barriers must be understood as convergent forces. Future research must move beyond simply cataloging the barriers and strategies

faced by residents in low-income Detroit neighborhoods and work toward better understanding the ways in which structure and agency interact and can ultimately lead to new patterns in food acquisition.

Notes

1. This idea was suggested by Renee Anspach (personal communication, November 4, 2008).
2. I specifically avoided making contacts at or near food source settings.
3. The consequences of highway construction in Detroit's African American communities are discussed at length by Thomas Sugrue (2005).

References

- Anderson, B. E., Lyon-Callo, S. K., Monje, S. E., Boivin, M. D., & Imes, G. (2009).
Overweight and Obesity in Michigan: Surveillance Report Series 2009. Lansing,
MI: Michigan Department of Community Health, Bureau of Epidemiology,
Chronic Disease Epidemiology Section.
- Barnes, S. L. (2005). *The cost of being poor: A comparative study of life in poor urban neighborhoods in Gary, Indiana*. Albany, NY: SUNY Press.
- Becker, M. H., Maiman, L. A., Kirscht, J. P., Haefner, D. P., & Drachman, R. H. (1977).
The health belief model and prediction of dietary compliance: A field experiment.
Journal of Health and Social Behavior, 18(4), 348-366.
- Block, J. P., Scribner, R. A., & DeSalvo, K. B. (2004). Fast food, race/ethnicity, and
income: A geographic analysis. *American Journal of Preventive Medicine, 27*(3),
211-217.
- Bourdieu, P. (1977). *Outline of a theory of practice*. (R. Nice, Trans.). Cambridge, UK:
Cambridge University Press. (Original work published in 1972).
- Carney, J. A. (2001). *Black rice: The African origins of rice cultivation in the Americas*.
Cambridge, MA: Harvard University Press.
- Cheadle, A., Psaty, B. M., Curry, S., Wagner, E., Diehr, P., Koepsell, T., & Kristal, A.
(1991). Community-level comparisons between the grocery store environment
and individual dietary practices." *Preventive Medicine, 20*(2), 50-61
- Cockerham, W. C. (2005). Health and lifestyle theory and the convergence of agency and
structure. *Journal of Health and Social Behavior, 46*, 51-67.

doi:10.1177/002214650504600105

- Corbin, J., & Strauss, A. (1990). Grounded theory research: Procedures, cannons, and evaluative criteria. *Qualitative Sociology*, 13(1), 3-21. doi:10.1007/BF00988593
- Dailey, R., Schwartz, K. L., Binienda, J., Moorman, J., & Neale, A. V. (2006). Challenges in making therapeutic lifestyle changes among hypercholesterolemic African-American patients and their physicians. *Journal of the National Medical Association*, 98(12), 1895-1903.
- DeVault, M. L. (1994). *Feeding the family: The social organization of caring as gendered work*. Chicago, IL: University of Chicago Press.
- Drewnowski, A., & Darmon, N. (2005). Food choices and diet costs: An economic analysis. *The Journal of Nutrition*, 135, 900-904.
- Emerson, R. M. (2004). Working with 'key incidents'. In Seale C., Gobo, G., Gubrium, J. F., & Silverman, D. (Eds.), *Qualitative research practice* (pp. 457-472). London, UK: Sage.
- Emirbayer, M., & Mische, A. (1998). What is agency? *American Journal of Sociology*, 103(4), 962–1023. doi:10.1086/231294
- Gallagher, M. (2007). *Examining the impact of food deserts on public health in Detroit*. Chicago: Mari Gallagher Research and Consulting Group.
- Giddens, A. (1979). *Central problems in social theory: Action, structure and contradiction in social analysis*. London, UK: Macmillan.
- Glaser, B. G., & Strauss, A. (1967). *The discovery of grounded theory*. Chicago, IL: Aldine.
- Gwantley, J. L. (1980). *Drylongso: A self-portrait of Black America*. New York, NY: Random House.

- Hodgetts, D., Bolam, B., & Stephens, C. (2005). Mediation and the construction of contemporary understandings of health and lifestyle. *Journal of Health Psychology, 10*(1), 123-136. doi:10.1177/1359105305048559
- Hovell, M. F., Wahlgren, D. R., & Gehrman, C. A. (2002). The behavioral ecological model: Integrating public health and behavioral science. In DiClemente, R. J., Crosby, R. A., & Kegler, M. C., (Eds.). *Emerging theories in health promotion practice and research: Strategies for improving public health* (pp. 347-385). San Francisco, CA: Jossey-Bass.
- Katz, J. (1983). A theory of qualitative methodology: The social system of fieldwork. In R. Emerson (Ed.), *Contemporary Field Research* (pp. 127-148). Prospect Heights, IL: Waveland.
- Kelley, R. D. G. (1998). *Yo' mama's disfunkcional!: Fighting the culture wars in urban America*. Boston, MA: Beacon Press.
- Kieffer, E. C., Sinco, B. R., Rafferty, A., Spencer, M. S., Palmisano, G., Watt, E. E., & Heisler, M. (2006). Chronic disease-related behaviors and health among African Americans and Hispanics in the REACH Detroit 2010 communities, Michigan, and the United States. *Health Promotion Practice, 7*(3), 256s-264s.
Doi:10.1177/1524839906289353
- Kessler, R. C., House, J. S., Anspach, R. A., & Williams, D. R. (1995). Social Psychology and Health. In K. Cook, G. Fine, & J. House (Eds.), *Social Perspectives on Social Psychology*. New York, NY: Allen and Bacon.
- Lewis, L. B., Sloane, D. C., Nascimento, L. M., Diamant, A. L., Guinyard, J. J., Yancey, A. K., Flynn, G. (2005). African Americans' access to healthy food options in Los

- Angeles restaurants. *American Journal of Public Health*, 95(4), 668-673.
- Link, B. G., & Phelan, J. C. (1995). Social conditions as fundamental causes of disease. *Journal of Health and Social Behavior*, 36(Extra Issue), 80-94.
- McArthur, L. H., Holbert, D. & Forsythe, W. A. (2006). Compliance with food safety recommendations among university undergraduates: application of the health belief model. *Family and Consumer Sciences Research Journal*, 35(2), 160-170
- Monsivais, P., & Drewnowski, A. (2007). The rising cost of low-energy-density foods. *Journal of the American Dietetic Association*, 107(12), 2071-2076.
doi:10.1016/j.jada.2007.09.009
- Murakami, E., & Young, J. (1999). *Daily travel by persons with low income*. U.S. Department of Transportation. Retrieved from <http://ntl.bts.gov/lib/5000/5100/5141/LowInc.pdf>
- National Institutes of Health (NIH). (2008). *Diabetes and pre-diabetes statistics and facts*. Retrieved from <http://ndep.nih.gov/diabetes-facts/index.aspx>
- Rippe, J. M. (1996). Overweight and health: Communications challenges and opportunities. *American Journal of Clinical Nutrition*, 63, 470S-473S.
- Rosenstock, I. (1974). Historical origins of the health belief model. *Health Education Monographs*, 2, 328-335.
- Ross, C. E., and Mirowsky, J. (2001). Neighborhood disadvantage, disorder, and health. *Journal of Health and Social Behavior*, 42, 258-276.
- Schulz, A. J., Williams, D. R., Israel, B. A., & Lempert, L. B. (2002). Racial and spatial relations as fundamental determinants of health in Detroit. *The Millbank Quarterly*, 80(4), 677-707.

- Schulz, A. J., & Lempert, L. B. (2004). Being part of the world: Detroit women's perceptions of health and the social environment. *Journal of Contemporary Ethnography*, 33(4), 437-465. doi:10.1177/0891241604265979
- Sewell, W. H., Jr. (1992). A theory of structure: Duality, agency, and transformation. *The American Journal of Sociology*, 98(1), 1-29. doi:10.1086/229967
- Shaw Hughner, R., & Schultz Kleine, S. (2008). Variations in lay health theories: Implications for consumer health care decision making. *Qualitative Health Research*, 18(12), 1687-1703. doi:10.1177/1049732308327354
- Stack, C. (1977). *All our kin: Strategies for survival in Black community*. New York, NY: Basic Books.
- Sugrue, T. (1997). *The origins of the urban crisis: Race and inequality in postwar Detroit*. Princeton, NJ: Princeton University Press.
- Trop, J. (2009, March 7). Coalition plans two food stores in Detroit. *The Detroit News*. Retrieved from <http://www.detnews.com>
- Walcott-McQuigg, J. A. (1995). The relationship between stress and weight-control behavior in African American women. *Journal of the National Medical Association*, 87(6), 427-432.
- Williams-Forsen, P. A. (2006). *Building houses out of chicken legs: Black women, food, & power*. Chapel Hill, NC: The University of North Carolina Press.
- Woods-Giscombe, C. L. (2010). Superwoman schema: African American women's views on stress, strength, and health. *Qualitative Health Research*, 20(5), 668-683.
- Zenk S. N., Schulz A. J., Israel, B. A., James, S. A., Bao, S., & Wilson, M. L. (2005a). Neighborhood racial composition, neighborhood poverty, and the spatial

accessibility of supermarkets in metropolitan Detroit. *American Journal of Public Health*, 95(4), 660-667. doi:10.2105/AJPH.2004.042150

Zenk, S. N., Schulz, A. J., Hollis-Neely, T., Campbell, R. T., Holmes, N., Watkins, G., . . .

Odoms-Young, A. (2005b). Fruit and vegetable intake in African Americans: Income and Store Characteristics. *American Journal of Preventive Medicine*, 29(1), 1-9. doi:10.1016/j.amepre.2005.03.002

Zenk, S. N., Schulz, A. J., Hollis-Neely, T., Campbell, R. T., Holmes, N., Watkins, G., . . .

Powell, L. M. (2008). U.S. secondary schools and food outlets. *Health and Place*, 14(2), 336-346. doi:10.1016/j.healthplace.2007.08.003

Table 2.1. Self-rated health of sample

	Frequency
Excellent	4 of 47 (8.5%)
Good	27 of 47 (57.4%)
Average	10 of 47 (21.3%)
Poor	6 of 47 (12.8%)

Notes: Open-ended interview data were grouped into the above four categories. For example, “Excellent” included participants who described their health as “excellent”, “great”, and “wonderful”. “Average” included participants who described their health as “average”, “decent”, “fair”, “so-so”, and “needs improvement”.

Table 2.2. Neighborhood Population and Poverty, High School Graduation Rates

Census Tracts	Individual Poverty Rate	High School Graduation Rate
Near-Northwest		
Tract 1	41.7%	56.7%
Tract 2	40.3%	60.6%
Tract 3	30.0% ^a	65.0%
Tract 4	39.3%	64.9%
Tract 5	30.7%	66.0%
Lower-East		
Tract 1	37.4% ^b	70.9%
Tract 2	16.7%	85.0%
Tract 3	24.9%	66.8%

Notes: Data are from the 2000 census.

^a The individual poverty rates were measured in 1999, which appears to have been but a brief respite from longer-term poverty neighborhood residents have experienced. The individual poverty rates for the near-northwest tracts 3 and 5 were 43.4% and 43.2%, respectively in the 1990 census (1989 data). These two tracts do not otherwise appear to be unique compared to the other three.

^b Tract 1 in the lower-east contains a large public housing development with over 1,000 residents and higher rates of poverty.

Chapter 3

Physical Activity

Introduction

Physical activity is correlated with a number of health indicators such as obesity, diabetes and heart disease. The rates of these negative health outcomes in Detroit, Michigan exceed both the national average and the rates of surrounding areas. In fact, a recent study estimated Detroit's adult obesity rate to be 38.1% and Michigan's rate to be 30.1% (Anderson, Lyon-Callo, Monje, Boivin, & Imes, 2009). Adequate levels of physical activity, defined as doing moderate physical activities for a total of at least 30 minutes on five or more days per week or vigorous physical activities for a total of at least 20 minutes on three or more days per week, are lower in Detroit (44.9%) than in the state of Michigan overall (50.6%). Having no leisure-time physical activity was also higher in Detroit (31.9%) than in the state overall (23.1%) (Anderson, Lyon-Callo, Monje, Boivin, & Imes, 2009). Many researchers and physicians have argued that at-risk individuals need to take personal responsibility for changing their exercise habits (Dailey, Schwartz, Binienda, Moorman, & Neale, 2006; Rippe, 1996). In many Detroit neighborhoods, however, the barriers to engaging in physical activities are profound.

In this article, I explore the obstacles that residents of two low-income Detroit neighborhoods face and the strategies they devise for engaging in physical activity. In doing so, I address a number of broader sociological and public health concerns: the relationship between agency and structure, the healthfulness of neighborhoods, and the

role of resources in health behaviors. Specifically, I examine the challenges community-members in two Detroit neighborhoods face and the strategies they devise and pursue to engage in physical activity. How do residents think about options and make decisions concerning physical activity? In what ways are their perceptions, decisions, actions and routines shaped in response to barriers and resources in their neighborhoods? I approach the acquisition of physical activity as resulting from the interplay of agency and structure. This research has significant implications for understanding the exercise habits of residents in low-income neighborhoods.

Health behavior theories, many of them cognitive behavioral models, have been used to understand an array of health decisions, including physical activity. The health belief model (HBM) was one of the first models to combine cognitive behavioral theories with a rational choice approach to promote positive health behaviors (Rosenstock, 1974). According to the HBM, individuals take action to change their health behaviors on the basis of their subjective beliefs about the severity of the health condition they wish to prevent (such as obesity), their susceptibility to it, and the costs, benefits, and barriers involved in addressing it (by exercising, for example) (Kessler, House, Anspach, & Williams, 1995). Cues to action, such as interventions that look to capitalize on “teachable moments” in the lives of patients, are often necessary to facilitate this process. For example, Katz et al. (2009) argued that patients with nonspecific chest pains who received clinician advice on diet and physical activity subsequently saw “healthy lifestyles” as more beneficial and reported improved health practices in a followup interview.

This model has been criticized for its lack of attention to cultural values, social

and organizational contexts, and the influence of emotion on decision making process (Kessler, House, Anspach, & Williams, 1995). Furthermore, the model assumes that what is rational in health behavior corresponds with the evolving recommendations of Western medicine, as opposed to incorporating dimensions lying outside the boundaries of professional knowledge (Shaw Hughner & Schultz Kleine, 2008). Hillsdon, Thorogood, White and Foster (2002) found that direct advice giving, based on the HBM, was ineffective in increasing levels of physical activity. They found in randomized trials that patient-centered negotiations with caregivers (as opposed to educational intervention) led to higher levels of physical activity.

In response to some of the problems identified with the HBM, some researchers have made efforts to account for cultural influences and social networks in their attempts to change health behaviors. Hovell, Wahlgren, and Gehrman (2002) developed the behavioral ecological model (BEM) to explain how individual health behaviors are reinforced by interactions within social networks, communities and broader organizational contexts. The BEM stresses the interaction of physical and social functions in health behaviors to understand and ultimately change them. Structural factors have also become central to sociological examinations of health behaviors (Schulz, Williams, Israel, & Lempert, 2002; Ross & Mirowsky, 2001; Link & Phelan, 1995). In these studies, they are viewed as deeply entwined with resources and social environments.

Although they account for important contextual influences on health decisions, ecological and structural theories and models retain an overly deterministic view that ignores the agency of human actors. They illuminate important macro- and meso-level influences on health behaviors, but cannot account for the complexity of individual

actors. Little is known about what residents actually *do* when faced with structural constraints. As Schulz and Lempert (2004) argue in their ethnography of the ways in which Detroit neighborhoods affect health, “Understanding the nature of inequalities and the *strategies residents devise to address them* are likely to be central to our understanding of, and societal efforts to eliminate, racial disparities in health.” [emphasis added]

Agency is neither a constant nor an independent force, but rather a variable that depends partially on structural conditions and neighborhood contexts¹. As Giddens (1979) pointed out in his theory of “duality”, structure and agency are not opposing forces, but rather mutually constituted. I treat agency as partially constituted by its location vis-à-vis social structures and neighborhood contexts, but also as a powerful force in responding to and changing structures pertaining to food acquisition. In other words, I seek to understand the role and potential of agency in the context of limited neighborhood, social and economic resources. In doing so, I provide an approach that avoids the determinism of overly-structural explanations, as well as the victim-blaming and romanticism engendered by an over-emphasis on the agency and personal responsibility of individuals with limited access to physical activity resources.

Background

Structural Constraints

The built and social environments of neighborhoods can discourage (and encourage) physical activity. Researchers have explored potential mechanisms in the relationship between neighborhood environments and physical activity. Quality of sidewalks has been linked with physical activity (Hoehner, Brennan Ramirez, Elliott, Handy, & Brownson,

2005; De Bourdeaudhuij, Sallis, & Saelens, 2003). Kelly, Schootman, Baker, Barnidge, & Lemes (2007) found that sidewalks in block groups populated predominantly by African Americans were 38 times more likely to have a lot of unevenness, 15 times more likely to have many obstructions, and 12 times more likely to have physical disorder. Fewer free-for-use physical activity resources, such as parks and recreational facilities, are available in low-income and high-minority neighborhoods (Wolch, Wilson, & Fehrenbach, 2005; Estabrooks, Lee, & Gyurcsik, 2003). Low-income areas have been found 4.5 times more likely than high-income areas not to have recreational facilities (Moore, Diez Roux, Evenson, McGinn, & Brines, 2008). Residents of communities with fewer physical activity resources have lower levels of physical activity and higher proportions of overweight (Gordon-Larsen, Nelson, Page, & Popkin, 2006; Powell, Slater, Chaloupka, & Harper, 2006; Huston, Evenson, Bors, & Gizlice 2003). Better street lighting has been linked to increased physical activity (Taylor et al., 2007; Addy et al., 2004; Troped, Saunders, Pate, Reininger, & Addy, 2003). In interviews of minority women living in low-income, urban communities, participants indicated that cleaner streets promote physical activity (Taylor et al. 2007).

Threats in the social environments of low-income neighborhoods have also been shown to reduce the levels of physical activity among residents. Residents in low-income communities are exposed to disproportionate levels of crime, unattended dogs and neighbors they perceive as untrustworthy (Wilson, Kirtland, Ainsworth, & Addy, 2004). Perceptions of neighborhood safety have been clearly associated with the willingness to engage in outdoor physical activity (Miles & Panton 2006; Eyler, Brownson, Bacak, & Housemann, 2003; Nies, Vollman, & Cook, 1999). Fear of being victimized by crime has

been shown to reduce neighborhood walking (Ross 1993). Residents have also cited unattended dogs as a barrier to physical activity (Sallis, King, Sirard, & Albright, 2007; Martinez, Arredondo, Perez, & Baquero, 2009). Another barrier that residents in low-income neighborhoods have mentioned is lack of exercise companions (Miles & Panton 2006; Nies, Vollman, & Cook, 1999). Negative perceptions of the trustworthiness or neighbors (Wen, Kandula, & Lauderdale, 2007) and the fear that passers-by would not stop to help if needed (Miles & Panton 2006) have also been cited as impediments. Conversely, lower rates of decline in walking activity have been found among older adults living in urban areas perceived as safe (Li, Fisher, & Brownson, 2005).

Schulz, Williams, Israel, & Lempert (2002) argued that segregation and concentrated poverty are fundamental factors leading to disparate health outcomes through proximate factors, including low-levels of physical activity. Municipal public spending on recreational spaces in low-income communities of color has lagged behind spending in more affluent areas (Wolch, Wilson, & Fehrenbach, 2005). Handy, Boarnet, Ewing, & Killingsworth (2002) contended that in addition to addressing issues in the social environment, urban land use and design must be reorganized to encourage walking and bicycling. For example, residential density and street connectivity have been linked to higher levels of physical activity among residents (Atkinson, Sallis, Saelens, Cain, & Black, 2005).

Social networks have been associated with physical activity resources. The theory of informal reciprocity (Godbout, 2003), which postulates that resources are often procured outside of markets or state interventions, can help explain the availability of exercise equipment, transportation to physical activities and other resources. Researchers

have also linked family structures to engagement in physical activity. Sole-supporting parents who attend college are less likely to engage in physical activity (Sabourin & Irwin, 2008). Others have argued that families can promote physical activity (Anderson, Wojcik, Winett, & Williams, 2010; Valach, Young, & Lynam, 1996). In general, social networks have been found to influence health behaviors, such as exercising, associated with weight-gain (Christakis & Fowler, 2007).

The Limitations of Structural Constraints – Culture, Change and Agency

An exclusive focus on macro- and meso- level influences on health behaviors risks overlooking an important component in the process of physical activity acquisition: agency. As Giddens (1979) pointed out in his theory of “duality”, structure and agency are not opposing forces, but rather mutually constituted. Rather than constraining agency, Giddens saw structure as enabling it. He argued that social actors are knowledgeable and capable of acting in creative and innovative ways that can become widespread, transforming structures. Sewell (1992) developed the idea of dynamic structures by pointing out that social actors can draw from a multiplicity of resources, cultural schemas, perceptions and actions to transform structures. For instance, concerns including fitness as well as crime victimization have meshed with entrepreneurial spirits and skills to facilitate the proliferation of martial arts in many cities, including Detroit (Terry, 2006; Prashad, 2003).

Research emphasizing structural factors also tends to overlook the role of culture. Bourdieu's (1977) conception of habitus might help to fill this gap and explain the development and reproduction of dispositions regarding physical activity. Habitus can be viewed as a set of tacit, taken-for-granted practices that symbolically mark one's

membership in a social group. When applied to physical activity, it relates to tastes in physical activities, bodily comportment, and the cultivation of certain body types.

Bourdieu considered the wealth, cultural capital, education and obsession with physical appearance of elites as critical factors facilitating leisure-time physical activities.

Specifically, sports such as sailing, skiing, golf, tennis and horseback riding require early socialization, specific forms of dress and behavior, and the time and freedom to pursue these activities. Beyond the habitus, the resources that individuals and their communities have can enable or constrain these practices. Changes in neighborhood environments, such as the deterioration of inner-city parks and baseball facilities, shape the fields of interaction that social actors engage. On the other hand, it is important to consider the ability of actors to critically evaluate their choices and imagine different possibilities in their fields of interaction.

Although social actors have the capacity to pursue numerous responses to the challenges of acquiring food, human agency is not limitless. In other words, it is never completely independent of the influence of structure and context in the Kantian sense of transcendental free will (Emirbayer & Mische, 1998). Bourdieu (1977) detailed the ways in which external structures are internalized along class lines, leading to the reproduction of thought and behavioral processes. In his discussion of “health lifestyles”, Cockerham (2004) argued that health behaviors in practice feedback into the habitus, and that normative social contexts reinforce their approval or rejection. He argued that structure, at minimum, outweighs the potential of agency and, in the extreme, overwhelms it. Bourdieu and Cockerham acknowledged autonomy and variation in health behaviors, but they privileged the role of structure, resources and social contexts in shaping agency and

reproducing constraints on it. Although they pointed out serious flaws in understandings of health decisions that overemphasize personal responsibility, their frameworks cannot explain innovative and creative responses to structural constraints and emerging patterns that revise the contexts in which choices are made.

Variation within communities. Critics have pointed out that the diversity of perspectives and experiences often goes unreported in studies of urban communities (Kelley, 1998; Gwantley, 1975). The influence that a neighborhood exerts on individuals and the responses of individual actors vary tremendously—not only according to factors like access to physical activity resources, class and age, but by things much more difficult to measure, such as creativity, innovation, emotions and culture.

Overemphasizing agency. An exclusive focus on agency risks downplaying the obstacles presented by structural conditions. Stack (1977) highlighted the agency, resourcefulness and resilience of families facing persistent poverty. She found that strong, supportive kin networks enabled actors to pursue innovative solutions to physical activity-related needs such as child care and transportation. But her work has been criticized for romanticizing life in impoverished neighborhoods. An overemphasis on agency might also engender calls for personal responsibility. Hodgetts, Bolam and Stephens (2005) found that media messages cultivate a view of health as a personal obligation or achievement, while ignoring structural disadvantages that impact choices about physical activity. Hence, an approach that ignores broader contextual forces can lead to romanticism or an overemphasis on personal responsibility. An exclusively structural approach can be causally deterministic, ignoring agency and the diversity of perspectives and experiences. By examining the interplay between agency and structure, I

attempt to provide a more complete picture of physical activity acquisition in two Detroit neighborhoods.

Methods

To answer the research questions, I used 47 semistructured, in-depth interviews from residents in two Detroit communities. Participants in this study came from two neighborhoods: one is on the near-northwest side of the city, and the other is located on the lower-east side.

Interviews

I conducted the interviews from from June 2008 through July 2009 and designed them to elicit detailed information about individual lives, typical physical activities, exercise resources and neighborhood experiences. They were face-to-face, open-ended and semistructured. At the beginning of interviews, I attempted to develop rapport and get to know participants. I then asked about their neighborhoods, physical activities and exercise resources. The interview prompts were designed to elicit detailed discussions of perceptions and processes in physical activity acquisition. I also probed for follow-up responses to get at their unique outlooks, circumstances and considerations in arriving at decisions and actions.

I spoke to a sample of 25 interviewees from the near-northwest neighborhood and 22 interviewees from the lower-east neighborhood. Participants ranged in age from 18-56. There were 22 men and 25 women. All participants identified as African American. Of the 47 residents I spoke with, four owned their own homes, 22 were employed at the time of the interview and 35 had completed high school. The interview times ranged from 28 minutes to two hours and 45 minutes. The median length was 49 minutes and the

mean length was 57 minutes. Whenever possible, I would conduct informal ethnographic observation to supplement the interviews. I conducted observations with 21 of the 47 participants, often before or after interviews were conducted.

Participants were asked to rate their health and to describe any health issues they had experienced. Six participants identified chronic, debilitating health issues or rated their overall health as poor. The remainder (41 out of 47) rated their health in the range between average and excellent (see Table 3.1). Although I did not ask respondents to disclose their height or weight, 18 out of 47 mentioned that they considered themselves overweight or were trying to lose weight. It is likely, however, that more than half of the individuals I spoke with would be labeled by medical professions as overweight or obese.

Recruitment

I contacted potential participants in a variety of ways. I greeted and approached people sitting on their porches, waiting at bus stops, and otherwise living their lives². 12 participants introduced me to other individuals who participated in the study. Hence, the recruitment was a combination of non-random and snowball approaches. Interviewees chose to be interviewed at their homes, local public spaces or an office in the University of Michigan's Detroit Center. Participants had to be at least 18 years of age or older and living in the neighborhoods defined in the settings section below.

Early in the data collection process, I walked or biked through residential areas, attempting to introduce myself to potential participants. When I found people willing to chat, I described the study and offered them a flier describing the research. The flier indicated that participants would be compensated with 15 dollars. It quickly became apparent that because of the incentive, lower-income residents were more likely to

participate. To interview a greater share of individuals living above the poverty line (which was more than half of the population in each neighborhood, according to the Census), I recalibrated the locations of my recruitment efforts. I targeted public spaces commonly used by higher-income residents. In the near-northwest, I frequently stood outside of the neighborhood post office. In the lower-east, I recruited during late afternoons and early evenings, in an attempt to meet people arriving home from work. These strategies eventually yielded participants from a fairly representative mix of economic backgrounds. Similar efforts were not necessary to ensure that the sample reflected the gender, age, and family structure distributions of the neighborhoods.

Ethical Considerations. I obtained ethical approval in accordance with the requirements of the Institutional Review Board at the University of Michigan. For the sake of anonymity, I changed the names of participants, stores and streets to pseudonyms. I provided consent forms to participants and reviewed their content, verifying that their confidentiality would be protected, they could decline to answer any question and could withdraw from the study at any time. I was aware of my positions of privilege throughout the data collection. As a White, middle-class, male, academic, there were awkward moments in my attempts to develop rapport with participants. Neighborhood residents occasionally eyed me with suspicion or ignored me altogether. I was conscious of the implications of being an outsider to their communities, but as a Detroit native and resident, I believed that I could empathize with many of their concerns. I also found that I could develop strong relationships with participants by demonstrating familiarity with the neighborhoods and local food sources, humble dedication to my research and sincere interest in their lives.

The Settings

Near-Northwest. The near-northwest neighborhood is comprised of five contiguous census tracts, all of which contain similar building-types and rates of poverty. The side streets are a mix of duplexes, apartments and single-family homes. Bordering and bisecting the neighborhood are mainly commercial thoroughfares. On the western edge of the neighborhood, an interstate highway forms a very difficult to traverse physical barrier. Before its construction, 15 streets at the western edge of the neighborhood went from the neighborhood into communities to the west. Today, 13 of those streets now end at the interstate. Only two streets and two pedestrian bridges are traversable along the 1.96 mile stretch³.

Census tract data (see Table 3.2) describe high levels of poverty among near-northwest residents (approximately 40%), as well as low levels of education (approximately 60% have graduated high school). The neighborhood's population is declining. Between 1990 and 2000, Census data showed 3,451 fewer people in the neighborhood (19.5%). The population today is almost exclusively African American (approximately 98%). Although the population has declined, the neighborhood remains a significant part of Detroit. Many blocks are still filled with sturdy homes and occupied by economically diverse residents (more than 60 percent of the neighborhood's residents are above the poverty line). The 2000 Census estimated 14,286 residents living in the five tracts. Still, a number of neglected apartments and houses have been demolished and cleared while others await renovation or demolition. "Urban prairies" of tall grass, weeds, wildflowers and trees grow unchecked on many lots.

Lower-East. The lower-east neighborhood is comprised of three contiguous

Census tracts and has a population of 7,302 residents (See Table 3.2). It has slightly lower (but still above national and state average) poverty rates compared to the near-northwest neighborhood. It contains newer buildings, better maintained parks and infrastructure and one of the city's largest recreation centers. In addition, lower-east residents can take advantage of resources in nearby parts of Detroit. These resources include proximity to Downtown, the city's recently redeveloped riverfront parks and the Dequindre Cut (a park linking the riverfront to the nearby Eastern Market farmer's and wholesaler's market). Commerce is limited to one shopping area at the center of the neighborhood.

Almost every building in the lower-east was built in the past half century, because of aggressive urban renewal projects in and around the area after World War II (Sugrue 2005). Today, the neighborhood is mostly home to African Americans (approximately 95%). Its apartments, townhouses, condominiums and parks distinguish it from the near-northwest neighborhood. There are virtually no boarded up buildings or “urban prairies” amid the housing developments. Still, poverty remains a significant problem. A nearby soup kitchen serves many local residents. Two large public housing developments have been constructed in the neighborhood in recent decades. The choice of these communities offers a unique opportunity to compare the impacts of two distinct neighborhood environments on the physical activities of individuals in similar economic circumstances.

Analysis

Interviews were recorded and transcribed verbatim. I supplemented interview transcripts with fieldnotes taken during and after interviews and informal observations. I analyzed data using a grounded theory approach (Glaser & Strauss, 1967; Corbin & Strauss, 1990). Using NVivo 7 data analysis software, I coded all of the interview transcripts and

fieldnotes to discern relevant themes and then developed themes into memos. I continuously refined theoretical ideas using retroduction, moving from interview data analysis to conceptual reframing (Emerson, 2004; Katz, 1983). As theoretical concerns and conceptual categories emerged, I sought new forms of relevant data.

Results

Participants discussed numerous individual-, neighborhood-level barriers to getting exercise. However, many employed strategies to engage in physical activity. Still, a majority of interviewees felt that they did not get enough exercise (29 of 47). Eleven participants had access to exercise equipment at home. Seven reported using a friend or family member's workout equipment. Of the participants without any access to home equipment, the vast majority (27 of 29) would have liked to own it.

Structural Constraints

Participants discussed a number of neighborhood-level disincentives to exercise: dissatisfaction with local recreation facilities (24 of 47) and parks (25 of 47), lack of access to equipment (24 of 47), stray dogs (33 of 47) and concerns for personal safety (29 of 47). Infrastructural problems were seen as significant barriers to physical activity, such as the pavement of streets and sidewalks, street lighting, parks and recreational facilities.

Sidewalks and streets. For David, a 31 year old living in the near-northwest, uneven street pavement limited his participation in basketball:

The only time I play basketball around here is if they pull out the pullaway [basketball hoop]. . . . I'll probably just shoot around because I don't like—you know the street's messed up. It ain't leveled off and it'll mess your knees up.

David's concerns about uneven street pavement harming his knees precluded his engagement in more rigorous game competition. Sharice, an 18 year old female living in the near-northwest, discussed the dangers of walking on problematic sidewalks

Dan: How are the sidewalks around here?

Sharice: Uh, bumpy and crinkled and you can fall anytime. . . . I walk in the streets to avoid them so I won't fall and my baby won't fall.

Indeed, many of the sidewalks in the near-northwest were riddled with obstructions, such as elevated slabs of cracked pavement. Because of the severity of problems with sidewalks, Sharice felt that she or her infant son would trip and fall. As a result, she felt safer walking in the street with him. Other near-northwest residents indicated feeling forced to walk in the street because of the condition of sidewalks. Lower-east residents were generally satisfied with the conditions of the sidewalks and streets, with the exception of sidewalks in adjacent neighborhoods and those located inside certain residential complexes. For example, Michelle, a 40 year old female living in the lower-east, was attempting to start a bicycling routine, but felt discouraged by the condition of the pavement in the park closest her apartment complex:

Dan: How would you describe the sidewalks around here?

Michelle: Horrible. . . . They're bad.

Dan: Inside of Orchard Meadows?

Michelle: Mmm-hmm. . . . Inside, surrounding—because there's a park right behind where I live, where I like to ride through, and it's—oh man.

Dan: Does that make it harder to bike?

Michelle: Yeah, it's bad.

Michelle had already discussed feeling self-conscious about riding a bicycle (she claimed to appear “hilarious” while riding). The infrastructural conditions near her home further complicated her efforts to engage in bicycling.

Parks and recreation facilities. Almost all respondents were aware of nearby recreational centers, but felt they were inaccessible or impractical for a number of reasons, such as cost, clientèle, safety concerns or lack of child care. Sheila, a 40 year old cafeteria worker living in the lower-east, wanted to pursue activities at the local recreation center, but felt unable because she could not leave her young son alone:

They have water aerobics. I was interested in that. That's 40 dollars for, uh, six weeks. I would've like to have done that. It's on Tuesdays and Thursdays. But, what am I gonna do with my son while I'm at, uh—they said no one to babysit. And see by the center being right here and me not having a car, if I could take him up there with me and they had a little day care, something that he could go to while I do that, it'd be different. I don't have nothing to do with him while I go to aerobics—you know, this program. . . So, I just forgot about that. I just said, “Forget it.”

Harriet, a 24 year old custodial worker living in the near-northwest, described her reluctance to use the nearby parks and recreation facilities for fear of other users: “You know, these young people make it hard, nowadays. You know, you'll be too scared that somebody's going to get <laughs> silly for no reason. . . . They get to fighting and all

that.”

Harriet's concerns were typical of the young adult and middle-aged residents with whom I spoke. Many felt that recreation centers did not cater to their age-group, only to children, adolescents, and older adults.

Crime concerns. Kiara, a 27 year old who recently moved to the near-northwest area with her boyfriend and three children, explained how safety concerns prevent her from pursuing physical activity outdoors:

Dan: Do you ever exercise outside?

Kiara: No, I do not move around this area that much.

Dan: Why not?

Kiara: It's just not safe. It's just—I mean I could walk that park [across the street] but it's been so much commotion going on and shooting and things. I—we really stay in our box.

Her aversion to outdoor physical activity manifested not only from personal preferences. Indeed, Kiara indicated that she would exercise outdoors if she lived in a safer area. Additionally, because of her concerns about the safety, Kiara was reluctant to allow her children to venture far away from the home. Although Vincent, a lower-east resident in his early 50s, felt comfortable walking near his home, he described his apprehension leaving his immediate community for areas to the north:

Once you cross Broad Street, uh, you just look and just from sight you can see the difference—although they are started to build some new, uh, condominiums and

homes on the other side. But it's a vast difference—a lot vacant lots, a lot of empty homes, a lot of abandoned homes. . . . Uh, once you get to Central Avenue, I mean, you start seeing some of the street people up there, some of the drug dealers, some of the prostitutes.

Out of necessity, neither Vincent nor Kiara completely avoided the areas they perceived as dangerous, but safety concerns hampered their willingness to walk in certain areas. Concern about safety did not relate exclusively to crime. Paul, a 54 year old near-northwest resident, described a number of threats to health in his neighborhood:

There's a lot of dogs around, you know, people drinking and standing on the corners. It's unsafe—just unsafe living conditions. You know, health-wise, you've got people running around with diseases, you know, you got the prostitutes. . . . You know, any given day, it's broken glass and needles and stuff in the street.

Paul's concerns involved a constellation of health threats in his neighborhood. He believed that he and his family would be exposed to an unsafe environment when they go outdoors.

Strategies

Despite the barriers described above, many participants discussed strategies to create opportunities for engaging in physical activity. These strategies included leaving the neighborhood to pursue physical activity opportunities, sharing equipment or other exercise-enabling resources, developing home exercise routines, and cognitive mapping of threats in order to avoid unsafe areas while still engaging in outdoor activities. Others

obtained significant amounts of physical activity through daily necessities, such as walking, working and childcare.

Leaving the neighborhood. Many residents pursued opportunities for physical activity beyond their neighborhoods. Terry, a 30 year old male living in the near-northwest, discussed frequently exercising with his two children. Local locations for physical activity were usually unavailable, leading him to frequently leave Detroit for parks in other cities:

I go to the [local] park when the grass is cut. . . . You know, other than that, we go outside the city, you know, to another park. . . . We'll go to—find another neighborhood where the park's got the grass cut or whatever. We'll go there.

Because the landscaping and equipment at parks in his near-northwest neighborhood were poorly maintained, he frequently pursued this strategy with his family to ensure that he and his children had opportunities to exercise. Terry's ownership of an automobile made leaving the neighborhood a more viable strategy.

Nolan, a 40 year old lower-east resident without an automobile, played basketball regularly with a group of friends. He described the efforts involved in traveling to basketball games:

Dan: Sometimes you go all the way up to Northtown to play basketball?

Nolan: Yeah, I travel to play basketball! <Laughter>

Dan: Do you take the bus?

Nolan: Yeah. Or sometimes some of the guys I play basketball with will come and pick up and take five people.

By obtaining transportation from others and, when necessary, taking buses, Nolan was able to regularly participate in high-intensity exercise with a social network of athletes. Although his love for basketball and motivation to remain physically fit were critical components leading to his actions, strategies to overcome transportation barriers were also necessary.

Issac, a 22 year old living in the near northwest neighborhood, pursued more moderate physical activity outside of his neighborhood. He regularly met with a companion who lived in another neighborhood on the other side of the city for walks in city's recently developed riverfront park: "I catch the bus Downtown, walk up and down the Riverwalk, back and forth."

Similar to Nolan, the use of public transportation as well as a supportive social network encouraged Issac's walking.

Sharing equipment. In addition to sharing transportation to access far-off locations, exercise equipment was another resource that participants discussed accessing through their social networks. David used weights belonging to friends:

I do my push ups, sit ups, and all that stuff here in the house. I lift the weights [at a friend's house] down the street. . . . My [former friend] had weights. . . but [we] fell out. But he had everything: boxing bags, Olympic weights, I mean, curl bars, everything for the legs.

Although David's ability to take advantage of weightlifting equipment available in his

social network had been diminished, he could still rely on another friend. Jessica, a 26 year old living in the lower-east, discussed using equipment at her mother's house:

See, when I stayed with her, I would walk on the treadmill. She's got weight lifting equipment. I'd do that for about 30 minutes. . . . I'd walk on the treadmill for 15 minutes and then do some weight lifting for 15.

Jessica indicated that, due to her lack of personal transportation, she had not been able to use the equipment as often since she moved several miles away. However, accessing public transportation and her mother's exercise equipment remained an occasional strategy to engage in physical activity.

Community recreation centers. Although many were dissatisfied with or unaware of local recreation centers, a number of respondents found them to be invaluable resources. Tina, a 43 year old woman living in the lower-east, spoke of her utilization of the local facility:

“I go swimming there. I do a lot of walking there. . . . In the summer, I did a lot of bike riding. And now that it's getting colder, I go to the center more often. . . . They'll let us use their equipment, their weights, if you need a basketball, if you need weights or a mat or whatever, they have that kind of thing there. . . . There's not many places around here like that you can [use].”

Tina's used the recreation center in her neighborhood extensively as a response to otherwise limited physical activity resources. Terry also felt the local recreation center was his best option for exercising: “You ain't got to pay for nothing to come in there. . . . I

just, you know, walk in, use their equipment or whatever and that's that.”

Exercising at home. Residents of both neighborhoods who had safety concerns devised ways exercise indoors. Kiara, who recently moved to the near-northwest from a neighborhood she considered much safer, discussed her struggles obtaining physical activity in a neighborhood she considered dangerous:

I've been thinking about [exercising]. I've been saying, “That's what I'm gonna do.” I started some diet pills, but I'll just take it and consider the [activities in the] house as my exercise for the day. I'll get up and just walk this house. I just won't sit still.

Kiara responded to the challenge of living in an unsafe neighborhood by pacing her one-story flat from front to back. Similarly, Nolan indicated that he exercises frequently during the day by jogging, going to the gym and playing basketball, but feels more comfortable exercising indoors at night:

If I want to exercise at night, I'll do some push ups. I'll stay in and do some push ups. I don't ever go jogging at night. I mean, the little young guys around that way, they just kind of act stupid. I feel like I don't want to be a casualty for someone else's mistake.

Participants responded to the challenge of inclement weather by exercising indoors. For Suzanne, a 38 year old female living in the near-northwest, television exercise programming served as a viable alternative: “I ain't gonna go out there.

<laughs>. . . . At least, like, with cable, they have the exercise network going there, so I'll pick it up from there.” The lack of necessary equipment and flexible scheduling of this “on demand” feature also contributed to its viability as a strategy.

Cognitive mapping. Unsafe neighborhoods posed a formidable barrier for residents attempting to exercise. Some responded to this challenge by developing cognitive maps identifying areas that were safe and dangerous areas to avoid. Samantha, a near-northwest resident in her early 40s without an automobile, felt unsafe walking in certain parts of her neighborhood. She cited the threat of a gang on the blocks immediately to the north of her apartment building. However, she insisted that it did not prevent her overall pursuit of walking in the neighborhood: “I don’t go that way on Frazier Avenue. Now, I will go up to, like, towards Tremont Street.”

Although Samantha's conception of safety in her neighborhood limits what she perceived as accessible streets and areas, it may have actually led her to more walking, as alternative, roundabout routes required longer travel distances. Her engagement in cognitive mapping of safe and unsafe walking spaces was not unique. David discussed avoiding areas to the east because of seeing stray dogs nearby: “It’s a lot of stray dogs [to the east]. And they—if they’re hungry—they will try to eat.”

Neighborhood Differences

There were several key differences between the physical and social environments of the near-northwest and lower-east neighborhoods, such as infrastructure, resources, concerns about personal safety and the environments of adjacent communities. These

differences shaped the potency and forms of the agency of residents. Because of the variation between the two neighborhood contexts, challenges were met with different opportunities for strategic responses.

Barriers were not randomly distributed between the two neighborhoods (see Table 3.3). Higher levels of physical and social disorder, such as abandoned buildings, uneven sidewalks and vacant lots, were found in the near-northwest. Respondents in the near-northwest were more likely than those in the lower-east to express concerns about personal safety. Exposure to stray dogs was more frequent in the near-northwest. Residents of the near-northwest were also more likely to be dissatisfied with both local parks and recreation facilities. Parks in the near-northwest were more poorly maintained, whereas more park spaces were available in the lower-east. Additionally, parks in areas adjacent to the lower-east included Belle Isle (a large, public, island park on the Detroit River), Lafayette Central Park (a greenway connecting many communities throughout the lower-east), and newer parks, such as the Detroit Riverwalk, (a recently developed riverfront park along several miles of the Detroit River), and the Dequindre Cut Greenway (a former railroad converted into a biking and walking path).

The lower-east's proximity to Downtown Detroit, Midtown Detroit and other attractions provided a plethora of destinations within a 3-mile radius. These destinations encouraged moderate- or lengthy-walks or bicycling as a strategy for lower-east residents seeking physical activity. Reggie, a 42 year old who spent several years in Manhattan but now lives in the lower-east, discussed his willingness to walk to a variety of locations: “This being the Motor City, nobody’s walking nowhere in Detroit. But, like, me with my New York mindset, I’ll walk to Herman Keifer, I’ll walk to Wayne State, um, I’ll walk to

Belle Isle.”

Although Reggie believed that he lacked the social support to exercise with his friends, he felt comfortable walking to locations in adjacent sections of the city. A better maintained and more accessible neighborhood environment with attractive destinations in surrounding areas helped encourage his lengthy walks as a strategy for physical activity.

In some cases, living with lower levels of concern about crime in the lower-east enabled the pursuit of more physical activity: June, a 40 year old resident of the lower-east, felt fortunate to have the opportunity to walk in the neighborhood having previously lived in areas she considered more dangerous: “When I walk [out of my complex], I count my blessings that I was able to be here as long as I have, because people don’t realize how hard it is to have a nice place.” For residents concerned about crime, perceptions of their social environments sometimes led to adaptive strategies, including cognitive mapping and an increased reliance on indoor physical activities.

Gender and Families

Gender was strongly related to the amount and types of physical activities pursued (see Table 3.4). Women were more likely than men to state that they felt they did not get enough exercise. Of the respondents who were primary caregivers of at least one child, women were much more likely than men to perceive these responsibilities affecting their level of physical activity. Additionally, of the participants who indicated getting physical activity from household chores on a regular basis, the vast majority were women. These results suggest that household work and family care considerations strongly related to gender

Gender was also related to different levels and types of concerns about safety. Women were more likely than men to express concerns about safety in their neighborhood. Concerns about being outside at night were also more common in women, although several men had similar reservations. Incidents of public harassment, sexual assault, rape, and abduction continue to be perpetrated mostly by men upon women in Detroit and nationwide (Gardner, 1995; Bureau of Justice Statistics, 2010). Lack of adequate street lighting and police presence, exacerbated these concerns. As a response, many women in this study tried to avoid being outside in their neighborhoods at night and in low-traffic areas at any time. Public forms of physical activity were much more difficult to engage in for women who expressed concerns about personal safety in their neighborhoods. When I asked Jessica if she'd had any experiences that made her fear for her safety, she told me about the following event:

Well, the other night, I was walking through the courtyard and some guys were sitting. And a young man walked up and he was looking [straight at me]. I guess he couldn't see what was directly in front of him. So, he's looking, and they asked him what he's looking at. I didn't stick around to see the end results of that.

Jessica's experience was an example of public harassment that could have quickly escalated. She indicated that she generally avoided going outside at night.

Discussion

Although statistics show residents of Detroit worse off on most indicators of physical activity and health, many study participants made complex efforts to cope with injurious neighborhood environments. They faced challenges that many academics, policy makers

and suburban residents do not confront in their everyday experiences. Far from being passive victims of these obstacles, many residents devised elaborate strategies to engage in physical activity. Strategies included leaving the neighborhood to pursue physical activity, sharing equipment and other resources, exercising at home and cognitive mapping of threats to avoid unsafe areas. It is important not to underestimate the creativity and innovation of individual actors when pursuing physical activity. Still, structural constraints remained significant and often difficult or impossible to overcome. Similar to the position of Bernard et al. (2007), I found focusing exclusively on either individual or neighborhood characteristics in explaining physical activity behaviors to be an oversimplified approach. The dialectic between the characteristics of individuals and the contexts of neighborhoods must be considered.

Neighborhood contexts played a significant role in shaping the possibilities for agency. Rather than being a constant, agency varied, in part, according to unique social structures in neighborhoods. The creativity and innovation of individual actors can be a powerful force, but this research demonstrates that the possibilities for agency are greater in communities with more resources and fewer barriers. Certain contextual factors, such as fear of crime and stray dogs, diminished the potential for agency, whereas others, such as infrastructure and resources in adjacent areas, enabled it.

The borders of neighborhoods identified by researchers and urban planners are often blurred and traversable (although some are more difficult to cross, such as the interstate highway at the western edge of the near-northwest area). It is important to see communities as embedded in wider contexts, potentially located near physical activity resources or hindrances. This is especially true for activities such as walking and

bicycling, which often involve travel into nearby neighborhoods.

Policy Implications

A number of policy actions could improve the physical activity opportunities inside both neighborhoods. This research supports previous findings that individuals without home exercise equipment have lower levels of physical activity (Kerr, Norman, Sallis, & Patrick, 2008; Atkinson, Sallis, Saelens, Cain, & Black, 2005; Sallis, Johnson, Calfas, Caparosa, & Nichols 1997). A program designed to connect low-income individuals with home exercise equipment should be designed and implemented. Even without access to equipment, indoor activities such as exercise yoga could be promoted through the active dissemination of knowledge and empowerment of neighborhood residents to become yogis. Community gardening programs, such as the nationally renowned Garden Resource Collaborative Program on the east side, could be expanded to encourage both physical activity and increased access to fresh produce.

Limitations

Although this work makes important contributions to the understanding of physical activity acquisition in low-income urban neighborhoods, it is limited by the brief nature of its look at life in these neighborhoods. Changes underway (both positive and negative), such as the deterioration of the built environment in the near-northwest and the addition of a new parks and sidewalks in and around the lower-east, continue to alter the exercise options of neighborhood residents. This research might be applicable to other urban neighborhoods, but its generalizability is limited. In addition, the heavy reliance on interviews tells us what respondents say they do rather than what they actually do. Future research will gauge the effectiveness of enabling and encouraging resident strategies on a

broader scale. For example, can researchers, residents and community activists work together to create and demand investments in parks, recreation facilities and other physical activity resources?

In addition, disentangling compositional and contextual effects cannot be done from a strictly empirical perspective (Macintyre & Ellaway, 2003). Conceptualizations of the dialectic between individuals and neighborhoods, such as the collective lifestyle heuristic (Frohlich, Corin, & Potvin, 2001; Williams, 2003) and the health lifestyle theory (Cockerham, 2004) are necessary to better understand the processes behind multifarious experiences of individuals in a community.

Conclusion

This research challenges academics and policymakers to learn from the strategies and actions of neighborhood residents in their social contexts. When one looks at the experiences of individual residents, it becomes apparent that scholars have understood physical activity acquisition with far too much structural-determinism. Barriers that have been commonly identified: lack of facilities, poor infrastructure and exposure to threats to safety are not impervious to human agency. Overall, the potential to pursue physical activity strategies varies, in part, according to neighborhood context. I find that accounting for both agency and structural context aides in understanding physical activity behaviors. The importance of both agency and community contexts suggests a theoretical framework that avoids both individualism and causal determinism and, instead, examining agency as part of a dialogue with structure and neighborhood context. Consistent with Giddens (1979) theory of structuration, agency and structure were mutually constituted. The options of study participants were limited by the structural

constraints of their neighborhoods. However, my research shows that even within these constraints they were able to exercise varying degrees of agency as they devised strategies to get physical activity to the best of their abilities in environments that undermined health. Agency and structural barriers must be understood as convergent forces. Future research must move beyond simply cataloging the barriers and strategies faced by residents in low-income Detroit neighborhoods and work toward better understanding the ways in which structure and agency interact and can ultimately leading to new patterns in physical activity acquisition.

Notes

1. This idea was suggested by Renee Anspach (personal communication, November 4, 2008).
2. I specifically avoiding making contacts at or near physical activity resources such as parks and recreational facilities.
3. The consequences of highway construction in Detroit's African American communities are discussed at length by Thomas Sugrue (2005).

References

- Addy, C. L., Wilson, D. K., Kirtland, K. A., Ainsworth, B. E., Sharpe, P., & Kimsey, D. (2004). Associations of perceived social and physical environmental supports with physical activity and walking behavior. *American Journal of Public Health* 94(3), 440-443.
- Anderson, B. E., Lyon-Callo, S. K., Monje, S. E., Boivin, M. D., & Imes, G. (2009). Overweight and Obesity in Michigan: Surveillance Report Series 2009. Lansing, MI: Michigan Department of Community Health, Bureau of Epidemiology, Chronic Disease Epidemiology Section.
- Anderson, E. S., Wojcik, J. R., Winett, R. A., & Williams, D. M. (2010). Social cognitive mediators of change in a group randomized nutrition and physical activity intervention: Social support, self-efficacy, outcome expectations and self-regulation in the guide-to-health trial. *Journal of Health Psychology*, 15(1), 21-32.
- Atkinson, J. L., Sallis, J. F., Saelens, B. E., Cain, K. L., & Black, J. B. (2005). The association of neighborhood design and recreational environment with physical activity. *American Journal of Health Promotion*, 19(4), 304-309.
- Bernard, P., Charafeddine, R., Frohlich, K. L., Daniel, M., Kestens, Y., & Potvin, L. (2007). Health inequalities and place: A theoretical conception of neighborhood. *Social Science & Medicine*, 65(9), 1839-1852.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Trans. Richard Nice. Cambridge and New York: Cambridge University Press.
- Bureau of Justice Statistics (BJS). (2010). *National crime victimization survey*. Retrieved from: <http://bjs.ojp.usdoj.gov/#ncvs>.

- Christakis, N. A., & Fowler, J. H. (2007). The spread of obesity in a large social network over 32 years. *New England Journal of Medicine*, 357(4), 370-379.
- Cockerham, W. C. (2005). Health and lifestyle theory and the convergence of agency and astructure. *Journal of Health and Social Behavior*, 46, 51-67.
- Corbin, J., & Strauss, A. (1990). Grounded theory research: Procedures, cannons, and evaluative criteria. *Qualitative Sociology*, 13(1), 3-21.
- Dailey, R., Schwartz, K. L., Binienda, J., Moorman, J., & Neale, A. V. (2006). Challenges in making therapeutic lifestyle changes among hypercholesterolemic African-American patients and their physicians. *Journal of the National Medical Association*, 98(12), 1895-1903.
- De Bourdeaudhuij, I., Sallis, J. F., & Saelens, B. E. (2003). Environmental correlates of physical activity in a sample of Belgian adults. *American Journal of Health Promotion*, 18(1), 83-92.
- Emerson, R. M. (2004). Working with 'key incidents'. In Seale C., Gobo, G., Gubrium, J. F., & Silverman, D. (Eds.), *Qualitative Research Practice* (pp. 457-472). London: Sage.
- Emirbayer, M., & Mische, A. (1998). What is agency? *American Journal of Sociology*, 103(4), 962–1023.
- Estabrooks, P. A., Lee, R. E., & Gyurcsik, N. C. (2003). Resources for physical activity participation: Does availability and accessibility differ by neighborhood socioeconomic status? *Annals of Behavioral Medicine* 25(2), 100-104.
- Eyler, A. A., Brownson, R. C., Bacak, S. J., & Housemann, R. A. (2003). The epidemiology of walking and physical activity in the United States. *Medicine and*

Science in Sports and Exercise, 35(9), 1529-1536.

Frohlich, K. L., Corin, E., & Potvin, L. (2001). A theoretical proposal for the relationship between context and disease. *Sociology of Health and Illness*, 23(6), 776-797.

Gardner, C. B. (1995). *Passing by: Gender and public harassment*. Berkeley, CA: University of California Press.

Giddens, A. (1979). *Central problems in social theory: Action, structure and contradiction in social analysis*. London: Macmillan.

Glaser, B. G., & Strauss, A. (1967). *The discovery of grounded theory*. Chicago: Aldine.

Godbout, J. T. (2003). *The world of the gift*. Montreal, CA: McGill-Queens's University Press.

Gordon-Larsen, P., Nelson, M. C., Page, P., & Popkin, P. M. Inequality in the built environment underlies key health disparities in physical activity and obesity. *Pediatrics*, 117(2), 417-424.

Gwantley, J. L. (1980). *Drylongso: A self-portrait of Black America*. New York, NY: Random House.

Handy, S. L., Boarnet, M. G., Ewing, R., & Killingsworth, R. E. (2002). How the built environment affects physical activity: Views from urban planning. *American Journal of Preventive Medicine*, 23(2), 64-73.

Hillsdon, M., Thorogood, M., White, I., & Foster, C. (2002). Advising people to take more exercise is ineffective: a randomized control trial of physical activity promotion in primary care. *International Journal of Epidemiology*, 31(4), 808-815.

Hodgetts, D., Bolam, B., & Stephens, C. (2005). Mediation and the construction of

- contemporary understandings of health and lifestyle. *Journal of Health Psychology*, 10(1), 123-136.
- Hoehner, C. M., Brennan Ramirez, L. M., Elliott, M. B., Handy, S. L., & Brownson, R. C. (2005). Perceived and objective environmental measures and physical activity among urban adults. *American Journal of Preventive Medicine*, 28(2), 105-116.
- Hovell, M. F., Wahlgren, D. R., & Gehrman, C. A. (2002). The behavioral ecological model: Integrating public health and behavioral science. In DiClemente, R. J., Crosby, R. A., & Kegler, M. C., (Eds.). *Emerging theories in health promotion practice and research: Strategies for improving public health* (pp. 347-385). San Francisco, CA: Jossey-Bass.
- Huston, S. L., Evenson, K. R., Bors, P., & Gizlice, Z. (2003). Neighborhood environment, access to places for activity, and leisure-time physical activity in a diverse North Carolina population. *American Journal of Health Promotion*, 18(1), 58-69.
- Katz, D. A., Graber, M., Birrer, E., Lounsbury, P., Baldwin, A., Hillis, S. L., & Christensen, A. J. (2009). Health beliefs toward cardiovascular risk reduction in patients admitted to chest pain observation units. *Academic Emergency Medicine*, 16(5), 379-387.
- Katz, J. (1983). A theory of qualitative methodology: The social system of fieldwork. In R. Emerson (Ed.), *Contemporary Field Research* (pp. 127-148). Prospect Heights, IL: Waveland.
- Kelley, R. D. G. (1998). *Yo' mama's disfunkcional!: Fighting the culture wars in urban America*. Boston: Beacon Press.
- Kelly, C. M., Schootman, M., Baker, E. A., Barnidge, E. K., & Lemes, A. (2007). The

- association of sidewalk walkability and physical disorder with area-level race and poverty. *Journal of Epidemiology and Community Health*, 61(11), 978-983.
- Kerr, J., Norman, G. J., Sallis, J. F., & Patrick, K. (2008). Exercise aids, neighborhood safety, and physical activity in adolescents and parents. *Medicine and Science in Sports and Medicine*, 40(7), 1244-1248.
- Kessler, R. C., House, J. S., Anspach, R. A., & Williams, D. R. (1995). Social Psychology and Health. In K. Cook, G. Fine, & J. House (Eds.), *Social Perspectives on Social Psychology*. New York, NY: Allen and Bacon.
- Li, F., Fisher, J., & Brownson, R. C. (2005). A multilevel analysis of change in neighborhood walking activity in older adults. *Journal of Aging and Physical Activity*, 13(2), 145-159.
- Link, B. G., & Phelan, J. C. (1995). Social conditions as fundamental causes of disease. *Journal of Health and Social Behavior*, 36(Extra Issue), 80-94.
- Martinez, S. M., Arredondo, E. M., Perez, G., Baquero, G. (2009). Individual, social, and environmental barriers to and facilitators of physical activity among Latinas living in San Diego County: Focus group results. *Family and Community Health*, 32(1), 22-33.
- Macintyre, S., & Ellaway, A. (2003). Neighbourhoods and health: An overview. In I. Kawachi, & L. F. Berkman (Eds.), *Neighbourhoods and health* (pp. 20-42). New York, NY: Oxford University Press.
- Miles, R., & Panton, L. (2006). The influence of the perceived quality of community environments on low-income women's efforts to walk more. *Journal of Community Health*, 31(5), 379-392.

- Moore, L. V., Diez Roux, A. V., Evenson, K. R., McGinn, A. P., & Brines, S. J. (2008). Availability of recreational resources in minority and low socioeconomic status areas. *American Journal of Preventive Medicine*, 34(1), 16-22.
- Nies, M. A., Vollman, M., & Cook T. (1999). African American women's experiences with physical activity in their daily lives. *Public Health Nursing*, 16(1), 23-31.
- Prashad, V. (2003). Bruce Lee and the anti-imperialism of Kung Fu: A polycultural adventure. *positions: East Asia cultures critique*, 11(1), 51-90.
- Powell, L. M., Slater, S., Chaloupka, F. J., & Harper, D. (2006). Availability of physical activity-related facilities and neighborhood demographic and socioeconomic characteristics: A national study. *American Journal of Public Health* 96(9), 1676-1680.
- Rippe, J. M. (1996). Overweight and health: Communications challenges and opportunities. *American Journal of Clinical Nutrition*, 63, 470S-473S.
- Rosenstock, I. (1974). Historical origins of the health belief model. *Health Education Monographs*, 2, 328-335.
- Ross, C. E. (1993). Fear of victimization and health. *Quantitative Criminology*, 9(2), 159-175.
- Ross, C. E., and Mirowsky, J. (2001). Neighborhood disadvantage, disorder, and health. *Journal of Health and Social Behavior*, 42, 258-276.
- Sabourin, S., & Irwin, J. Prevalence of sufficient physical activity among parents attending a university. *Journal of American College Health*, 56(6), 680-685.
- Sallis, J. F., Johnson, M. F., Calfas, K. J., Caparosa, S., & Nichols, J. F. (1997). Assessing perceived physical environmental variables that may influence physical activity.

- Research Quarterly for Exercise and Sport*, 68(4), 345-351.
- Sallis, J. F., King, A. C., Sirard, J. R., & Albright, C. L. (2007). Perceived environmental predictors of physical activity over 6 months in adults: Activity counseling trial. *Health Psychology*, 26(6), 701-709.
- Schulz, A. J., Williams, D. R., Israel, B. A., & Lempert, L. B. (2002). Racial and spatial relations as fundamental determinants of health in Detroit. *The Millbank Quarterly*, 80(4), 677-707.
- Schulz, A. J., & Lempert, L. B. (2004). Being part of the world: Detroit women's perceptions of health and the social environment. *Journal of Contemporary Ethnography*, 33(4), 437-465. doi:10.1177/0891241604265979
- Sewell, W. H., Jr. (1992). A theory of structure: Duality, agency, and transformation. *The American Journal of Sociology*, 98(1), 1-29.
- Shaw Hughner, R., & Schultz Kleine, S. (2008). Variations in lay health theories: Implications for consumer health care decision making. *Qualitative Health Research*, 18(12), 1687-1703. doi:10.1177/1049732308327354
- Stack, C. (1977). *All our kin: Strategies for survival in Black community*. New York: Basic Books.
- Sugrue, T. (1997). *The origins of the urban crisis: Race and inequality in postwar Detroit*. Princeton, NJ: Princeton University Press.
- Taylor, W.C., Sallis, J. F., Lees, E., Hepworth, J. T., Feliz, K., Volding, D. C., . . . Tobin, J. N. (2007). Changing social and built environments to promote physical activity: Recommendations from low income, urban women. *Journal of Physical Activity*

& *Health*, 4(1), 54-65.

- Terry, C. M. (2006). The martial arts. *Physical medicine and rehabilitation clinics of North America*, 17(3), 328-335.
- Troped, P. J., Saunders, R. P., Pate, R. R., Reininger, B., & Addy, C. L. (2003). Correlates of recreational and transportational physical activity among adults in a New England community. *Preventive Medicine*, 37(4), 304-310.
- Valach, L., Young, R. A., & Lynam, M. J. (1996). Family health promotion projects: An action-theoretical perspective. *Journal of Health Psychology*, 1(1), 49-63.
- Wen, M., Kandula, N. R., Lauderdale, D. S. (2007). Walking for transportation of leisure: What difference does neighborhood make? *Journal of General Internal Medicine*, 22(12), 1674-1680.
- Wilson, D. K., Kirtland, K. A., Ainsworth, B. E., & Addy, C. L. (2004). Socioeconomic status and perceptions of access and safety for physical activity. *Annals of Behavioral Medicine*, 28(1), 20-28.
- Wolch, J., Wilson, J. P., & Fehrenbach, J. (2005). Parks and park funding in Los Angeles: An equity mapping analysis. *Urban Geography*, 26(1), 4-35.

Table 3.1. Self-rated health of sample

	Frequency
Excellent	4 of 47 (8.5%)
Good	27 of 47 (57.4%)
Average	10 of 47 (21.3%)
Poor	6 of 47 (12.8%)

Notes: Open-ended interview data were grouped into the above four categories. For example, “Excellent” included participants who described their health as “excellent”, “great”, and “wonderful”. “Average” included participants who described their health as “average”, “decent”, “fair”, “so-so”, and “needs improvement”.

Table 3.2. Neighborhood Population and Poverty, High School Graduation Rates

Census Tracts	Individual Poverty Rate	High School Graduation Rate
Near-Northwest		
Tract 1	41.7%	56.7%
Tract 2	40.3%	60.6%
Tract 3	30.0% ^a	65.0%
Tract 4	39.3%	64.9%
Tract 5	30.7%	66.0%
Lower-East		
Tract 1	37.4% ^b	70.9%
Tract 2	16.7%	85.0%
Tract 3	24.9%	66.8%

Notes: Data are from the 2000 census.

^a The individual poverty rates were measured in 1999, which appears to have been but a brief respite from longer-term poverty neighborhood residents have experienced. The individual poverty rates for the near-northwest tracts 3 and 5 were 43.4% and 43.2%, respectively in the 1990 census (1989 data). These two tracts do not otherwise appear to be unique compared to the other three.

^b Tract 1 in the lower-east contains a large public housing development with over 1,000 residents and higher rates of poverty.

Table 3.3. Safety Concerns According to Neighborhood

	Near- Northwest	Lower- East
Concerned about personal safety	21 of 25 (84.0%)	8 of 22 (36.4%)
Reported seeing stray dogs	23 of 25 (92.0%)	10 of 22 (45.5%)
Dissatisfied with local parks	20 of 25 (80.0%)	5 of 22 (22.7%)
Dissatisfied with local recreation facilities	16 of 25 (64.0%)	8 of 22 (36.4%)

Table 3.4. Physical Activities and Safety Concerns According to Gender

	Women	Men
Felt they did not get enough exercise	19 of 25 (76.0%)	10 of 22 (45.5%)
Childcare affected level of physical activity	11 of 21 (52.4%)	3 of 13 (23.1%)
Household chore physical activity	23 of 25 (92.0%)	5 of 22 (22.7%)
Concerned about safety in neighborhood	17 of 25 (68.0%)	12 of 22 (54.5%)

Chapter 4

Health Behaviors in the Inner-City: Scholarly Understandings and Lived Experiences

Introduction

Researchers have documented increasing rates of obesity in the United States and worldwide (Robert Wood Johnson Foundation, 2009; World Health Organization, 2003). Obesity has been linked to cardiovascular disease, diabetes, hypertension and knee damage (Sowers, 2003; Hochberg et al., 1995). Some epidemiologists have argued that the increases in mortality and morbidity due to obesity will reverse longstanding gains in human life-expectancy (Olshansky et al., 2005; Wyatt, Winters, & Dubbert, 2006). There is, however, a growing body of work that criticizes the heightened concern over obesity as a “moral panic” with journalists, government health agencies, weight-loss industries and other vested parties exaggerating the health risks of increased body weight (Campos, Saguy, Ernsberger, Oliver, & Gaesser, 2006; Saguy & Riley; 2005).

Links between physical activity, eating habits and obesity are well established (Centers for Disease Control, 2008). The purpose of this article is not to debate whether risks associated with obesity are biological facts or social constructions. Rather, I intend to examine how physical activity and nutrition in two low-income, urban neighborhoods are understood by health researchers and lived by the residents themselves. Specifically, I will analyze whether measurements of the sources of physical activity and the quantity of nutritional knowledge in two predominantly African American neighborhoods in Detroit,

Michigan correspond to the lived experiences of residents. This research has broad implications for the design of public health interventions aimed at improving the exercise and eating habits of inner-city residents.

I will examine how physical activity and nutrition are lived by residents and understood by scholars in two low-income Detroit neighborhoods. How do researchers view the sources of deficient diet and exercise habits? Do common measurements and understandings of exercise behaviors and nutritional knowledge adequately capture the lived experiences of residents in low-income communities? If there are shortcomings in the measurements and understandings of health behaviors in the inner-city, what are the implications for efforts targeting improved diet and exercise?

Although the Surgeon General recommends that adults engage in at least 30 minutes of leisure-time physical activity daily, almost half of U.S. adults do not meet these guidelines (U.S. Department of Health and Human Services, 1996; Ham, Yore, & Fulton, 2004). Similarly, government health agencies have recommended diets based on lean meats, whole grains, and the consumption of at least five servings of fruits and vegetables daily (Drewnowski & Darmon, 2005; U.S. Department of Agriculture, 1990). However, Serdula and colleagues (2004) estimated that only one in four Americans actually meet these guidelines.

Efforts to promote better physical activity and nutritional practices have primarily focused on the health behaviors of individuals (Nestle & Jacobson, 2000). However, others have cited the built and social environments of neighborhoods as encouraging poor dietary practices and discouraging physical activity (Booth, Pinkston, & Potson, 2005). Emphasis on promoting physical activity and nutrition may fail to account for the

contextual barriers faced by individuals in low-income neighborhoods. Furthermore, there has been insufficient research looking at how much inner-city residents actually know about healthy diet and exercise in the first place.

Background

Obesity is more prevalent in Detroit than Michigan as a whole (38.1% and 30.1%, respectively (Anderson, Lyon-Callo, Monje, Boivin, & Imes, 2009). In media reports, causes of obesity are portrayed unequally when focusing on marginalized populations, such as those living in low-income Detroit neighborhoods. In a content analysis of 221 news reports discussing scientific studies of obesity, Saguy and Almeling (2005) found that articles reporting on African Americans and Latinos were over eight times more likely to blame obesity on bad food choices and over 13 times more likely to blame it on sedentary lifestyles. They also found that articles reporting on the poor were four times as likely to blame obesity on sedentary lifestyles. Guthman (2007), in her examination of the moral panic surrounding obesity, argued that the gaze of popular culture has shifted from structural policies such as the subsidization of cheap, but unhealthy foods to an individualistic focus on the “fat body”. This shift is further antagonized by a growing industry of products claiming to assist individuals in losing weight.

According to King and Williams (1995), understandings of obesity in poor and minority populations has been informed, in part, by a-historical and oversimplified interpretations of Lewis' “culture of poverty” theory (Lewis, 1963). In many versions of the culture of poverty, the poor have a distinct worldview, norms and practices that are handed down from one generation to the next. Originally viewed as an adaptation to dire social and economic conditions, the culture takes on a life of its own, and prevents the

poor from breaking out of the cycle of poverty. Thus, Lewis' concept has been reinterpreted by some to suggest that individuals adopt a “lifestyle” of unhealthy eating and exercise habits. Wilbur and colleagues (2002), for example, cited the culture of poverty as a major influence on the physical activity patterns of low-income African American women. An underlying assumption of this view is that the obesity-related behaviors of individuals derive from essential features of cultures, such as the inability to defer gratification. Some researchers see the education of individuals in high risk populations about healthy lifestyles as one of the keys to changing their eating and exercise habits (Zunker et al., 2008). However, studies of risky behaviors have demonstrated that high risk populations already have much of the health information that professionals try to impart, but make unhealthy decisions for other reasons (Luker, 1975; Travers, 1995). Others have argued that educational interventions are paternalistic, victim-blaming and dismissive of contextual influences (Ryan, 1971).

Although improvements in physical activity and nutrition have been shown to reduce the risks associated with obesity-related diseases such as high blood pressure (Fagard, 1999), high cholesterol (Kraus et al., 2002) and diabetes (Goodyear & Kahn, 1998), the most effective means of achieving these changes are not clearly understood. Researchers have designed numerous interventions to increase knowledge about physical activities and nutrition. However, outcomes have generally been disappointing, especially regarding the long-term maintenance of lifestyle changes (Bazata, Robinson, Fox, & Grandy, 2008; Miller & Dunstan, 2004; Bulwer, 2004; Fortmann, Taylor, Flora, & Winkleby, 1993).

Sources of physical activity. Leisure-time physical activity is the most commonly

used measure of exercise habits. However, this concept has been criticized by numerous researchers. Among women in particular, domestic and child care activities contribute significant amounts of physical activity (Collins, Miller, & Marshall, 2007; Phongsavan, Merom, Marshall, & Bauman 2004). Weller and Corey (1998) found that non-leisure time physical activity accounted for 82% of the total activity of the adult women in their sample. Active transport—human-powered walking or cycling as a means to reach a destination—has also been shown to be a significant source of physical activity among low-income men and women (Agrawal & Schimek, 2007). Those with higher incomes are less likely to take utility walk trips but more likely to take recreational walk trips, and greater numbers of individuals walk on sidewalks with defects compared to higher-quality sidewalks (Suminski, Heinrich, Poston, Hyder, & Pyle, 2008). The relationship between utility walk trips and income may result, in part, from lack of vehicular transportation, which is 6 to 7 times more common in lower-income households (Murakami & Young, 1999). Additionally, Kelly, Schootman, Baker, Barnidge, & Lemes (2007) found that sidewalks in block groups populated predominantly by African Americans were 38 times more likely to have a lot of unevenness, 15 times more likely to have many obstructions, and 12 times more likely to have physical disorder. Hence, measuring physical activity levels requires consideration of the unique circumstances of individuals according to their neighborhood, race, class and gender.

Nutritional knowledge. Biomedical approaches view obesity as a disease. This model emphasizes the need to change eating and other obesity-related behaviors by sharing knowledge about healthy diets with individuals who are assumed to be uninformed (Labonte & Robertson, 1996). In recent years, the emphasis of health

promotion has shifted from community-based approaches to the more individualistic biomedical model (Raphael & Bryant, 2006). Policymakers may also misidentify the source of nutritional deficiencies as lack of education. Some have argued that unhealthy nutritional practices are often misclassified as nutritional ignorance when they result from lack of access to healthy foods (McEntree, 2009; Kirkup et al., 2004). Travers (1996) found that low-income women were aware of and attempted to implement nutritional recommendations to limit salt, fat and caffeine intakes and consume foods rich in essential nutrients, such as vitamins and iron. Bazata and colleagues (2008) found that most individuals with a high risk for diabetes (including those with low incomes and low education) knew that improving their diet would have a positive effect on their health, but had trouble translating that knowledge into practice.

Even if low-income individuals do have lower-levels of nutrition knowledge, its association with food choices may also be overemphasized. Tepper and colleagues (1997) found that nutritional knowledge played only a modest role in food choices. More immediate considerations, such as hunger and stress, have been shown to be stronger predictors of food choices than nutritional knowledge (Mancino & Kinsey, 2008). In short, researchers have overestimated the effects of knowledge or education on health behaviors.

Policy Implications. To improve understandings of physical activity behaviors, policymakers must consider the unique pressures faced by residents of low-income, urban communities. Parker and colleagues (1998) advocated paying close attention to the context and history of Detroit communities and partnering with residents when designing health education interventions. Others have argued that recreational facilities in low-

income communities must do a better job attracting local residents (Scott, Evenson, Cohen, & Cox, 2007). To address the infrastructural shortcomings of low-income neighborhoods, urban planners have proposed redesigning sidewalks and streets to promote walking and cycling (Booth, Pinkston, & Poston, 2005). Thus, other interventions have focused on structural factors in urban environments.

Regarding eating habits, Hoisington and colleagues (2002) found that when low-income women assessed nutritional interventions, they requested information about stretching food dollars more than any other type of education. Similarly, Travers (1996) found that nutritional education was often irrelevant, impractical, and even detrimental to the lives of many low-income women and their families:

“As long as professional practice continues to place primary emphasis on changing individuals without consideration of the context within which they work, the potential remains high for victim blaming on the part of professionals, and guilt on the part of the individual who is unable to live up to expectations. Dogmatic nutrition messages do not assist the disadvantaged in making reasonable and moderate choices among available alternatives, but foster a sense of inadequacy and guilt for failing to live up to the standard set by them.”

Hence, better understandings of the physical activity and nutritional knowledge of inner-city residents are critical. To the degree that researchers and policymakers view social structures, cultures, or individuals themselves as deficient, these views will inform their attempts to change health practices. Better orienting health promotion interventions to account for the knowledge, experiences and social environments of low-income urban

dwellers will increase their relevance and effectiveness.

Methods

To explore sources of physical activity and nutritional knowledge of inner-city residents, I used 47 semistructured, in-depth interviews from residents in two Detroit communities. Participants in this study came from two neighborhoods: one is on the near-northwest side of the city, and the other is located on the lower-east side.

Interviews

I conducted the interviews from from June 2008 through July 2009 and designed them to elicit detailed information about the lives, diets, food preferences, nutritional knowledge and neighborhood experiences of participants. They were face-to-face, open-ended and semistructured. At the beginning of interviews, I attempted to develop rapport and get to know participants. After that, I asked them to tell me about their eating and physical activities on the day of our interview and the prior day or days. I then them to describe typical days of eating and physical activity and also extreme days where they might eat in ways they normally didn't or do physical activities they normally wouldn't. For nutritional knowledge, I asked participants what they thought constituted a healthy diet. I then probed for follow-up responses about whether they thought they ate a healthy diet and, if not, what they would change about it to eat healthier. I also asked whether local food sources had any influence on their nutritional practices and whether they thought they were able to find nutritious foods at the local stores.

I spoke to a sample of 25 interviewees from the near-northwest neighborhood and 22 interviewees from the lower-east neighborhood. Participants ranged in age from 18-56. There were 22 men and 25 women. All subjects identified as African American. Of

the 47 residents I spoke with, four owned their own homes, 22 were employed at the time of the interview and 35 had completed high school. The interview times ranged from 28 minutes to two hours and 45 minutes. The median length was 49 minutes and the mean length was 57 minutes. Whenever possible, I would conduct informal ethnographic observation to supplement the interviews by shopping for food, eating and otherwise spending time with participants. I conducted observations with 21 of the 47 participants, often before or after interviews were conducted.

Participants were asked to rate their health and to describe any health issues they had experienced. Six participants identified chronic, debilitating health issues or rated their overall health as poor. The remainder (41 out of 47) rated their health in the range between average and excellent (see Table 4.1). Although I did not ask respondents to disclose their height or weight, 18 out of 47 mentioned that they considered themselves overweight or were trying to lose weight. It is likely, however, that more than half of the individuals I spoke with would be labeled by medical professions as overweight or obese.

Recruitment

I contacted potential participants in a variety of ways. I greeted and approached people sitting on their porches, waiting at bus stops, and otherwise living their lives². 12 participants introduced me to other individuals who participated in the study. Hence, the recruitment was a combination of non-random and snowball approaches. Interviewees chose to be interviewed at their homes, local public spaces or an office in the University of Michigan's Detroit Center. Participants had to be at least 18 years of age or older and living in the neighborhoods defined in the settings section below.

Early in the data collection process, I walked or biked through residential areas,

attempting to introduce myself to potential participants. When I found people willing to chat, I described the study and offered them a flier describing the research. The flier indicated that participants would be compensated with 15 dollars. It quickly became apparent that because of the incentive, lower-income residents were more likely to participate. To interview a greater share of individuals living above the poverty line (which was more than half of the population in each neighborhood, according to the Census), I recalibrated the locations of my recruitment efforts. I targeted public spaces commonly used by higher-income residents. In the near-northwest, I frequently stood outside of the neighborhood post office. In the lower-east, I recruited during late afternoons and early evenings, in an attempt to meet people arriving home from work. These strategies eventually yielded participants from a fairly representative mix of economic backgrounds. Similar efforts were not necessary to ensure that the sample reflected the gender, age, and family structure distributions of the neighborhoods.

Ethical Considerations. I obtained ethical approval in accordance with the requirements of the Institutional Review Board at the University of Michigan. For the sake of anonymity, I changed the names of participants, stores and streets to pseudonyms. I provided consent forms to participants and reviewed their content, verifying that their confidentiality would be protected, they could decline to answer any question and could withdraw from the study at any time. I was aware of my positions of privilege throughout the data collection. As a White, middle-class, male, academic, there were awkward moments in my attempts to develop rapport with participants. Neighborhood residents occasionally eyed me with suspicion or ignored me altogether. I was conscious of the implications of being an outsider to their communities. But as a Detroit native and

resident, I believed that I could empathize with many of their concerns. I also found that I could develop strong relationships with participants by demonstrating familiarity with their neighborhoods, humble dedication to my research and sincere interest in their lives.

The Settings

Near-Northwest. The near-northwest neighborhood is comprised of five contiguous census tracts, all of which contain similar building-types and rates of poverty. The side streets are a mix of duplexes, apartments and single-family homes. Bordering and bisecting the neighborhood are mainly commercial thoroughfares. On the western edge of the neighborhood, an interstate highway forms a very difficult to traverse physical barrier. Before its construction, 15 streets at the western edge of the neighborhood went from the neighborhood into communities to the west. Today, 13 of those streets now end at the interstate. Only two streets and two pedestrian bridges are traversable along the 1.96 mile stretch².

Census tract data (see Table 4.2) describe high levels of poverty among near-northwest residents (approximately 40%), as well as low levels of education (approximately 60% have graduated high school). The neighborhood's population is declining. Between 1990 and 2000, Census data showed 3,451 fewer people in the neighborhood (19.5%). The population today is almost exclusively African American (approximately 98%). Although the population has declined, the neighborhood remains a significant part of Detroit. Many blocks are still filled with sturdy homes and occupied by economically diverse residents (more than 60 percent of the neighborhood's residents are above the poverty line). The 2000 Census estimated 14,286 residents living in the five tracts. Still, a number of neglected apartments and houses have been demolished and

cleared while others await renovation or demolition. “Urban prairies” of tall grass, weeds, wildflowers and trees grow unchecked on many lots.

Lower-East. The lower-east neighborhood is comprised of three contiguous Census tracts and has a population of 7,302 residents (See Table 4.2). It has slightly lower (but still above national and state average) poverty rates compared to the near-northwest neighborhood. It contains newer buildings and better maintained parks and infrastructure. In addition, lower-east residents can take advantage of resources in nearby parts of Detroit. These resources include proximity to Downtown, Eastern Market (a large farmers' and wholesalers' market) and the city's recently redeveloped riverfront. Commerce is limited to one shopping area at the center of the neighborhood.

Almost every building in the lower-east was built in the past half century, because of aggressive urban renewal projects in and around the area after World War II (Sugrue 2005). Today, the neighborhood is mostly home to African Americans (approximately 95%). Its apartments, townhouses, condominiums and parks distinguish it from the near-northwest neighborhood. There are virtually no boarded up buildings or “urban prairies” amid the housing developments. Still, poverty remains a significant problem. A nearby soup kitchen serves many local residents. Two large public housing developments have been constructed in the neighborhood in recent decades. The choice of these communities offers a unique opportunity to compare the impacts of two distinct neighborhood environments on the food choices of individuals in similar economic circumstances.

Analysis

Interviews were recorded and transcribed verbatim. I supplemented interview transcripts with fieldnotes taken during and after interviews and informal observations. I analyzed

data using a grounded theory approach (Glaser & Strauss, 1967; Corbin & Strauss, 1990). Using NVivo 7 data analysis software, I coded all of the interview transcripts and fieldnotes to discern relevant themes and then developed themes into memos. I continuously refined theoretical ideas using retroduction, moving from interview data analysis to conceptual reframing (Emerson, 2004; Katz, 1983). As theoretical concerns and conceptual categories emerged, I sought new forms of relevant data.

Results

Non-Leisure Physical Activity

The vast majority of participants reported regularly engaging in non-leisure time physical activities (see Table 4.3). These activities included active transport, paid labor, and unpaid labor, such as household chores, childcare, and preparing meals³. Walking was the primary form of active transportation. Participants described numerous paid and unpaid labor activities as physically strenuous. Although both men and women both participated in non-leisure physical activity, the types they engaged in were strongly related to gender.

Active transport. 34 of 47 participants did not have their own automobile. Of those without personal transportation, only four lived with someone who had an automobile. Many engaged in significant amounts of walking as a form of transportation. Jackie, a 26 year old woman living in the lower-east, cited walking as her primary form of physical activity: “Well, if I’m not walking to the bus stop, you know, sometimes I’ll be walking to the store. . . . That may be the only exercise that I have for the day.”

Jackie stated that her walks to and from bus stops were often lengthy. The walking

required to commute by bus was not insignificant for Jackie and other individuals whose origins and destinations were not immediately adjacent to bus stops.

Paul, a 51 year old without an automobile living in the near-northwest, estimated that he spent eight hours walking some days. Most of his activities outside the home, such as getting to work, grocery shopping and visiting the homes of friends, required significant amounts of walking. He described the time and effort required:

I walk a lot. I'm always walking because that's how I get around to do my little work. . . . I usually walk from here all the way to the Gardens neighborhood, you know, to get to work. . . . A lot of days I don't even have bus fare to get there. So I have to get up a couple hours early to make my trek.

Paul could not usually find work in the neighborhood in which he lived, the near-northwest. His pursuit of employment while living in a community with few economic and transportation resources required lengthy non-leisure walks.

Samantha, a 42 year old also without access to an automobile, walked frequently and relied on the bus (which she dubbed "The Iron Pimp"). Because of difficulties associated with the bus system, she sometimes preferred to walk long distances in lieu of lengthy waits for bus transfers: "Today I walked from Main Street back here. What I did, I walked from the bus coming from [my job]. . . . So, I walked, you know, from there, because [transferring buses] is so slow."

Samantha incorporated lengthy walks into her daily commute due to the shortcomings she perceived in the public transportation system's service to her near-northwest

neighborhood. These perceptions were not randomly distributed, as residents of the near northwest (12 of 19 bus users) were more likely to complain about problems with the bus system (such as routes, scheduling and overcrowding) than residents of the lower east (7 of 13 bus users).

Women were more likely to report walking for transportation than men (see Table 4.3). However, the experience of walking in public was qualitatively different for women. Nearly every participant had concerns about walking in public at night, but men were more likely than women to express a willingness to do so. Lack of adequate street lighting and police presence, exacerbated these concerns. Additionally, the types of activities that brought people outside for active transport (travel for work, grocery shopping, escorting children to school) varied according to gender.

Work. The majority of interviewees with paid work activities considered them physically strenuous. These activities included heavy lifting, repetitive motions, walking and standing.

Tina, a 43 year old living in the lower-east, pursued “leisure-time” physical activities on a semi-regular basis, but felt that she got enough exercise from the work she did for a living:

Different contractors will hire us to clean out houses that they've bought. . . . We paint houses, we do home improvement, we put in walls, we put in ceilings, we put in windows, we do a lot of stuff for home improvement other than cleaning out the house. . . . So, that's a lot to do and come home and do exercise. . . .

Depending on how much work we do during the week, it makes a difference in how many times I get to go to the gym. That makes a big difference. . . . 'Cus it's

so strenuous! I mean, it wears me out.

For Tina, her level of leisure-time physical activity fluctuated according to the physical demands of her paid employment activities.

Paul felt that his perilous employment situation led him to overexert himself while working, risking his physical health:

I might be working on a job for 8 hours. You know, real physical stuff—uh, moving big bricks out of people's—debris and stuff—you know, rubbish, plumbing backed up. So, you know, it's really physical stuff. Like, I tore—I had to tear a garage down last week. And all it is is me and my sledgehammer. I didn't have no bulldozer. I gotta do it with my [hands]. I got a sledgehammer, and it took me a whole day to do that. . . . My back hurts sometimes. I'm doing a lot of bending, lifting up a lot of heavy stuff. I think sometimes—I think I push myself, because I wanna get it done. Of course, I want to get it done because I need money first. Then, I want people to like my work. You know, recommend me to other people, then call me back if they need some more, because this is how I survive. Because I don't have a job—a regular, you know, job.

Although researchers that emphasize leisure-time activity would place Paul into a category of individual's who *do not* get enough exercise, his physical health may have been jeopardized by *too much* exercise. The skills of participants and types of work available in their neighborhoods often led to substantial amounts of physical activity.

Unemployment and lack of physical activity. Four of 47 participants had been

employed in physically strenuous jobs in the past and were experiencing reductions in their levels of physical activity due to unemployment. In this sense, economic fortunes and physical activity were closely linked. Ronald, a 26 year old living in the near-northwest, highlighted the links between employment status, neighborhood and physical activity:

Ronald: I'm laid off right now, so... I've been laid off for the past two months, actually.

Dan: What kind of work were you doing?

Ronald: I worked for [a local snack food company].

Dan: Um, was it—was it physical labor?

Ronald: Yeah, it was an assembly line. It was physical labor. A lot of lifting, bending, pulling.

Ronald's physical activity at the time of our interview was limited to walks in his neighborhood. However, he expressed concern about crime and dissatisfaction with the lack of recreation facilities in his community, which may have further impeded his physical activity.

Household activities and childcare. Of the participants who indicated getting physical activity from household chores on a regular basis, the vast majority were women (see Table 4.3). Physically demanding childcare activities were also closely related to gender. Of those who indicated that they had physical activity from household chores and childcare, most were women. Not only were household chores and childcare strongly related to gender, they were also related to each other. Many of the participants who

indicated getting regular physical activity from household chores, also reported significant energy expenditures on childcare. Kiara, a 27 year old, sole-supporting mother of four children, including a newborn, described her typical afternoon of household and childcare activities:

I start dinner about—I'd say about 2:30, 3 o'clock. Dinner's done by five. And between time of cooking, there's always an extra load of dishes to do in between—because of lunch and whatnot. So, I'll do the dishes and sweep the floor. It's basically a—repeat what you do constantly throughout the day. And, you know, something is out of place here, you put that back. You have to bend over and pick up little pieces of paper and things like that. And then I'm constantly picking up my newborn. That's an all day thing.

Kiara indicated that her household chores and childcare activities left her physically and mentally exhausted, but still felt that she did not get enough exercise. She routinely walked back and forth and climbed the stairs in her apartment as strategies to burn more calories. However, she was uncomfortable going outside to exercise in her near-northwest neighborhood, which she dubbed, “Little Vietnam”.

The architecture of urban buildings also made some household activities more physically strenuous. Tiffany, a 30 year old living on the top floor of an elevatorless three-story apartment building in the lower-east, described the physically challenging nature of doing laundry: “[I'm constantly going] up and down the stairs washing laundry. That can be very challenging. [It's] all the way in the basement, up and down, up and down, carrying clothes—so that's very physical.”

Household and childcare activities involved significant amounts of energy expenditure for Tiffany and other participants. They were often experienced in a gendered social context where women were expected to perform these tasks, but felt uncomfortable going outside for physical activity (leisure or non-leisure) in their neighborhoods.

Nutritional Knowledge

All 47 participants articulated some explicit knowledge about healthy eating habits that resonated with medical and nutritional experts⁴ (see Table 4.4). Foods and beverages that were mentioned as beneficial for their nutritional values included vegetables, fruits, lean meats, whole grains and water. Fresh foods were mentioned as healthy by the majority of participants. Cooking at home was also described as healthier than eating in restaurants by several participants. Nutritional practices that were mentioned in a negative light included foods or eating habits to avoid, including “fried” or “greasy” foods, large portions and infrequent meals. Five interviewees had received some formal education in nutrition (three from professional training and two from health promotion programs).

Interview excerpts illustrate the nuanced and complex knowledge participants had about nutrition. John, a nurse in his early 30s living in the near northwest, articulated a definition of healthy food very similar to nutritional experts:

I would define healthy food as fruits, vegetables and whole grains. I look at what Jesus ate when he was here. He ate bread and fish—so most meats are “sub-healthy”—they’re not really good for you. I admire vegetarians a lot, but I’m just not one of them. If I was, I wouldn’t be a strict vegetarian. I would have to eat

chicken and fish, but if I did eliminate more it would be chicken. I would never stop eating fish because even Jesus ate fish. So I think a healthy diet is a balance of a good amount of fruits and vegetables, a very small amount of fried food, and a good amount of whole grains. I think your snacks should consist mostly of nuts, unsalted if you can get 'em, fruits, raisins, grapes, little veggies like the carrots, you know, if you can eat those. An apple a day is great—keep you regular, having good solid bowel movements. Keep you from getting constipated. Drink plenty of water. Limit the pop, drink juice, limit the alcohol, but the amount I drink wouldn't hurt a fly. . . . One dessert a day is OK.

Although John worked in the medical profession, he did not specialize in nutrition. He stated that his beliefs about nutrition were more informed by his efforts to lose weight and religion than any educational training he had received.

Bob, a 42 year old property manager living in the lower-east, emphasized the frequency of meals and portion sizes: “Eating moderately—get your three meals a day, a couple snacks, but definitely eating moderately. Overeating will cause you a lot of pain and stress later in life. . . . Smaller portions, but more meals.”

Bob's also mentioned limiting salt, red meat, pork and increasing intake of vegetables and water. But his focus on the timing and size of meals was, in part, based on self-criticism of habits he had struggled to change. He had located the nutritional significance of his own experiences and connected them to recommendations from nutritionists that went beyond the basic food pyramid.

The possession of sophisticated nutritional knowledge was not merely limited to medical professionals like John, or other middle-class participants like Bob. Kimberly, a 24 year old, unemployed, sole-supporting mother of three children living in the near-northwest, articulated a number of nutritional recommendations:

A lot of water—like, some people can't have like eight cups of water. Everybody's intake is different when it comes to food. Like for me, probably about at least four cups of water a day, exercise at least 30 minutes to an hour. Um, as far as eating, I'm think three fruits and maybe two vegetables and some protein—maybe some fish or chicken or turkey. I'm a little worried about, like, the pork and all the beef and all of that. I'm starting to worry a little bit about all of that. Those type of things, eating a salad—that's mainly a healthy diet for me. And juice is okay if it has vitamin C in it—maybe not like taking a lot of it. And I think everybody at my age should be taking vitamins, too.

Kimberly's views of good nutrition emphasized numerous options and flexibility. She listed three lean meat alternatives to pork and beef. She argued that the recommendation of eight glasses of water per day should not apply to everyone. So she not only could recite professional recommendations but also could criticize them. Additionally, she saw complexity in the benefits and drawbacks of juice—with the sugar content being more acceptable if it's offset by vitamin C.

Reggie, an unemployed 42 year old living in the lower-east, had a similarly nuanced understanding of his beverage choices:

I'm not really a big fruit eater. Not like I should be. You know, I don't drink soda,

but I like drinking fruit juice. And what I'll do, the fruit juice has got so much, like, high-fructose corn syrup in it that I'll probably—I'm into diluting everything now. I cut it with water.

Reggie was aware that his nutritional choices fell between the optimal (raw fruit) and the detrimental (soda). His efforts to cut back on the high-fructose corn syrup in fruit juice by adding water demonstrated sophisticated knowledge of the compromises possible in his beverage choices.

Reggie's efforts to change his habits based on nutritional advice were not unique. Chantel described her success in changing her habits of eating before bed:

I make sure after I eat I stay awake two hours before I go to sleep. I used to just eat, smoke weed, and go straight to sleep. So all that food would sit on my stomach and I'd wake up with all that body. . . . But now I just take my time and eat, drink water with my food. That keeps my stomach down.

Chantel's strategies of staying up two hours before going to sleep and drinking water with meals resonated with the advice of nutritionists.

Because of its wide availability and popularity in both neighborhoods, concerns about fried food were brought up by a number of interviewees, such as June, a lower-east resident in her late 40s: "I try not to eat a lot of greasy food. I try to eat a lot of baked foods, broiled. I'm trying to get away from fried food because of high blood pressure."

The majority participants mentioned that a healthy diet involved avoiding food that was

“greasy” or “fried”. Hence, the consumption of fried food might not reflect a lack of knowledge about its consequences, but rather a lack of otherwise viable and desirable alternatives.

Freshness. Freshness appeared to be of concern to participants for varying reasons. Some related a preference for fresh meat and produce as opposed to canned, packaged or frozen products. Others were worried about the quality and safety of meats and produce that had sat on the shelves for too long. Many participants were keenly aware of dangers in food supplies of spinach, tomato and meat around the time of our interviews. The possession of this knowledge came from both media and social networks. June indicated that her daughter had reminded her of a recent tomato recall as they shopped together in a grocery store. Betty, a 38 year old living in the near-northwest, described how she applied knowledge of threats in the food supply gleaned from news reports to her own food preparation practices:

There was a factory and they were talking about. Well, somebody got sick. I think somebody died. Because the canned goods—see what they weren't doing was cleaning 'em. And see, sometimes a rat can get it. What they do when they get on top of things—they pee on 'em! So, here I come and I buy a can of green beans and guess what went into that. So, see, that means a lot to me. Because if I gotta buy something from you, then I gotta come home and scrub it down.

Freshness for others was a concern due to lack of access to nutritious foods. Bob, who articulated a vast repertoire of nutritional knowledge, discussed his difficulties finding healthy foods at reasonable prices in his lower-east neighborhood:

Most of the time you have to go out a little further. Uh, within the city of Detroit itself, you can probably find some fresher produce, but you'll find the majority of it further out. The further out you go, you can find better stores and cheaper prices, better products.

Bob lamented that his lack of personal transportation often made accessing these stores unfeasible. Hence, while he emphasized that freshness was a key component of nutrition, it was knowledge that he had difficulty putting into practice in his neighborhood.

Nutrition as a secondary concern. Perhaps most telling of the mismatch between sophisticated knowledge and the lack of resources or access to apply it were the comments of Elton, a 33 year old, unemployed computer technician living in the lower-east. After he detailed the need for fruits and vegetables, I asked him why he did not follow nutritional advice he knew about: “I can do it, but as long as I’m full and I’m eating what I—I’m pretty good. I’m just more so concerned about, uh, working.”

Although Elton and every other participant articulated nutritional knowledge that corresponded to professional recommendations, access and financial concerns were more important for many.

Still, others devised strategies to not only to stretch limited food budgets, but also to address their nutritional concerns. June discussed balancing her budgetary and health concerns:

Since the food has went up [in price], I’ve been eating a lot of, say, uh, pots, like beans or greens or stews, you know, chili, spaghetti, pasta salad . . . something

that's healthy and you can eat on more than one day.

June's primary concern in her decision-making process was price. With a limited budget, she mentioned “getting full” as her foremost concern. But she also found ways to incorporate options she felt were nutritious.

Discussion

The results suggest a mismatch between some scholarly understandings and measurements of eating and physical activity and the lived experiences of residents in low-income, urban neighborhoods. The recent finding that 31.9% of Detroit residents did not engage in leisure-time physical activity (Anderson, Lyon-Callo, Monje, Boivin, & Imes, 2009) might be a misleading measure of overall levels of exercise. For many participants in this study, the leisure-time approach fails to capture significant energy expenditures required by daily necessities. Childcare, household and occupational tasks generated substantial amounts of physical activity for many participants. Walking for transportation was also a significant source of physical activity for those without access to an automobile. Economic decline, cuts to public transportation, depopulation and the dispersal of residents and resources (such as grocery stores) in Detroit neighborhoods further exacerbate active transportation demands on those without access to an automobile. Using a leisure-time measurement of physical activity as a proxy for overall energy expenditure might be the product of a middle-class perspective in which occupations are more likely to be sedentary and automobiles are ubiquitous. Although criticisms of using leisure-time physical activity as a proxy for overall physical activity are not new, this research specifically demonstrates how the “leisure-time” measurement

corresponds to the daily lives of residents in low-income neighborhoods.

Nutritional knowledge among interviewees was widespread. It was not lacking in any neighborhood, class or gender. In many cases, knowledge was nuanced and sophisticated, covering an array of nutritional topics. However, many participants had difficulty putting this knowledge into practice due to the lack of access and affordability of healthy foods. These findings suggest that health education efforts might be misguided as opposed to addressing lack of access to high-quality food sources. They also call into question the validity of the biomedical model's emphasis on using nutritional education to address obesity. Educational programs may misjudge the levels of nutritional knowledge low-income populations already have. They also must vie for the attention of residents against heavily-funded countervailing messages such as fast food advertisements.

Structural explanations point out important barriers to health that the biomedical approach fails to capture. However, they cannot illustrate the processes through which low-income, urban neighborhoods encourage some forms of physical activity and discourage others. They also tend to ignore the presence of nutrition-savvy residents who are capable of developing strategies to pursue nutritious foods. Still, the best approaches to understanding these health behaviors will consider the knowledge and potential of residents alongside the contextual barriers they face.

This study is limited by the brief nature of its look at life in these two neighborhoods. Changes underway in both neighborhoods, such as shifts in opportunities for work and leisure, continue to alter the potential sources of physical activities. Attitudes and knowledge about nutrition may also be subject to broader social and cultural shifts. Although this research might be applicable to other urban neighborhoods,

its generalizability is limited. In addition, the heavy reliance on interviews tells us what physical activities respondents say they do rather than what they actually do.

Future research into physical activity sources should look at how to enable both leisure and productive physical activities through neighborhood improvements. These improvements could include government investments in community gardening and rebuilding to promote “productive” physical activities along with improvements to neighborhood infrastructure, such as sidewalks, parks and recreation facilities to promote “leisure” activities. Future research into nutritional knowledge should more clearly quantify what is known and where knowledge deficits may exist. It should also explore the sources of nutritional information.

Conclusion

Participants reported sources of physical activity and knowledge of nutrition that did not correspond with common understandings and measurements of health behaviors. Necessities of daily life for interviewees often required significant amounts of non-leisure time physical activity. An approach to changing exercise behaviors that emphasizes the pursuit of leisure-time activities in low-income neighborhoods fails to account for structural barriers to leisure as well as significant involvement in non-leisure time activities. Participants also demonstrated a better understanding of nutrition than is assumed by those who emphasize health education. Although some residents had vast repertoires of knowledge about healthy food and desired high-quality nutrition, if there were not sufficient opportunities to obtain them (access, availability, transportation, finance, etc.), they were forced to settle for options within their reach.

Notes

1. I specifically avoided making contacts at or near food source settings.
2. The consequences of highway construction in Detroit's African American communities are discussed at length by Thomas Sugrue (2005).
3. "Significant" physical activity from paid or unpaid labor was considered participating in the activity at least once per week *and* considering that participation to be physically strenuous.
4. Only nutritional practices that were communicated by participants in a normative fashion (what one *should* or *shouldn't* do) were counted as nutritional knowledge. This material often came up in response to the question, "What do you think makes up a healthy diet?" Eating habits described by participants (whether or not they corresponded to professional dietary recommendations) were not considered knowledge about healthy nutrition.

References

- Agrawal, A., & Schimek, P. (2007). Extent and correlates of walking in the U.S.A. *Transportation Research, Part D*, 12(8), 548-563.
- Anderson, B. E., Lyon-Callo, S. K., Monje, S. E., Boivin, M. D., & Imes, G. (2009). Overweight and Obesity in Michigan: Surveillance Report Series 2009. Lansing, MI: Michigan Department of Community Health, Bureau of Epidemiology, Chronic Disease Epidemiology Section.
- Bazata, D. D., Robinson, J. G., Fox, K. M., & Grandy, S. (2008). Affecting behavior change in individuals with diabetes: findings from the Study to Help Improve Early Evaluation and Management of Risk Factors Leading to Diabetes (SHIELD). *The Diabetes Educator*, 34(6), 1025-1036.
- Booth, K. M., Pinkston, M. M., & Poston, W. S. (2005). Obesity and the built environment. *Journal of the American Dietetic Association*, 105(5), S110-117.
- Bulwer, B. E. (2004). Sedentary lifestyles, physical activity, and cardiovascular disease: From research to practice. *Critical Pathways in Cardiology*, 3(4), 184-193.
- Campos, P., Saguy, A. C., Ernsberger, P., Oliver, E., & Gaesser, G. (2006). The epidemiology of overweight and obesity: Public health crisis or moral panic? *International Journal of Epidemiology*, 35(1), 55-60.
- Centers for Disease Control (CDC). (2008). Physical activity and good nutrition: Essential elements to prevent chronic diseases and obesity. Retrieved from <http://www.cdc.gov/nccdphp/publications/aag/pdf/dnpa.pdf>
- Collins, B. S., Miller, Y. D., & Marshall, A. L. (2007). Physical activity in women with young children: How can we assess "anything that's not sitting"? *Women &*

Health, 45(2), 95-116.

Corbin, J., & Strauss, A. (1990). Grounded theory research: Procedures, cannons, and evaluative criteria. *Qualitative Sociology*, 13(1), 3-21.

Department of Agriculture. (1990). Report of the dietary guidelines advisory committee on the dietary guidelines for Americans, Hyattsville, MD.

Department of Health and Human Services. (1996) Physical Activity and Health: A report of the Surgeon General. Atlanta, Georgia.

Drewnowski, A., & Darmon, N. (2005). Food choices and diet costs: An economic analysis. *The Journal of Nutrition*, 135, 900-904.

Emerson, R. M. (2004). Working with 'key incidents'. In Seale C., Gobo, G., Gubrium, J. F., & Silverman, D. (Eds.), *Qualitative research practice* (pp. 457-472). London, UK: Sage.

Fagard, R. H. (1999). Physical activity in the prevention and treatment of hypertension in the obese. *Medicine and Science in Sports and Exercise*, 31(11), 624S-630S.

Fortmann, S. P., Taylor, C. B., Flora, J. A., & Winkleby, M. A. (1993). Effect of community health education on plasma cholesterol levels and diet: The Stanford Five-City Project. *American Journal of Epidemiology*, 137(10), 1039-1055.

Glaser, B. G., & Strauss, A. (1967). *The discovery of grounded theory*. Chicago, IL: Aldine.

Goodyear, L. J., Kahn, B. B. (1998). Exercise, glucose transport, and insulin sensitivity. *Annual Review of Medicine*, 49, 235-261.

Guthman, J. (2007). Can't stomach it: How Michael Pollan et al. made me want to eat Cheetos. *Gastronomica*, 7(3), 75-79.

- Ham, S. A., Yore, M. M., & Fulton, J. E. (2004). Prevalence of no leisure-time physical activity: 35 states and the District of Columbia, 1988-2002. *Morbidity and Mortality Weekly Report*, 53(4), 82-86.
- Hochberg, M. C., Lethbridge-Cejku, M., Scott, W. W. Jr., Reichle, R., Plato, C. C., & Tobin, J. D. (1995). The association of body weight, body fatness and body fat distribution with osteoarthritis of the knee: Data from the Baltimore Longitudinal Study of Aging. *The Journal of Rheumatology*, 22(3), 488-493.
- Hoisington, A., Shultz, J. A., & Butkus, S. (2002). Coping strategies and nutrition education needs among food pantry users. *Journal of Nutrition Education and Behavior*, 34(6), 326-333.
- Katz, J. (1983). A theory of qualitative methodology: The social system of fieldwork. In R. Emerson (Ed.), *Contemporary Field Research* (pp. 127-148). Prospect Heights, IL: Waveland.
- Kelly, C. M., Schootman, M., Baker, E. A., Barnidge, E. K., & Lemes, A. (2007). The association of sidewalk walkability and physical disorder with area-level race and poverty. *Journal of Epidemiology and Community Health*, 61(11), 978-983.
- King, G., & Williams, D. R. (1995). Race and health: A multi-dimensional approach to African American health. In Levine, S., Walsh, D. C., Amick, B. C., & Tarlov, A. R. (Eds.). *Society and health* (pp. 93-130). New York, NY: Oxford University Press.
- Kirkup, M., Kervenoael, R. D., Hallsworth, A., Clarke, I., Jackson, P., & Aguila, R. P. D. (2004). Inequalities in retail choice: Exploring consumers experiences in suburban neighbourhoods. *International Journal of Retail & Distribution Management*,

32(11), 511-522.

- Kraus, W. E., Houmard, J. A., Duscha, B. D., Knetzger, K. J., Wharton, M. B., McCartney, J. S., . . . Slentz, C. A. (2002). Effects of the amount and intensity of exercise on plasma lipoproteins. *New England Journal of Medicine*, 347(19), 1483-1492.
- Labonte, R., & Robertson, A. (1996). Delivering the goods, showing our stuff: The case for a constructivist paradigm for health promotion research and practice. *Health Education & Behavior*, 23(4), 431-447.
- Lewis, O. (1963). The culture of poverty. *Society*, 1(1), 17-19.
- Luker, K. (1975). *Taking chances: Abortion and the decision not to contracept*. Berkeley, CA: University of California Press.
- McEntree, J. (2009). Highlighting food inadequacies: Does the food desert metaphor help this cause? *British Food Journal*, 111(4), 349-363.
- Mancino, L., & Kinsey, J. (2008). Is dietary knowledge enough? Hunger, stress, and other roadblocks to healthy eating. Economic Research Service, U.S. Department of Agriculture.
- Miller, Y. D., & Dunstan, D. W. (2004). The effectiveness of physical activity interventions for the treatment of overweight and type 2 diabetes. *Journal of Science and Medicine in Sport*, 7(1), 52-59.
- Murakami, E., & Young, J. (1999). *Daily travel by persons with low income*. U.S. Department of Transportation. Retrieved from <http://ntl.bts.gov/lib/5000/5100/5141/LowInc.pdf>
- Nestle, M., & Jacobson, M. F. (2000). Halting the obesity epidemic: A public health

- policy approach. *Public Health Reports*, 115(1), 12-24.
- Olshansky, S. J., Passaro, D. J., Hershow, R. C., Layden, J., Carnes, B. A., Brody, J., . . . Ludwig, D. S. (2005). A potential decline in life expectancy in the United States in the 21st century. *New England Journal of Medicine*, 352(11), 1138-1145.
- Parker, E. A., Schulz, A. J., Israel, B. A., & Hollis, R. Detroit's East Side Village Health Worker Partnership: Community-based lay health advisor intervention in an urban area. *Health Education & Behavior*, 25(1), 24-45.
- Phongsavan, P., Merom, D., Marshall, A., & Bauman, A. (2004). Estimating physical activity level: The role of domestic activities. *Journal of Epidemiology and Community Health*, 58(6), 466-467.
- Raphael, D., & Bryant, T. (2006). The state's role in promoting population health: Public health concerns in Canada, U.S.A., U.K., and Sweden. *Health Policy*, 78, 39-55.
- Robert Wood Johnson Foundation. (2009). F as in fat: how obesity policies are failing in America. Princeton, NJ. Retrieved from <http://healthyamericans.org/reports/obesity2009/>. Accessed June 17, 2010.
- Ryan, W. (1971). *Blaming the victim*. New York, NY: Pantheon Books.
- Saguy A. C., & Almeling R. (2005) Fat devils and moral panics: News reporting on obesity science. Presented at the SOMAH workshop. UCLA Department of Sociology. June 1, 2005.
- Saguy, A. C., & Riley, K. W. (2005). Weighing both sides: morality, mortality, and framing contests over obesity. *Journal of Health Politics, Policy and Law*, 30(5), 869-921.
- Scott, M. M., Evenson, K. R., Cohen, D. A., & Cox, C. E. (2007). Comparing perceived

- and objectively measured access to recreational facilities as predictors of physical activity in adolescent girls. *Journal of Urban Health*, 84(3): 346-359.
- Serdula, M. K., Gillespie, C., Kettel-Khan, L., Farris, R., Seymour, J., Denny, C. (2004). Trends in fruit and vegetable consumption among adults in the United States: Behavioral risk factor surveillance system, 1994-2000. *American Journal of Public Health*, 94(6), 1014-1018.
- Sowers, J. R. (2003). Obesity as a cardiovascular risk factor. *The American Journal of Medicine*, 115(8A), 37S-41S.
- Sugrue, T. (1997). *The origins of the urban crisis: Race and inequality in postwar Detroit*. Princeton, NJ: Princeton University Press.
- Suminski, R. R., Heinrich, K. M., Poston, W. S., Hyder, M., & Pyle, S. (2008). Characteristics of urban sidewalks/streets and objectively measured physical activity. *Journal of Urban Health*, 85(2), 178-190.
- Tepper, B. J., Choi, Y. S., & Nayga, R. M., Jr. (1997). Understanding food choice in adult men: Influence of nutrition knowledge, food beliefs and dietary restraint. *Food Quality and Preference*, 8(4), 307-317.
- Travers, K. D. (1996). The social organization of nutritional inequalities. *Social Science & Medicine*, 43(4), 543-553.
- Travers, K. D. (1995). "Do you teach them how to budget?": Professional discourse in the construction of nutritional inequalities. In Maurer, D., & Sobal, J. (Eds). *Eating agendas* (pp. 213-240). New York, NY: Walter de Gruyter.
- Weller, I. M., Corey, P. N. (1998). The impact of excluding non-leisure energy expenditure on the relation between physical activity and mortality in women.

Epidemiology, 9(6), 632-635.

Wilbur, J., Chandler, P., Dancy, B., Choi, J., & Plonczynski, D. (2002). Environmental, policy, and cultural factors related to physical activity in urban, African American women. *Women & Health*, 36(2), 17-28.

World Health Organization (WHO). (2003). Joint WHO/FAO Expert Consultation on diet, nutrition and the prevention of chronic diseases, diet, nutrition and the prevention of chronic diseases: report of a joint WHO/FAO expert consultation. Geneva, Switzerland: WHO.

Wyatt, S. B., Winters, K. P., & Dubbert, P. M. (2006). Overweight and obesity: Prevalence, consequences, and causes of a growing public health problem. *The American Journal of the Medical Sciences*, 331(4), 166-174.

Zunker, C., Cox, T. L., Wingo, B. C., Knight, B., Jefferson, W. K., Ard, J. D. (2008). Using formative research to develop a worksite health promotion program for African American women. *Women & Health*, 48(2), 189-207.

Table 4.1. Self-rated health of sample

	Frequency
Excellent	4 of 47 (8.5%)
Good	27 of 47 (57.4%)
Average	10 of 47 (21.3%)
Poor	6 of 47 (12.8%)

Notes: Open-ended interview data were grouped into the above four categories. For example, “Excellent” included participants who described their health as “excellent”, “great”, and “wonderful”. “Average” included participants who described their health as “average”, “decent”, “fair”, “so-so”, and “needs improvement”.

Table 4.2. Neighborhood Population and Poverty, High School Graduation Rates

Census Tracts	Individual Poverty Rate	High School Graduation Rate
Near-Northwest		
Tract 1	41.7%	56.7%
Tract 2	40.3%	60.6%
Tract 3	30.0% ^a	65.0%
Tract 4	39.3%	64.9%
Tract 5	30.7%	66.0%
Lower-East		
Tract 1	37.4% ^b	70.9%
Tract 2	16.7%	85.0%
Tract 3	24.9%	66.8%

Notes: Data are from the 2000 census.

^a The individual poverty rates were measured in 1999, which appears to have been but a brief respite from longer-term poverty neighborhood residents have experienced. The individual poverty rates for the near-northwest tracts 3 and 5 were 43.4% and 43.2%, respectively in the 1990 census (1989 data). These two tracts do not otherwise appear to be unique compared to the other three.

^b Tract 1 in the lower-east contains a large public housing development with over 1,000 residents and higher rates of poverty.

Table 4.3. Non-leisure physical activities (PA) according to gender

Non-leisure PA	Frequency	Women	Men
Any	45 of 47 (95.7%)	24 of 25 (96.0%)	21 of 22 (95.5%)
Active transport walking	30 of 47 (63.8%)	17 of 25 (68.0%)	13 of 22 (59.1%)
Physically strenuous paid labor	16 of 47 (34.0%)	6 of 25 (24.0%)	10 of 22 (45.5%)
Household chores	28 of 47 (59.6%)	23 of 25 (92.0%)	5 of 22 (22.7%)
Childcare	26 of 47 (55.3%)	18 of 25 (72.0%)	8 of 22 (36.4%)
Preparing meals	32 of 47 (68.1%)	23 of 25 (92.0%)	9 of 22 (40.9%)

Table 4.4. Types of foods and eating habits mentioned as healthy or unhealthy

	Frequency
Mentioned as healthy:	
Vegetables	43 of 47 (91.5%)
Fruits	33 of 47 (70.2%)
Fresh foods	24 of 47 (51.1%)
Lean meats	16 of 47 (34.0%)
Water	15 of 47 (31.9%)
Whole grains	12 of 47 (25.5%)
Cooking at home	8 of 47 (17.0%)
Vitamins	3 of 47 (6.4%)
	Frequency
Mentioned as unhealthy:	
Greasy or fried foods	26 of 47 (55.3%)
Overeating	23 of 47 (48.9%)
Eating infrequently	6 of 47 (12.8%)

Chapter 5

Conclusion

The preceding articles demonstrate that health behaviors in low-income urban neighborhoods are far more complex than an exclusively structural or individualistic approach can capture. They identify a complex set of factors to consider regarding decisions about food and physical activities. Taken together, the articles illustrate how more comprehensive approaches are needed to better understand eating and exercise behaviors in disadvantaged, inner-city communities. A brief summary and implications for the study of health behaviors and social policies are detailed below.

Summary

The first two articles of this dissertation (Chapters 2 and 3) illustrated not only the obstacles to getting food and physical activity faced by participants, but also a number of strategies they devised to address them. In the first article of this dissertation (Chapter 2), I found that participants perceived numerous problems with the grocery stores nearest to them. Many also faced difficulties getting to stores in other areas due to lack of personal transportation and shortcomings in the public transit system. But many mobilized transportation resources to get to food sources outside of their neighborhoods and shopped strategically within their neighborhoods when they could not access more distant sources. In the second article (Chapter 3), I found that many residents did not pursue outdoor physical activities because of concerns about crime and poorly maintained public spaces (deteriorating parks, sidewalks and streets, particularly in the near-northwest

neighborhood). Indoor physical activities were also difficult to engage in due to issues with local recreational facilities, lack of equipment, and lack of finances for gym memberships. However, many pursued strategies for engaging in physical activity that included sharing equipment, devising home exercise routines and avoiding areas they considered unsafe. Not all residents discussed strategies to deal with barriers, but their unique perspectives and practices highlighted the variation within each neighborhood.

The third article (Chapter 4) detailed how the knowledge, strategies and lived experiences of residents call for a reorientation of the study of eating and exercise behaviors in low-income, urban communities. Participants described how nutritional knowledge influenced their food choices and how daily necessities, such as walking for transportation and work activities (both paid and unpaid), provided sources physical activity that go unnoticed by some health researchers. Strategies to obtain satisfactory foods and levels of physical activity were shaped in the context of these unique considerations. Together, the three articles demonstrated that factors involved in eating and exercise behaviors are much more complex than simply the combination of structural barriers and individual characteristics.

Implications for the Study of Health Behavior

The importance of agency. The findings demonstrate the value of bringing agency back into discussions of health inequalities. Structural approaches cannot account for the uniqueness and variation of perspectives and actions I found among the 47 interviewees. They also cannot capture the processes involved in the formation of motivations and strategies under sometimes difficult circumstances. Although some researchers have treated low-income neighborhood residents as a uniform population (and labeled them as

the underclass, urban poor, etc.), health behaviors in this study varied tremendously according to the knowledge, emotions and creativity of participants. These variations did not strongly correlate with class, gender or neighborhood. The role of culture in shaping dispositions and decisions (both within and among geographically defined populations) must be explored along with agency. Approaches that study eating and exercise behaviors from an exclusively structural approach will miss out on these important considerations and lead to an overly deterministic outlook on diverse populations.

The continuing importance of structure. Despite the variations described above, structural constraints remained important (if not overwhelming) obstacles to food and physical activity. These barriers operated within and beyond the neighborhoods in this study. From problems with local grocery stores at the neighborhood-level, to lack of adequate sidewalks, streets and park spaces at the municipal-level, to limited budgets for food and exercise equipment (part of broader economic and political patterns), structural barriers had persistent influence in the lives of all participants. For example, the third article highlighted not only nutritional knowledge, but also the difficulty of putting it to use without financial resources and access to quality food sources. Given these numerous barriers, I find some support for the “fundamental cause” argument, that resource inequalities ultimately lead to health inequalities (Link and Phelan, 1996). This research explored some of the mediating social processes in the “fundamental cause” relationship, detailing the contexts and practices of eating and exercise.

Variation in agency – The role of neighborhood context. Rather than being a constant, the agency of participants in this study varied according to intervening factors. Most notably in this research, the relationship between agency and structure was

conditioned by neighborhood environments. Certain neighborhood features augmented the potential for agency while others diminished it. The possibilities for agency were greater in the lower-east, a community with more resources and fewer barriers than the near-northwest. By comparing the unique social environments within and around two Detroit neighborhoods, this research demonstrated that neighborhood resources and barriers exerted varying influence on agency.

The murky and traversable borders of neighborhoods typically delineated by researchers further complicate understandings of agency, structure and community contexts. Although some borders were more difficult to cross (such as the interstate highway at the western edge of the near-northwest), it is important to see neighborhood structures as embedded in wider contexts, potentially located near health resources or constraints. Nearby areas reshaped the potential for agency in significant ways. For example, areas adjacent to near-northwest residents contained food sources that most residents saw as only marginally better than the ones closest to home. Many near-northwest participants also considered the parks in adjacent communities as unsafe and deteriorating, similar to the facilities closer to their homes. Conversely, areas adjacent to the lower-east contained numerous well-maintained parks, a farmer's and a retailer's market with fresh produce and a variety of specialty food stores.

Neighborhood effects. Whether the beliefs and practices I have documented are attributable to individual or community characteristics remains an open question. However, I find the dichotomy of compositional (individual) and contextual (neighborhood) effects to be an oversimplification of the social relationships at hand. It is obviously impossible, within the scope of a single qualitative study, to disaggregate

individual from neighborhood

effects. However, ethnographers do need to examine both variation within neighborhoods and between them.

Scholarly understandings of the sources of physical activity and nutritional knowledge. Participants reported sources of physical activity and knowledge of nutrition not accounted for by many researchers. Necessities of daily life often required significant amounts of non-leisure time physical activity for interviewees. An approach to understanding exercise behaviors that emphasizes the pursuit of leisure-time activities in low-income neighborhoods fails to account for structural barriers to leisure as well as significant involvement in non-leisure time activities. Using a leisure-time measurement of physical activity as a proxy for overall energy expenditure also exposes the middle-class biases of health researchers. According to their perspectives, occupations are likely to be sedentary and automobiles ubiquitous. Although criticisms of using leisure-time physical activity as a proxy for overall physical activity are not new, this research specifically demonstrates the disjuncture between the concept of “leisure-time” and the daily lives of residents in low-income neighborhoods.

Participants also demonstrated a better understanding of nutrition than is assumed by those who emphasize health education. In many cases, knowledge was nuanced and sophisticated, covering an array of nutritional topics. These findings call into question the validity of the biomedical model's emphasis on using nutritional education to address obesity (Labonte & Robertson, 1996). Educational programs potentially misjudge the levels of nutritional knowledge low-income populations already have. This suggests that health education efforts might be misguided as opposed to addressing lack of access to

high-quality food sources, which will be discussed along with other implications for social policy below.

Future research. Future research must reevaluate the importance of agency and structure and the relationship between them. Viewing health behaviors as merely the combination of preferences, means, and the availability of resources and networks oversimplifies the relationship between structure and agency. In practice, this view does not account for intervening factors and change. Consistent with Giddens's theory of structuration (1979), I find that social actors can draw upon a multiplicity of resources to transform the structures in which they live. Community gardens and new forms exercise being pursued by participants, such as paintball, yoga and martial arts, represent not only strategic innovation, but also the evolution of social meanings and culture regarding food and physical activity.

Changing neighborhood environments, social meanings and cultures call attention to a number of considerations for future research. The proliferation of community gardens as food sources and mixed martial arts as a popular form of physical activity served as examples of these changes. Hence, static representations of individuals and their neighborhood contexts must be avoided. Attempts to account for both transformation and reproduction in neighborhoods, such as the collective lifestyle heuristic (Frohlich, Corin, & Potvin, 2001; Williams, 2003) and the health lifestyle theory (Cockerham, 2004) are necessary to better understand social processes underway in communities.

Future research in low-income, urban neighborhoods must reevaluate the necessities of daily living that lead to physical activity for many residents. The pressures

of finding transportation, work and other necessities requires measurements of physical activity flexible and broad enough to capture the unique experiences of each citizen in a given community. Nutritional knowledge research should more clearly quantify what is known and if and where knowledge deficits exist. It should also explore the sources of nutritional information. Similar to the arguments of Taylor et al. (2004) and Travers (1996), future research should adopt the perspective of nutritional inequalities as a matter of environmental justice and social inequality, as opposed to something addressed by individualistic educational interventions.

Implications for Social Policy

A number of policies could improve food and physical activity options for residents in these and other low-income neighborhoods. However, the strategies outlined in this dissertation are unlikely to be amenable to policy interventions at the macro-level. Encouraging changes to neighborhoods and structural inequalities might be more effective.

The most sustainable solution to lack of access to food would be improving the quantity and quality of options within walking distance. However, given current circumstances in which grocery store operators are reluctant to open locations in economically depressed areas with declining populations, specific public transportation services that cater to the needs and destinations of grocery shoppers are needed. These needs include adequate space and cooling for groceries and destinations such as Eastern Market (the city's largest farmer's and retailer's market). However, recent cuts to the city's bus system have decreased the potential for food acquisition—the city's bus route that served the Eastern Market district has been eliminated. Reversing these trends and

providing better public transportation is key to expanding access to both food and physical activities in the current neighborhood contexts.

Decades of “cheap food” policies in the United States have subsidized the production of unhealthy foods (Guthman, 2007). These longstanding policies have made corn and foods related to corn, such as corn-fed beef and products laden with corn syrup, far more prevalent and affordable than fruits or vegetables. As Monsivais and Drewnowski (2007) have pointed out, these high-density foods are more affordable and more resistant to inflation than low-energy-density (low-calorie). Inverting the relationship between the healthfulness and affordability of foods could be achieved by redirecting subsidizes to low-energy-density foods.

Health code violations are higher in Detroit grocery stores than suburban counterparts (Guest & Turk, 2006). The sanitation of local stores could be improved by imposing greater penalties for repeat violations. Participation in community garden programs, such as the nationally renowned Garden Resource Collaborative Program, should be subsidized to increase access to fresh produce. Recent plans to open a non-profit, community-run grocery store on the east side of Detroit might pressure nearby for-profit sources to improve their quality (Trop, 2009). Locally sourced grocery stores would improve the quality of food and also provide an engine for neighborhood gardening opportunities to expand. Although discussion of bringing large-scale farming operations to Detroit has been in the news recently (Gallagher, 2010), smaller-scale gardens would have the additional benefit of providing economic opportunities for entrepreneurial residents.

This research also has implications for policies concerning physical activity.

Programs designed to connect low-income individuals with home exercise equipment should be designed and implemented. This research supports previous findings that individuals without home exercise equipment have lower levels of physical activity (Kerr, Norman, Sallis, & Patrick, 2008). Even without access to equipment, indoor activities such as exercise yoga could be promoted through a program designed to empower neighborhood residents to become yogis. In addition to address problems accessing food, expansion of community gardening programs could also encourage physical activity. Promoting physical activity should focus on enabling both “leisure” and “productive” physical activities through neighborhood improvements. These improvements could include investments in community gardens as well as improvements to neighborhood infrastructure, such as sidewalks, parks and recreation facilities. In this sense, the fundamental economic and health problems of low-income neighborhoods are linked. Possible solutions should be linked as well.

Discussion

This research challenges academics and policymakers to learn from the strategies and actions of neighborhood residents in their social contexts. When one looks at the experiences of individual residents, it becomes apparent that scholars have understood physical activity acquisition with far too much structural-determinism. The barriers to eating and exercise that have been commonly identified are not impervious to human agency. However, the potential to pursue strategies varies, in part, according to neighborhood context. Although human agency in this research was constrained by limited resources, participants gained some measure of control through the enactment of strategies.

I find that accounting for both agency and structural contexts aides in understanding diet and exercise behaviors. Focusing exclusively on either individual or neighborhood characteristics to explain health behaviors is an oversimplified approach. The importance of both agency and community contexts suggests a theoretical framework that avoids both individualism and causal determinism. Instead, agency and structural barriers should be treated as convergent forces. Consistent with Giddens (1979) theory of structuration, agency and structure were mutually constituted. The options of study participants were limited by the structural constraints of their neighborhoods. However, my research shows that even within these constraints they were able to exercise varying degrees of agency as they devised strategies to strategies to get food and physical activity in environments that undermined health. Future research must move beyond simply cataloging the barriers and strategies faced by residents in low-income Detroit neighborhoods and work toward better understanding the ways in which the agency of individuals and their social contexts interact and can ultimately lead to new patterns of nutrition and physical activity.

Although statistics show residents of Detroit to be worse off on most indicators of diet- and exercise-related health, many participants in this study made complex efforts to cope with injurious neighborhood environments every day. They faced challenges that many academics, policy makers and suburban residents do not confront in their everyday experiences. Far from being passive victims of these obstacles, however, many residents devised elaborate strategies to obtain food and engage in physical activity. The motivations of individuals in this study included concerns about health, finance and safety, but were far more sophisticated and complex than health behavior theories or a

focus on structural barriers are capable of capturing. Hence, educational interventions to change health behaviors are misguided. Conversely, improvements to structural factors, such as neighborhoods and health policies, are necessary but insufficient steps toward improving eating and exercise behaviors. Variation in perspectives and experiences must be carefully considered to ensure that structural improvements and health interventions connect with the daily realities and potential of the individuals that they target.

References

- Bernard, P., Charafeddine, R., Frohlich, K. L., Daniel, M., Kestens, Y., & Potvin, L. (2007). Health inequalities and place: A theoretical conception of neighborhood. *Social Science & Medicine*, 65(9), 1839-1852.
- Cockerham, W. C. (2005). Health and lifestyle theory and the convergence of agency and structure. *Journal of Health and Social Behavior*, 46, 51-67.
- Frohlich, K. L., Corin, E., & Potvin, L. (2001). A theoretical proposal for the relationship between context and disease. *Sociology of Health and Illness*, 23(6), 776-797.
- Giddens, A. (1979). *Central problems in social theory: Action, structure and contradiction in social analysis*. London, UK: Macmillan.
- Gallagher, J. (2010). Is urban farming Detroit's cash cow? *Detroit Free Press*, March 21, 2010.
- Guest, G., & Turk, V. (2006). The quality of urban life: Food violations higher in Detroit. *Detroit Free Press*, October 24, 2006.
- Guthman, J. (2007). Can't stomach it: How Michael Pollan et al. made me want to eat Cheetos. *Gastronomica*, 7(3), 75-79.
- Kerr, J., Norman, G. J., Sallis, J. F., & Patrick, K. (2008). Exercise aids, neighborhood safety, and physical activity in adolescents and parents. *Medicine and Science in Sports and Medicine*, 40(7), 1244-1248.
- Labonte, R., & Robertson, A. (1996). Delivering the goods, showing our stuff: The case for a constructivist paradigm for health promotion research and practice. *Health Education & Behavior*, 23(4), 431-447.
- Link, B. G., & Phelan, J. C. (1995). Social conditions as fundamental causes of disease.

Journal of Health and Social Behavior, 36(Extra Issue), 80-94

Monsivais, P., & Drewnowski, A. (2007). The rising cost of low-energy-density foods.

Journal of the American Dietetic Association, 107(12), 2071-2076.

Taylor, W. C., Poston, W. S. C., Jones, L., & Kraft, M. K. (2006). Environmental justice:

Obesity, physical activity, and healthy eating. *Journal of Physical Activity and Health*, 3(1), S30-S54.

Travers, K. D. (1996). The social organization of nutritional inequalities. *Social Science*

& Medicine, 43(4), 543-553.

Trop, J. (2009, March 7). Coalition plans two food stores in Detroit. *The Detroit News*.

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