Towards a Holistic Understanding of Obesity among African American Women

by

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Class of 2015

A thesis submitted to the
faculty of Wesleyan University
in partial fulfillment of the requirements for the
Degree of Bachelor of Arts
with Departmental Honors in the Science in Society Program

Middletown, Connecticut

April, 2015
Acknowledgements

To Professor Anna Geltzer, who took the time and the effort to give me guidance, assurance, support, encouragement and feedback throughout this entire project. I cannot thank you enough for your honesty, sincerity and wise counsel.

To Emily Moody, whose thoughtful and careful feedback guided me through the entire writing and rewriting process.

To Mom, Pa, Alex and Arianna, who are my comfort and my solace whenever I need them.

And to Janika, who makes it all okay at the end of the day.
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**Introduction**

Obesity in the United States has ballooned from a relatively controlled condition to a full-blown epidemic\(^1\). While only 15% of American adults were obese in 1990, the current rate of 35% represents a more than a 100% increase in prevalence within 25 years. Among African-American women, however, the rate of obesity is particularly staggering: at 58%, African American women have, far and away, the highest prevalence of obesity of any demographic in the country (CDC, 2014; Flegal et al., 2014).

Examining more detailed population-level obesity statistics stratified by race, sex and income (Fig. 1), one finds that low-, middle- and high-income\(^2\) black women each have higher rates of obesity than any other racial/ethnic group of women or men, regardless of income level. One also finds a more puzzling trend: that low-income black men have the second lowest rate of obesity of all other race-gender-income groups, while low-income African American women have the single highest rate (CDC/NCHS cited in Pew Research Center, 2013). Taken together, these findings suggest that the particularly high rate of obesity among African American women may be the result of a complex web of social, cultural and economic factors that influence black women in ways distinct from African American men.

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\(^1\) The World Health Organization (WHO) formally recognized obesity as a global epidemic in 1997 (James et al., 2012).

\(^2\) *High income* = 350% or more of poverty level, *medium income* = 130-349% of the poverty level, and *low income* = less than 130% of the poverty level (Pew Research Center, CDC/NCHS)
In considering the prevalence of preventable health conditions like obesity in relation to different population demographics, it’s easy to make associations with single demographic factors, such as race/ethnicity, sex or socioeconomic status. Such associations are often built upon conscious or unconscious stereotypes about which diseases occur among which groups of people (e.g. diabetes as a “black disease,” or HIV as a “gay disease”). In major news media (e.g. Granderson, 2012 on CNN.com; Bellafante, 2013 in the New York Times, see Fig. 1) and in popular entertainment (e.g. Greenberg et al., 2003), obesity has been alternately (and simultaneously) been

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3 As discussed in the following chapter, Greenberg found that television shows are much more likely to have obese black characters than they are to have obese white characters.
portrayed as an African American epidemic and an epidemic of the poor. Speaking solely in terms of raw statistics, these portrayals aren’t exactly incorrect: African Americans do have an overall higher rate of obesity than other racial/ethnic groups, and poverty in the general population is associated with obesity to a certain extent. In considering that poverty has the exact opposite association with black men and women’s rates of obesity, however, we should realize that the interrelationship of specific demographic factors such as race, sex in relationship to obesity is no simple matter. The fact that low-income black women have the highest rate of obesity of any group while low-income black men have a rate of obesity that’s only 1% higher than the very lowest rate (which occurs among high-income white women) suggests that it’s in the intersections between social, cultural and economic factors that we find the most telling explanations—and, ideally, solutions—for preventable health issues such as obesity.

In Obesity Epidemic, Poverty Is an Ignored Contagion

MARCH 25, 2013

Fig. 1 (Bellafante, 2013 printed in the New York Times

4 CDC/NCHS data show that the poverty and obesity have an inverse relationship, but only past a certain threshold of poverty. Those at the lowest tier of poverty (below 100%) have a lower rate of obesity than those in the next highest tier, but the relationship is inverse as the tiers go up from the second-poorest demographic to the least poor.
As such, this study is an exploration and an analysis of intersections between the cultural norms/values, practices, demographic trends\(^5\) and socioeconomic factors that underlie the disproportionately high prevalence of obesity among African American women. For clarity’s sake, I will split these factors into two groups, which will serve as the themes of my first two chapters. My first chapter will discuss the specific demographic trends of multigenerational households, single motherhood and adolescent motherhood, as well as the cultural norms/values/expectations of traditional cuisine and food culture, selflessness and caregiving responsibilities, expectations of female strength, and female body size ideals. My second chapter, on the other hand will discuss the socioeconomic factors\(^6\) of food access, racially targeted food advertising, neighborhood disorder and racial discrimination.

Rather than viewing these factors as separable and discrete, I advance an intersectional view of cultural and socioeconomic factors which emphasizes the degree to which these factors amplify one another and work in tandem to promote obesity among African American women. For example, I consider how caregiving responsibilities and expectations of female strength intersect with racial discrimination and poor access to healthy foods to affect women’s diets, and how perceived neighborhood disorder (lack of safety and aesthetic appeal) works together with female body size ideals and hair care concerns to inhibit engagement in physical activity. Through focusing both on the independent effects of these factors and on the

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\(^5\) “By demographic trends,” I mean population-level patterns with respect to factors such as living arrangements and family organization.

\(^6\) I’m using the term “socioeconomic factors” to refer to broader social, economic and structural elements such as neighborhood safety, racial discrimination and the types of food stores accessible in a given neighborhood.
effects produced when multiple factors interact, I aim to promote an intersectional understanding of preventable health issues such as obesity, as well as a more holistic approach to designing interventions that address these issues.

In tracing the interactions between such seemingly disparate factors as racial discrimination, caregiving responsibilities and lack of supermarket access, I will draw upon developmental psychologist Urie Bronfenbrenner’s social ecological model (SEM) of human development. Bronfenbrenner’s SEM is a theoretical framework for understanding human development and health as products of multiple, nested levels of influence. These levels include: 1) the individual; 2) the microsystem (groups and settings with which the individual has face-to-face contact, such as the family, school and the workplace); 3) the mesosystem (interactions between different microsystems, such as the interaction between family and the workplace); 4) the exosystem (e.g. neighborhood community, local politics and industry--forces and entities with which the individual only indirectly interacts, but which still influence the individual, the microsystem and the mesosystem); 5) the macrosystem (the overall pattern of beliefs within a given culture or subculture exemplified by its laws, customs and values); and 6) the chronosystem (the element of time across all of the other layers of influence) (CDC; Bronfenbrenner, 1979). The different layers of the SEM and their interactions can be visualized by the following diagram:
The SEM is a particularly useful framework for understanding complex health issues like obesity because it posits relationships not only between the individual and their different systems, but also between the systems themselves. For instance, the SEM would consider not only how family (microsystem) affects an individual’s food purchasing choices, but also how characteristics of the community (microsystem) and cultural values (macrosystem) affect the individual’s family and the family’s food preferences via a dynamic, reciprocal relationship (mesosystem). Thus, the SEM is a uniquely holistic lens for understanding the complex nature of obesity among African American women. Embracing a complex view of obesity, as the SEM demands, helps us avoid the trap of blaming black women or African American culture for obesity,
which is not only misguided, but stigmatizing and actually detrimental to weight loss efforts (Wott and Carels\(^7\), 2010; Puhl and Suh, 2015; Puhl and Heuer, 2010).

Through considering individuals’ values, beliefs and behaviors in the context of their environments, and through viewing their environments as multi-layered and reciprocally interconnected, the SEM offers the holistic perspective necessary for understanding and successfully addressing an issue as multicausal as obesity. Using the SEM—mostly implicitly, but sometimes explicitly—to frame this study, I hope to move the conversation about obesity beyond an exclusive focus on individuals, cultural values/ norms or socioeconomic forces and instead integrate these elements into a broadly inclusive and interconnected understanding of the causes of and solutions to obesity among black women.

Before attempting to understand or address obesity in any population, however, we must consider the actual meaning and implications of obesity as a socially constructed health condition. According to the World Health Organization (WHO) and the Centers for Disease Control (CDC), obesity is the condition of having a body mass index (BMI) of over 30\(^8\). BMI is a ratio of height to weight that is generally seen as a reliable indicator of body fat percentage, but it is not a universally agreed upon way of measuring obesity. Opponents of using BMI to detect obesity have some important criticism. First, they point out that using a simple body mass-to-height ratio ignores the different densities of fat, bone and muscle. As a result,

\(^7\) Wott and Carels (2010) showed that overweight stigma was associated with significantly greater levels of depression and significantly poorer weight loss outcomes among participants in their weight loss study.

\(^8\) Healthy BMI is considered as falling in the range between 18.5 and 24.9. Overweight is defined as having a BMI between 24.9 and 29 ("Why Use BMI?").
muscular and large-framed individuals without significant body fat can have BMIs which designate them as overweight or obese. In addition, critics of BMI note, guidelines for healthy BMI are based on old studies using exclusively European subjects. Thus, the BMI values at which individuals are at higher risk of developing the diseases associated with either excessive or insufficient body weight may very well be likely for different groups, as indicated by the fact that various countries (e.g. Taiwan, Singapore, Japan) use different BMI guidelines to indicate healthy and unhealthy body weight (Devlin, 2009).

As a matter of fact, the formula for BMI (derived by dividing a subject’s mass by the square of their height\(^9\) and originally proposed in the early 19th century by the Belgian mathematician Lambert Adolphe Jacques Quetelet) was never intended to measure the fatness or weight-related health of individuals. Rather, it was considered a quick way of estimating obesity *within a population* and for the purpose of allocating resources (Devlin, 2009). It wasn’t until 1972 that physiologist Ancel Keys wrote an influential *Journal of Chronic Diseases* article, arguing that BMI was the best body fat percentage calculation available using a simple weight-to-height ratio, that BMI became used as a measure for individuals (Oransky, 2004). In light of this history, and in light of the various conceptual issues involved with BMI, many medical and public health professionals propose alternative measures, such as waist circumference, waist-to-hip-ratio or body fat caliper measurements. In many ways, these measures are indeed superior, as they more directly assess abdominal fat, which

\(^9\) From a physiological standpoint, there’s no reason to square a subject’s height to determine body size. Quetelet’s accounts indicate that the step of squaring subject height was simply a means of getting a formula that fit his collected data (Devlin, 2009).
is considered more harmful than subcutaneous fat (fat that can be “grasped with your hand”) because it is more associated with metabolic disturbances, cardiovascular disease (the leading cause of death in the United States) and type II diabetes (CDC).

Nonetheless, BMI has been shown to be a relatively reliable indicator of body fat percentage and associated health risks for most people (with the exceptions of pregnant women, individuals with high muscle mass, and perhaps those with abnormally large bone or dense bone structures), and calculating BMI is an easier and faster procedure than any of the aforementioned alternatives. (CDC: “Why Use BMI?”; “Abdominal Fat and What to Do About it”; Cole and Lobstein, 2012). Thus, the current BMI-based definition of obesity—which is the definition employed by the interventions analyzed in this study, and virtually all obesity interventions with weight loss as the dependent measure—is the definition that this study will employ.

Perhaps more important than justifying the use of a weight-related, BMI-based definition of obesity is explaining the implications of this definition for evaluating study efficacy. Because the most widely used measure of obesity is based on BMI, which is a ratio of weight to height, the obesity intervention literature typically evaluates average participant weight loss as the primary measure of study efficacy. In order to decrease BMI, an individual must either gain height or lose weight. Given the fact that only one of these options is realistic, almost all that obesity interventions use amount of weight loss as their dependent measure.

Looking to any meta-analysis of obesity interventions, one sees that most studies define intervention success as either the attainment of statistically significant weight loss or clinically significant weight loss. Achieving statistically significant
weight loss is not necessarily beneficial for health, because it simply indicates weight loss that was high enough in the intervention group compared to the control group for that weight loss to not be due to chance. Clinically significant weight loss, on the other hand, is weight loss of at least 5% of total starting weight which is associated with a meaningful risk reduction for serious weight-related health conditions such as diabetes and cardiovascular disease. Given the incredibly disproportionate rates at which African Americans experience these conditions (twice the prevalence of diabetes compared to white adults; the highest rate of hypertension and the highest death rates for heart disease and stroke), clinically significant weight loss seems like an optimal goal for obese and overweight African American participants in weight loss trials (CDC, 2015). As will be discussed in the third chapter, there are, unfortunately far fewer studies that achieve clinically significant average participant weight loss than studies that achieve statistically significant average participant weight loss.

Improving rates of weight-related diseases among African Americans through reducing obesity is also beneficial for the fiscal health of the entire country. Overall, people of color make up over half of the uninsured population, despite being only about forty percent of the total population (“Uninsured Rates,” 2013). Obesity-related healthcare costs currently comprise nearly a quarter of all healthcare expenditures in the United States, at over $190 billion dollars in 2005 (Marder and Chang, 2006). Despite the lack of estimates of the specific costs of obesity among uninsured Americans, it is reasonable to assume that, given the higher rates at which uninsured individuals utilize emergency room services and the links between obesity and
hospitalizable conditions (such as diabetes mellitus and stroke), there is a significant
financial cost associated with the uninsured obese population that is absorbed by
public expenditures, and thus a significant financial savings associated with reducing
rates of preventable diseases among African Americans.

Obesity has been linked with a wide variety of chronic health conditions
including cancer, liver disease, gallbladder disease, sleep apnea, infertility,
osteoarthritis and depression. All of these illnesses drain hospital resources, clog
emergency rooms and long-term care facilities and cause immense amounts of
disability and human suffering. Obesity is also linked with life expectancy reductions
of between two to fourteen years, depending on the severity of obesity. As a point of
comparison, severely obese individuals (those who have “class III” obesity, which is
a BMI of 40 or higher) face similar reductions in their years of life year as do regular
cigarette smokers (Kitahara et al., 2014).

Moreover, studies of individuals with obese friends and family members
indicate that there are “social network effects” of obesity, such that having an obese
acquaintance or loved one within one’s social network is associated with a higher risk
of becoming obese oneself. Christakis and Fowler (2007) showed that individuals
with a friend who had recently become obese had a 57% higher chance of becoming
obese. They also demonstrated a 40% increased risk among siblings of an individual
who had become obese and a 37% increase among the spouse of someone who was
obese. In other words, obesity seems to “spread” through social networks such that a
high number of obese individuals in a given community poses a risk to even further
increases in that community’s obesity rate (Christakis and Fowler, 2007).
Adopting a social justice perspective, obesity among African American women is incredibly important, as it represents the embodiment of social and structural inequalities with deep historical roots. It is important to note that racism and discrimination are still codified into state/federal laws and social, political and economic structures in both subtle and not-so-subtle ways. Voter ID laws, for instance, might be seen as direct efforts to disenfranchise black voters, because the vast majority of research indicates that voter fraud occurs at an incredibly low rate in the United States, that voter ID laws have negligible effects on reducing fraud, and that a much higher percentage of voting-eligible black citizens lack photo ID than do Caucasians¹⁰ (Minnite, 2010; Stewart, 2013). Other examples include the fivefold rate at which African-Americans are convicted of criminal charges compared to whites (Harris and Beckett); the fact that Blacks receive, on average, 20% longer jail sentences for the same crimes as do whites (Hansen, 2013); and “stop and frisk” laws in New York City, which led to the stopping and searching of 84% Black and Latino people, despite the fact that they make up only 54% of the city’s population (“2011 NYPD Stop and Frisk Fact Sheet,” 2012).

A social justice perspective compels us to consider obesity as an injustice that is part and parcel of poverty and the criminalization and disenfranchisement of black men and women alike. These issues may not seem directly associated with obesity,

¹⁰ According to a report by the NYU Brennan Center for Law, this is because many people of color (including those in urban residences) live further away from ID-issuing offices than do white voting-eligible individuals, in addition to relying on public transportation, which doesn’t typically reach these offices. The largest concentration of black voting-eligible adults in Knoxville, TN, for instance, live in the city center, which is 11 miles away from the nearest photo ID office. As a result, about 25% of eligible black voters and 16% of eligible Hispanic voters lack photo ID compared to 8% of Caucasian voters (Gaskins and Ayer, 2012).
but they are interconnected. Consider, as an example, teenage pregnancy. Teenage is an impediment to high school graduation and college attendance; lack of education leaves one vulnerable both to poverty and to falling into the criminal justice system; poverty and incarceration threaten the welfare of families, the ability to secure employment and access to healthy foods; and a lack of access to healthy foods is very clearly implicated in the development of obesity. The intersections of these inequalities are multiple and multi-directional, and they are not limited to the ones listed above. Within this framework of social justice, therefore, tackling the high rate of obesity among black women goes hand-in-hand with tackling the myriad other injustices and inequalities that define their lives. Before attempting to “tackle” obesity among black women, however, we must understand it.

Works Cited


Ch. 1: Understanding the Links between Culture, Family and Obesity

To understand how obesity has become so prevalent among African American women, one must consider how African American culture and demographic trends
interact with broader structural factors and socioeconomic contexts (e.g. residential segregation, racial discrimination and poverty) to influence weight-related health behaviors. While cultural values/norms, demographic trends, structural factors and socioeconomic context are difficult if not impossible to separate, this chapter will focus on how cultural norms/values and demographic trends in particular contribute to obesity among black women. More specifically, this chapter will examine the demographic trends of 1) multigenerational households and 2) single/adolescent motherhood, and the cultural values of a) female selflessness and strength, b) larger female body size ideals and c) traditional foods/eating practices as they relate to the disproportionately high percentage of African American women who are obese.

Before discussing these cultural factors and demographic trends, it’s important to note a couple of dangers that arise when trying to discuss disease in the context of culture. The first is the risk of blaming and pathologizing a given culture in the process of trying to relate it to a preventable disease, such as obesity. In this instance, trying to forge links between African American culture and obesity may imply, for instance, that African American culture is itself responsible for obesity through its culinary traditions, female body size ideals or some other value, practice or norm. Such an argument is not only stigmatizing and discriminatory; it is also inaccurate. Culture does not exist in a void, and it is not the only factor underlying human behavior. African American culture, like any other culture, arose within specific historical, social and political circumstances, and it continues to be shaped by and respond to these circumstances. Obesity can and should be understood in terms of unique African American cultural norms and values, but these norms and values can
themselves only be understood in the context of society-at-large. Therefore, the relationships drawn between African American culture and obesity must be viewed in the broader context of the social, economic and structural factors that also influence the weight-related health behaviors of black women. These social, economic and structural factors are the focus of Ch. 2, but they will inevitably be discussed in this chapter as well.

The second issue at hand is the fact that “African American” is not a homogenous cultural grouping. As stated in the introduction, this study is utilizing the Census Bureau definition of the term “African American” primarily because this is the definition most commonly used in public health literature, and specifically in public health literature about obesity. But “African American” is a broad categorization that includes people with both shared and distinct values and backgrounds which vary depending on geographical location, socioeconomic status, religious affiliation and multiple other demographic factors. As such, trying to speak about “African American culture” with respect to obesity in broad terms can be difficult, because much of the public health research on obesity and race/ethnicity labels all black people African American, despite the variety of national origins, cultural beliefs and racial identities held by individuals with “origins in the black racial groups of Africa” (U.S. Census Bureau, 2010).

That said, across the various subgroups that comprise people Census-designated as African American, there are some foundational cultural elements. One key facet shared across these groups is familism, or an orientation towards prioritizing family needs over individual needs. Within the behavioral sciences,
familism is thought to have three dimensions: (1) the attitudinal, expressed through attitudes, values and beliefs that prioritize the family over the individual; (2) the behavioral, expressed through actions and decisions influenced by familial bonds and goals and (3) the structural, expressed through the physical arrangement of family networks (Steidel and Contreras, 2003; Valenzuela and Dornbusch, 1994). A multitude of sociological and psychological studies have demonstrated relatively high levels of expressed familism among African Americans compared to European Americans (e.g. Horton, 2007; Kim and Knight, 2007; Vargas and Kemmelmeier, 2013). Familism is a foundational element of African American culture in the context of obesity because it helps explain some of the demographic trends (such as multigenerational households) and cultural values (such as expectations of female caregiving and selflessness) that relate to obesity among black women.

Beyond familism, there are a handful of other foundational elements of African American culture that merit consideration when discussing obesity. These elements include a high value placed on children and motherhood; the centrality of women in leading households and maintaining family traditions; an emphasis on spirituality and religion over materialism; a preference for group activities over individual ones; filial piety (respect towards elders); and reliance upon extended family for child care assistance, economic welfare and health care (Aschenbrenner, 1973; Bailey, 2002; Stack, 1974; Nobles, 1985). The high value placed on motherhood and the special importance of mothers in black families ground the cultural values of female caregiving and selflessness discussed later in this chapter. The emphasis that African American culture places upon spirituality/religion and the
preference for group activities over individual ones relate to body size ideals and cultural eating practices, in addition to informing the design of anti-obesity interventions for black women. And filial piety and reliance upon extended family members for support help explain the ubiquity of multigenerational households in African American families, which is the focus of the following section.

**Multigenerational Households**

Compared to European Americans (13%), far more African Americans (23%) live in multigenerational households, or households which include family members beyond the two-generation nuclear family unit of parents and children (Pew Research Center, 2010). Multigenerational households can be understood as stemming from a variety of factors, including economic constraints, filial piety, and dependence upon extended family for child care and home maintenance (Feinauer et al., 1987). This type living arrangement can be a source of support and a salutogenic\(^\text{11}\) factor for many black women, but it can also be a source of stress and a barrier to making the dietary changes that many women need to make in order to maintain or achieve healthy weight. Although few if any studies have looked specifically at the role of multigenerational households in promoting obesity among black women, this familial factor may contribute to obesity through influencing food choices, stress levels and the ability of black women to focus on taking care of themselves as opposed to taking care of their family members.

\(^{11}\) Salutogenic, or “health-promoting” is taken from Antonovsky’s term salutogenesis, which is a concept denoting factors—particularly factors related to stress, health and coping—that promote human health and well-being (Antonovsky, 1979).
On the one hand, the presence of extended family and family members from other generations (i.e. parents and grandparents) can relieve some of the burdens of child care and homemaking for African American mothers, both single and married. If these family members work or are old enough to receive social security, they can provide economic support for the household and reduce the financial stress faced by many single black female heads of household. These family members can also be sources of emotional support, and their presence can afford mothers--especially single mothers--an increased ability to be active outside of the home (Taylor et al., 1997).

African American and Latina caregivers report receiving more support from family members than do European American ones (Pinquart and Sorensen, 2005), and social support from family members has been associated with eating a healthy diet (Thrasher et al., 2004). To the degree that it can be a source of physical, psychological and economic support, and to the degree that this support has been linked with healthier diet, living in a multigenerational household might be viewed as an obesity-preventing factor in the lives of many African American women.

On the other hand, living in a multigenerational household may pose challenges to dietary change or healthy diet maintenance by attenuating the amount of control that black women have over food purchasing and preparation. Older family members may be more attached to eating traditional African American foods, which are frequently high in saturated fat, cholesterol, sodium and calories (Mitchell, 2009). Older family members may themselves be the ones preparing these foods or purchasing the ingredients for these foods, or they may simply demand or express a preference for them. Focus group research (Airhihenbuwa et al., 1996) with different generations of
African Americans has demonstrated that older participants are more likely to believe that their food choices are influenced by customs and history than are younger participants, suggesting that family members from older generations may be the ones most attached to eating traditional African American foods. Among the statements made by older focus group participants in Airhihenbuwa’s study were, “Blacks eat what they are accustomed to eat,” “[Blacks eat] what they were raised to eat,” “Food practices are handed down from generation to generation. Once your body gets used to a particular type of food, it is not easy to switch to another type,” and “Blacks eat spicier and fried food.”

Research has demonstrated a positive relationship between age and BMI among African Americans (Blanchard, 2009; Shankar et al., 2000; Sutherland, 2013), further suggesting that older African Americans may prefer unhealthy traditional foods. Other potential explanations for the positive relationship between age and BMI among older blacks include lower levels of physical activity and slower metabolism rates. But given the fact that this positive relationship between age and BMI does not exist for the general U.S. population (Newport, McGeeney and Mendes, 2012), even though older Americans of all races/ethnicities report lower rates of physical activity and have slower metabolisms than younger and middle-aged individuals (Sallis, 2000), diet seems like a likely candidate for explaining the higher rates of obesity among older African Americans. If this is indeed the case, then the dietary habits and preferences of older African Americans living in multigenerational households could create barriers to healthy diet for some black women.
Furthermore, the burden of caring for multiple generations of family members can both lead to weight gain and impede weight loss. One African American woman, in trying to explain how she became obese in the first place, stated that, “My aunt... I was her caretaker for about 2½ years. During that time your activity, your lifestyle, your everything just tends to change.” (Befort et al., 2008). Another woman, speaking about the stresses of balancing work with caring for her daughter and elderly mother, admitted that, "The only thing that I had time to do for myself socially to feel good was eat" (Walcott-McQuigg, 1995). Kumanyika and colleagues (1992) have observed that African American women are less inclined to assume the self-centered posture that would allow them to put their health and their dietary preferences over those of their family members. In the case of African American women living in a multigenerational household, the need to care for both children and other family members may further impeded the adoption a healthier diet or engagement in physical activity, both because these may seem like “selfish” actions and because caregiving responsibilities may simply take up too much time. Indeed, this speculation is supported by findings from Im and colleagues’ (2012) internet forum-based study of black women’s attitudes towards physical activity, in which many participants reported thinking of physical activity as “self-indulgent” or “luxurious” behavior because of their family obligations. One women, for instance, stated, that, “The thing that inhibits me from participating more in physical activity is a sense of guilt over doing something for myself... I have to convince myself that I deserve to be healthy and I deserve to spend time on myself.”
Co-residing with other generations of family members and extended kin may have negative economic consequences as well. Analyses have shown that, in single mother households (which, as will be discussed in the following section, are exceedingly common among black women), the relative most frequently living in the household is the mother’s own mother, and in 50% of these cases, both the single mother and her mother have children under 18 years old in the home. These “doubled up” pairs of mothers have the lowest socioeconomic status of all single mother-headed households among African Americans (Winkler, 1993). In these families, women likely face even greater economic barriers to purchasing more expensive but healthier items like fresh produce and whole grain bread, assuming they even have access to stores that sell these foods. Among families that don’t live near a grocery store, the economic barriers posed by living in “doubled up,” multigenerational female-led households may also keep women from affording the public or private transportation necessary to reach sources of healthy food. As the next section explains, these “doubled up” households are very common because single mother households are very common, and becoming a single (or adolescent) mother may, on its own, be related to the prevalence of obesity among black women.

**Single Motherhood and Adolescent Motherhood**

African American women become single mothers at the highest rate and teen mothers at the second highest rate of any racial/ethnic group in the United States (Annie E. Casey Foundation, 2014). Single motherhood and adolescent motherhood contribute to the prevalence of obesity among black women in significant ways, although the links between these two kinds of motherhood and obesity are not all direct. In considering
these links, I will discuss both direct relationships (such as the increased risk of excessive and rapid gestational weight gain among pregnant adolescents) and mediated relationships (such as the links between single motherhood and poverty, and poverty and obesity). Whether direct or indirect, though, the relationships between teenage motherhood, single motherhood and obesity are substantive and demand scrutiny.

African American women are more likely to become single mothers than women from any other racial/ethnic group in the country. 71.4% of births among African American women in 2013 were to unmarried women, compared to 40.6% of births among all women (CDC, 2014). In addition, 67% of black children live in single parent households, compared with the 25% of non-Hispanic white children and 35% of all children (Annie E. Casey Foundation, 2014), and 85% of these children living with a single parent live with their mothers (US Census Bureau, 2013). As mentioned earlier, single black mothers often receive child care, homemaking assistance and economic support from their own parents, siblings or extended family members. To the degree that extended family support helps lessen the caregiving burdens of single black mothers, African American family values may help alleviate the burdens of single and adolescent motherhood and offset some of the health risks that may accompany the stress and time demands of being a single mother, such as obesity. Nonetheless, single motherhood can still prove to be a highly stressful experience that taxes the health—dietary and otherwise—of many African American women.

Indeed, epidemiological studies have repeatedly linked single motherhood with poorer health status. A variety of studies have shown that unwed mothers report lower perceived levels of health than do their married counterparts (Rousou et al., 2013), and
that they have a higher prevalence of obesity and overweight specifically. An analysis of data from the National Health and Nutrition Examination Survey III (NHANES III) collected over 60 years from 1,446 women revealed that single mothers were significantly more likely to be overweight or obese and to develop diabetes and cardiovascular disease than were partnered mothers. In this specific study, unmarried mothers were more likely to be non-Hispanic black than non-Hispanic white, allowing us to draw a tenuous link between single motherhood and obesity among African American mothers in particular (Young et al., 2005).

Moreover, single motherhood places an economic strain on many black women, who are forced to support themselves and their children without the consistent economic contributions of a spouse or partner. Census data show that the highest rate of poverty among African Americans (and among all other groups of Americans that are measured and defined by the Census\textsuperscript{12}) occurs among female-led black households with no male present: while the overall African American poverty rate is 27%, single black mothers have a rate of 47% (U.S. Census Bureau, 2014). As stated in the previous section, single black mothers who live with their own mothers have an even higher rate of poverty. And as stated in the introduction, low-income black women have the highest rate of obesity of any group—male or female, black or nonblack, rich or poor—in the United States. The correlation between single motherhood and poverty, and poverty and obesity, among black women does not allow us to conclude that single motherhood causes obesity. But given the relatively high proportion of single black mothers who are poor and the relatively high proportion of poor black women who are obese, it

\textsuperscript{12} The Census Bureau does not provide a stratified poverty rate for American Indians/Alaskan Natives, although the Pew Research Center placed the estimate at 26% in 2012 (Krogstad, 2013).
seems more than likely that there is also a relatively high proportion of single black mothers who are both poor and obese.

A second important demographic trend contributing to obesity among black women is adolescent pregnancy. Among girls ages 15-19 in the United States, African Americans have the second highest rate of adolescent pregnancy, at 43.9 births per 1,000 females in 2012 (CDC, 2014). Research indicates that pregnant adolescent females are twice as likely to experience rapid gestational weight gain (defined as gaining 40 lbs or more during pregnancy) than are pregnant adult females, and are also more likely to retain this weight after giving birth (Kac et al., 2004; Benicio et al., 2004). Rapid gestational weight gain has been correlated with significantly greater increases in BMI and weight gain retention in the years following birth than average or slow gestational weight gain. Segel and McAnarney (1994), for instance, found that African American women who gave birth during adolescence demonstrated an average 19.9% BMI increase three years after delivery among rapid gestational weight gainers, compared to a 3.4% increase among slow gainers and a 13.2% increase among average gainers; they also found that adolescent girls with high BMIs before pregnancy became massively obese during pregnancy and remained this way three years post-delivery. In addition, a large comparative study of black (n = 1385) and white (n = 1273) women showed that racial differences in obesity were the smallest among women who had given birth for the first time as teenagers, with a mean BMI difference of 0.5 (and consistently higher BMIs) among women who gave birth between 12-18 years old or 19-21 years old compared to 3.6 for women who gave birth between 22-30 years of age and 2.4 for women who never gave birth (Burke et al., 1992). Moreover, other studies
have shown that African American adolescents who are obese prior to getting pregnant become even more obese after pregnancy begins, and retain this weight long after delivery (e.g. Elfenbein, 2003; Segel and McAnarney, 1994, cited above).

Both single motherhood and adolescent pregnancy are associated with elevated levels of stress, which has been correlated with an increased incidence of obesity via a sort of *stress-obesity pathway*. This pathway can be described as follows: the experience of stress leads to the increases cortisol release. Cortisol, which is a steroid hormone produced by the adrenal glands, causes higher blood sugar levels, decreased immune system function, increased appetite, cravings for fat and sugar and a rise in blood pressure. These changes lead to overeating, increased inflammation, the redistribution of fat stores and circulating fat into the abdomen (leading to abdominal fat deposition) and various other physiological changes that have been shown to significantly increase obesity risk (Elfenbein and Felice, 2003; Zouari, 2011; Kalil and Kunz, 2002; Molborn and Morningstar, 2009).

In studying women who became obese after a stressful life event compared to women who did not develop obesity because of a stressful event, Vicennati et al. (2009) showed that women with stress-related obesity had significant higher urinary cortisol levels, in addition to gaining a significantly larger amount of weight in a shorter period of time. The connection between rapid weight gain and cortisol levels can also be explained in terms of HPA (hypothalamic-pituitary-adrenal) axis overstimulation, which is itself linked with both abdominal fat distribution and metabolic syndrome, a combination of symptoms involving increased blood pressure, a high blood sugar levels, excess body fat around the waist and abnormal cholesterol levels (Mayo Clinic).
Stress has repeatedly been linked with overeating (e.g. Oliver et al., 2001; MacDonald, 2008), and while overeating is itself a cause of obesity, understanding what and how African Americans eat, and not just how much they eat, is of vital importance in understanding obesity.

**Traditional Foods, Contemporary Diets and Eating Practices**

A significant amount of the literature on the etiology of obesity has focused on personal eating habits and food choices as the primary determinants of weight gain. This section will explore these individual factors, but it will shift the emphasis away from personal responsibility and towards food preferences and dietary habits among African Americans as they relate to broader historical, cultural and social forces. Given the degree to which obesity-related literature and anti-obesity interventions have focused on the individual as the nexus of food choice, I make the case that cultural aspects of eating and cooking among black women deserve greater focus because they strongly women’s dietary choices and eating habits in ways that are, to some degree, beyond the control of individuals. As this section demonstrates, changing eating habits among African American women requires recognizing the value that women and families in general place on food and the meaning that food has in daily life.

Among the most important aspects of African American food culture that relate to obesity are the dietary qualities of traditional foods, the importance of food as a connection to African American culture, and the meaning of food and eating in family life. All of these aspects are rooted in the history of slavery, African culture and contemporary African American life, and all of them shape women’s attitudes towards and relationships with food. Using a combination of historical literature, empirical
analyses of the diets of African Americans at the national/regional levels and anthropological focus group studies, we see how cultural values, norms and attitudes towards food are important considerations in pursuit of understanding obesity among black women.

As noted in the introduction to this chapter, it is impossible to discuss the history of African Americans without discussing slavery. In discussing the development of African American cuisine, as well, one must discuss the impact of this powerful and longstanding institution. Under the institution of slavery, the diets of enslaved blacks in the United States were subject to the material limitations placed upon them by their slaveholders and the plots of land on which they were confined to live. As such, the birth of African American cuisine can be seen as an interplay between these limitations, the traditional cuisines brought by slaves largely from West and Central Africa, the cuisine and ingredients available in the American South, and the time and energy demands of agricultural slave labor.

In tracing the eating practices of slaves on 17th century Virginia tobacco plantations, Mitchell (2009) notes that slaves used their familiarity with millet porridge to make Chickahominy grits from corn and were often allowed to grow their own gardens, which they planted with black-eyed peas, okra, beans, sweet potatoes, collard greens, eggplant, rice and other crops they kept in Africa. The foundation of most slaves’ diets, however, was the rations provided to them by slave holders. Accounts from slave holders indicate that these provisions consisted largely of undesired cuts of meat, cornmeal and molasses. One Alabama planter described the weekly rations of food for his slaves as “wholesome meat, usually the intestines, stomach, feet, head and
fat of the dressed pig, 5 pounds of meal for cornbread, molasses every Sunday, milk everyday, butter occasionally, and the privilege of raising chickens.” A Virginia slaveholder provided his field hands with a “peck” (sixteen pints) of corn meal, three pounds of bacon and a pint of molasses (Clark, 1996).

Slaves were rarely if ever provided with spices and flavorings. Those who worked in kitchens might be able pilfer pepper or sugar occasionally, but for the most part, these kinds of items were inaccessible. Partly due to this lack of access, and partly because slaves were typically given the undesirable “leftover” cuts of meat, enslaved blacks began using pork products and fat to season their foods. Common preparation of these pork products involved salting, curing and smoking them for flavoring and preservation. The finished product was often chopped or left whole and then stewed alongside the other ingredients to impart savory, smoky flavors to dishes. The most famous of dishes involving salted pork products is collard greens, which was cooked with ham hocks or fatback (fatty, cured, salted pork) and, to this day, remains a staple dish for many African Americans, particularly in the South (Mitchell, 2009). It appears that fatty and sodium-dense pork products, whether used in collard greens or eaten on their own, remain popular food items among many African Americans. That said, processed options like bacon, bologna, wieners and hot dogs have become increasingly common replacements for more traditional items like fatback and ham hocks (Harris and Nowverl, 2000).

The diets of enslaved blacks were also marked by the constant threat of shortages stemming from dependence upon slave masters for staple food rations. As a result, the preservation of food became incredibly important. The most popular method
of preservation was salting, which added a large amount of sodium to foods but rendered them flavorful and able to last for months without any sort of refrigeration. When time was the issue, as was often the case given the demanding hours of slave labor, one-pot meals, which were common in the countries of origin of many slaves, were made because they could be prepared in the morning and left to simmer all day (Mitchell, 2009). Frying, another technique that slaves brought with them from Africa which involves cooking foods over high heat in heavily saturated fats such as palm oil, coconut oil, was also a common method of preparation because it was fast, flavorful and imparted food with extra calories to fuel their days of forced agricultural labor (Whit, 2007).

In the context of slavery, salting, frying and seasoning foods with pig parts were all adaptive techniques. They helped enslaved blacks deal with the material scarcity and time demands that defined daily existence. But even after Emancipation and the Great Migration, when many newly freed Southern blacks (approximately one million, by 1920) moved to the urban North, these foods and cooking techniques remained central to African American cuisine (Harris and Nowverl, 2000). To this day, the dishes and preparation techniques associated with the cuisine of enslaved Southern blacks are seen as traditional black “soul food”\(^\text{13}\). Among the most well-known contemporary iterations of soul food are fried chicken, barbecued ribs, pork chops, fried fish, chicken fried steak, oxtails, collard greens cooked with ham hocks, candied sweet potatoes, potato salad, cornbread with bacon fat, and buttered grits (Mitchell, 2009). Most of these foods are high in saturated fat, sodium, sugar and/or cholesterol, all of which are

\(^{13}\) The term “soul food” was coined by cultural nationalist poet Amiri Baraka in the early 1960s as a symbol of black cultural revolution (Mitchell, 2009).
associated with increased risk of overweight and obesity when consumed in excessive amounts (CDC). And without the caloric demands of heavy agricultural labor, these foods became more obesogenic than adaptive.

Qualitative public health research indicates that even among African Americans, traditional soul foods are seen as unhealthy and at least partially responsible for their high rate of obesity. Jefferson et al. (2009), for example, found that most of the top ten foods that African Americans associated with their culture were unhealthy and acknowledged by the participants as such, including chitterlings, pig parts, pork ribs, fried chicken, greens prepared with ham hocks, souse meat (head cheese) and homemade macaroni and cheese. In addition, the majority of participants named specific, unhealthy cooking techniques or flavorings as distinguishing characteristics of these foods. For example, chicken had to be fried, greens, such as collards or turnip leaves, had to be braised with ham hocks, and Kool-Aid had to be the “red flavor” sweetened with extra sugar.

Despite the fact that many African Americans recognize traditional foods as unhealthy, many also feel that avoiding such foods would mean sacrificing their cultural heritage and restricting themselves to less flavorful foods (James, 2010; McGee, 2008). Participants in one study of low-income, urban African Americans, for instance, expressed the belief that healthy food was always “‘bland’ with ‘not too much seasoning.’” According to the authors, “Nearly all participants revealed that while ‘fried foods’ and ‘highly-seasoned foods’ might taste better, baked, broiled, grilled, steamed, and ‘bland’ foods are probably better for health” (Lucan et al., 2011).

Recognizing the health risks posed by frequent consumption of traditional African American foods, many contemporary black chefs and health professionals have proposed ways of making soul food healthier without sacrificing traditional,
comforting flavors. R&B and soul singer Patti LaBelle (also famous for her soul food cooking), for example, wrote *Patti Labelle’s Lite Cuisine* (LaBelle, 2004); the National Council of Negro Women released the health-conscious *Black Family Dinner Quilt Cookbook* (Bower, 2007); and the Southeastern Michigan Dietetic Association even released a “Soul Food Pyramid” (cited in Nettles, 2007; see Fig. 3 below).

**Fig. 3**

Creating healthier versions of soul food is certainly an important step towards addressing obesity among African American women, but the question remains: how often do African Americans actually eat soul food? As one might expect, the diets of African Americans vary by region and socioeconomic status, and soul food is obviously not what all blacks eat all of the time. A large, national-level study of the dietary patterns of 2,090 African Americans\(^\text{14}\) showed that it was primarily Southern blacks

\(^{14}\) (Roughly half with incomes at 130% of the poverty line, 51.5% from the South, 20% from the Northeast, 21.6% from the Midwest, less than 7% from the West)
who consumed soul food items on a daily basis. Outside of the South, the diets of black Americans seemed more in-line with what one might consider “non-ethnic,” non-regional foods consumed across the country: processed meats such as cold cuts, hot dogs and wieners; simple carbohydrates such as white bread, pasta and crackers; soda; and largely insufficient quantities of fresh fruits and vegetables, with fruit most commonly consumed in juice form, and potatoes--specifically french fries and potato chips--the most frequently consumed vegetable (Harris and Nowverl, 1999).

That said, 55% of blacks in the United States live in the South (U.S. Census Bureau, 2010), so there are undoubtedly large numbers of African Americans eating soul food on a regular basis. In addition, Hightower (2010) found that African Americans, on a national level, consume significantly fewer healthful foods (such as fresh produce) and significantly more unhealthful ones (such as processed meats and full-fat dairy) than do Latinos or non-Hispanic whites. In analyzing nearly 18,000 entries from the 2003-2006 NHANES 24-hour dietary recall data (also known as What We Eat In America), Hightower found that African Americans were less likely to have eaten at least a single serving of fruits (57%) or vegetables (67%) in the previous 48 hours than were whites (62% for fruits, 75% for vegetables) or Latinos (68% and 71%). African Americans also had the lowest consumption of low-fat dairy/milk products and of whole grains among the three groups. At the same time, African Americans were far more likely than members of other racial/ethnic groups to have consumed various high-fat, high-sodium foods associated with weight gain including full fat dairy, chocolate milk, macaroni and cheese, french fries, hamburgers, biscuits, cornbread with lard, pork ribs, chicken patties, chicken nuggets and bacon.
The origins of these consumption patterns relate both to African American food culture and to broader structural factors, such as poverty and food access (both of which will be discussed in Ch. 2). As stated earlier, the consumption of salted meats (ham hocks, fat back and bacon) and offal has its origins in the diets of slaves, who were forced to preserve much of their food and to use salted, leftover pig parts as flavoring. The lower rates of consumption of low-fat dairy may relate to the ubiquity of lactose intolerance among African Americans (Byers and Savaiano, 2010), although this fails to explain their relatively high intake of full-fat dairy. The dearth of fruits and vegetables in many African Americans’ diets, on the other hand, doesn’t seem to have a cultural explanation (because many traditional African American dishes involve a variety of greens, legumes and other fresh, healthy plant foods) and thus may be more related to structural and socioeconomic factors like food access.

Understanding the historical origins of African American cuisine and the dietary patterns of contemporary African Americans shows us that what many African Americans eat (soul food, salted and processed meats, high-fat dairy, insufficient fruits, vegetables and whole grains among many other items) likely related to the high rate of obesity among black women. In looking to the qualitative literature about diet among African American women, however, we see that it’s not only what they eat but how and why they eat that are important contributors to obesity. Among African American women in particular, cultural values and norms regarding cooking and eating likely contribute in substantive ways to obesity. Blixen (2006), for example, showed that some African American women feel immense pressure to prepare unhealthy traditional foods. According to one participant in Blixen’s focus group study,
Yes, I have to cook. I just got to cook like that and then I have to eat while I’m cooking. I get upset if my cousins come to my house, and they don’t eat. It is sort of insulting because I am the cook in my house. Sunday I fried 3 pounds of chicken legs and thighs, and I fried a pound of potatoes then I baked the chicken with gravy, green beans, and mashed potatoes. My cousin came over and he didn’t eat. I looked around that kitchen, and said, ‘Why did I cook all this food?’

I have to cook for everybody, I have to take care of everybody (emphasis added).

This woman’s words reflect multiple cultural expectations of black women that are relevant to obesity: being the primary provider for one’s family (“I have to cook for everybody. I have to take care of everybody.”), preparing culturally appropriate foods (“I fried 3 pounds of chicken legs and thighs”), preserving traditions like large family meals on Sunday (which is an African American cultural norm), and bringing the family together over food (Ahye, Devine and Odoms-Young, 2006). While these expectations are common to many cultures, the fact that so many African American women are heads of their households and the central figures in their families further magnifies the importance they place on cooking and providing food for their families.

In the face of these norms, many African American women undoubtedly feel pressure to place family traditions and family togetherness over their own health needs (Blixen, 2006). Women may also feel pressure to eat the food prepared by other family members and to eat any food prepared by family, no matter how unhealthy it is.

As demonstrated by the quote above (“I get upset if my cousins come to my house, and they don’t eat.”), not eating a meal prepared by family can be interpreted as offensive or an insult. Other studies have elicited similar remarks from African American women about familial pressures to eat (and, of course, to cook). In Befort et al.’s (2008) interview-based study of obese African American women, one participant stated, “All of my aunts...They would feel offended if when we came to their house,
we didn’t sit down to macaroni and cheese, potatoes and gravy, fried chicken, homemade rolls, and Koolaid." Another woman, in discussing why she has been unable to maintain weight loss, said, “The whole family comes over to our house on Sundays to eat, and I’m the one that cooks…I love to see them eat, but I’ll lose those 5 pounds, and on Sunday I’ll gain them all back.” Another stated, “We have family gatherings, and they all come over to my house eating, and then they talk about me losing weight . . . but they like for me to cook so I can’t have it both ways.”

As evidenced by all of these accounts, cooking food for relatives and eating together as a family are incredibly important aspects of personal fulfillment and enjoyment for many African American women. While this is far from unique to African Americans, food--and particularly traditional food--may be especially important to the preservation and transmission of African American culture. According to Mendes, “Food, like art, music and literature is an authentic expression of...culture. Throughout the history of African Americans...It has provided one of the few vehicles through which blacks have been able to preserve their African heritage” (cited in Whit, 2007). Food has been one of the “few vehicles” through which blacks could preserve their culture for a variety of reasons. First, most enslaved blacks were not allowed to read or write, or to learn either of these skills, and thus were unable to use writing or literature to transmit and preserve their cultures (Barrett, 1995). Second, many visual or performance art forms from black slaves’ countries of origin required inaccessible materials (e.g. traditional instruments) and time that slaves lacked given the fact that they spent most of the day engaged in demanding physical labor. Finally, the preparation of food was a far more practical cultural expression than art forms such as
literature, visual art or dance because it was a daily necessity. Everybody needs to eat, which makes cuisine equal parts art and survival.

As the primary cooks within their families, African American women are in many ways the keepers of black culinary culture and thus responsible for passing down tradition in edible form. As such, black women--whether or not they perceive themselves as such--hold the simultaneous responsibilities of keeping their families nourished and of preserving African American culture through food. Indeed, traditional African American foods are clearly vital to African American identity and a glue that holds African American families together. In an interview-based study by Rowe (2010), for instance, one woman said, “My family, when we’re happy we eat. When we’re sad, we eat. We eat when we’re married, we eat when we’re born, we eat when we die. It’s always, who’s bringing the fried chicken and pound cake.” Another woman said, “Like my grandfather, his peach cobbler is good...And my aunt, she makes the best macaroni and cheese. It’s almost like every person in my family has something they cook real good...That’s how African Americans show their love.”

At the same time, these culinary responsibilities can also clash with attempts at healthy eating and weight loss, especially when considered in tandem with the cultural expectations of female selflessness and strength (discussed in the following section). Many black women seem to feel pressure to cook and to eat, even when doing so might interfere with their attempts to lose weight or to change their diets. That said, studies of black women’s attitudes towards food seem to indicate that many African American have more positive attitudes towards (and experiences of) eating than do women of other races/ethnicities. In a study of weight loss attitudes among low-income black and
Caucasian women, for instance, 63% of black participants but only 18% of white participants reported eating for enjoyment and in response to positive emotions. In addition, 82% of white respondents reported eating in response to negative emotions, while only 18% of black respondents reported this type of eating (Keith et al., 2015).

One must realize, however, that eating for enjoyment is not mutually exclusive with eating in response to life stresses and negative emotions. The quote above (“When we’re happy we eat. When we’re sad, we eat...”) is a reflection of the fact that eating is an emotionally complex act with more than one purpose and meaning. As the following section explains, cultural expectations of female selflessness and strength also influence black women’s eating habits and attitudes towards eating in deeply important ways that may help explain their high rates of obesity.

**Selflessness and Strength**

African American women face pronounced and profound cultural expectations of selflessness and strength. The expectation of selflessness frequently takes the form of prioritizing the well-being of family members over personal well-being, while strength is often expressed through stoicism and maintaining the appearance of “holding it together” under the weight of innumerable burdens (Gillespie, 1978). Selflessness can keep black women from taking the time to exercise, or to shop, cook and/or eat in ways that support their health rather than the needs or preferences of their family members. The expectation of strength, on the other hand, leads many African American women to seek comfort and mask vulnerability through eating. To a certain extent, these cultural expectations are adaptive given some of the realities that many black women face (e.g. single motherhood, poverty, wage discrimination,
neighborhood disorder and violence). On the other hand, these expectations may influence eating and other health behaviors in ways that foster obesity and impede weight loss.

Black feminist scholars in a variety of social science fields have noted that African American women face strong cultural pressure to be selfless and to place the interests of their children and family members above their own interests (Watson and Hunter, 2015). While the prioritization of family interests over self-interests is emblematic of African American culture in general (and perhaps of women in general), an aversion towards adopting a self-centered perspective seems particularly emphasized among African American women. As noted by black feminist scholar Tamara Beauboeuf-Lafontant (2003),

“Strong black women are recognized for their relationship to others rather than their connections to their selves. They typically demonstrate ‘gross displays of endurance and the absence of a personal agenda’ (Scales, 2001), and they routinely put on the appearance of managing myriad difficulties alone—supporting a family on poverty wages, raising children as a single parent...because they are deemed fit for a life of ‘labor, suffering, and survival’ (Harris-Lacewell, 2001).”

Prioritizing others and maintaining the image of strength may come at the expense of personal health for many black women. In studying a sample of obese black and white women, Ard (2013) found that holding multiple social roles was perceived as “getting in the way of making healthy choices” among black study participants at nearly twice the rate of white study participants15. A corollary finding of Rohm and Voorhees (2003)

15 This finding either implies that black participants held more social roles than white women, or that holding social roles was (perceived as) more burdensome for black women. In light of the cultural norms of caregiving and selflessness among black women—which would, it seems to me, make many black women come to expect taking care of others and putting themselves second—I would argue that the former is the more probable explanation.
in their survey of 234 black women in Baltimore is that women with fewer social roles were more than twice as likely to meet current activity recommendations. These findings are, simply put, only logical. Holding more social roles involves having more responsibilities and—as a result—having less time for self-care. Even though holding more social roles may increase one’s sense of purpose and self-efficacy, being too many things for too many people prevents one from engaging in self-focused health behaviors like exercise.

The notion that caring for others and holding many social roles is a barrier to healthy weight management is further supported by the following quote, taken from an interview with one obese African American mother in Walcott-McQuigg and colleagues’ (1995) study:

I think overall weight management is not as important because we have too many other things that we have to worry about...Many of us are managing homes as single parents, trying to raise children as single parents, and trying to make financial ends meet as single parents. I mean survival is what our concern is, not being the right size or weight.

Reading this woman’s account, one sees how being a single mother and simultaneously juggling the responsibilities of parenting, working and household management can make weight control and healthy diet seem relatively unimportant, and even trivial or selfish, compared to “survival” and the well-being of children and other family members. As mentioned in the introduction, low-income African American women have the highest rate of obesity among all race-gender-socioeconomic groups in the country, while low-income African American men have the lowest rate. Given the high rate of single motherhood among low-income black women (or the high rate of poverty among single black mothers) and the high rate of incarceration among low-income
black men, this sexual disparity in obesity may have something to do with social roles. At the same time that many low-income black men find themselves pushed out of social roles and into the criminal justice system, many low-income black women find themselves pushed into extra social roles, such as economic provider, head of household and primary caregiver for both children and extended family. Taking on many social roles demands not only significant time and a stressful amount of responsibility; it also demands a great deal of personal strength.

Personal strength is a trait that has been ascribed to and demanded of black women in a variety of contexts, from the imagination of the media to the reality of single motherhood. Speaking specifically to the cultural ideal of the “strong black woman,” black feminist Marcia Ann Gillespie (1978) writes,

“How many times have you heard the term applied to a woman whose life no rational person would choose in a million years? Some sister, struggling under an impossible load...‘That’s a strong Black woman,’ someone will say...It’s almost as if one were judging a performance instead of empathizing with a life. As a result, her complexities, pain and struggles are somehow made mythic.”

Gillespie’s idea of the “strong black woman” is one that has been named and studied by a variety of scholars (Beauboeuf-Lafontant, 2003; Black and Peacock, 2011; Harrington et al. 2010; Woods-Giscombé, 2010), who refer to it as a “race-gender schema,” or a social role normalized by race and gender. The strong black woman race-gender schema is considered an intentional invention of African American culture.

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16 Although the research on weight fluctuation and incarceration is limited, the available evidence indicates that—while both male and female inmates tend to gain weight—women gain significantly more weight while incarcerated than do men. Gates and Bradford (2015), for instance, found, in a sample of 10,841 incarcerated offenders (93% male, 7% female) that mean BMI change among male inmates was +0.67, while mean BMI change among females was +5.34. This is an incredibly rich finding (aside from its extreme overrepresentation of male subjects) that deserves further investigation, but unfortunately, that is beyond the scope of this study.
(Beauboeuf-Lafontant, 2003) and it is protective to certain extent. It has been shown to increase African American women’s perceived ability to persevere in the face of obstacles and oppression, to affirm their strength and sense of identity (Settles et al., 2008; Shorter-Gooden and Washington, 1996), and to foster feelings of self-efficacy (Black and Peacock, 2011; Mitchell and Herring, 1998; Watson and Hunter, 2014; Woods-Giscombe, 2010). In the face of experiences such as slavery, racial discrimination and poverty, this race-gender schema serves to consolidate black female identity and support the well-being of black families.

At the same time, the ideal of the strong black woman is dehumanizing because it places black women, “On a pedestal to be admired rather than helped,” and because it creates expectations which are stressful at best, and impossible at worst (Gillespie, 1978). In interviewing a diverse (in terms of age and body size) group of black women about the relationship of this race-gender schema to overeating, Beauboeuf-Lafontant (2003) noted that the participants spoke of excusing infidelity (because they were raised to “‘tak[e] all kind of stuff off of men”), working multiple jobs, raising multiple generations of children, ignoring their own desires and needs, and suppressing stress, sadness and other expressions of vulnerability so as not show weakness, which many considered “not black.” One participant spoke of her girlfriend asking if she needed to go to the hospital after seeing her cry because crying was so out-of-character for her. Many participants stated that they had never seen their mothers or grandmothers cry, and that they themselves hid their tears from their daughters and granddaughters.

Author Meri Nana-Ama Danquah, after telling a white woman that she was writing a
book about depression among black women, was told, “When black women start going on Prozac, you know the whole world is falling apart” (Danquah, 1998).

Given the cultural expectation that black women display strength and remain stoic in the face of myriad stresses, Beauboeuf-Lafontant (2003) contends that overeating is a common coping mechanism. This argument is supported by a variety of statements offered by participants in Beauboeuf-Lafontant’s study. One woman, for instance, stated that “You eat. It’s an exit...You don’t really have a reason. But it’s an outlet...You don’t have to deal with anybody, because you just put food in your mouth...You don’t even taste the food.” Another woman felt that, “The one time in the world they [black women] have to rest is, ‘Hey eat.’ One thing they know they can do well is eat and that’s their quiet time.” A third participant offered, “I’m cleaning the house. I’m tired. I’m going to eat what I wanna eat. Just leave me alone.”

In the view of other black female scholars who have analyzed obesity, gaining weight through overeating represents a means of embodying life stress and emotional distress. Author Rosemary Bray (1992) characterizes her own heavy weight as a metaphor for the emotional burden of being a “strong black woman” who acts, “nearly always for others.” She writes, “[I] am hungry for much more than food. I am hungry for things all of us are really hungry for:...to be truly seen and known...to be accepted the way I am.” In Bray’s estimation, overeating is a physical expression of her burdens as a black woman. Although she is hungry for things that cannot be eaten, such as being “truly seen and known,” she eats because food is much easier to obtain than social recognition and being “truly” known by others, rather than pre-judged on the basis of her race and sex. Overeating becomes, in other words, a means of embodying
vulnerability and dissatisfaction, of “speaking the unspeakable” (Beauboeuf-Lafontant, 2003), of making manifest the negative emotions that black women cannot directly express, and of satisfying a deeper kind of hunger: the hunger for social recognition and acceptance.

In addition to a coping mechanism and a means of embodying oppression and painful emotions, overeating among black women might be seen as a form of protest. More specifically, overeating may be an “inaudible protest” (Beauboeuf-Lafontant, 2003) of a cultural gender role that denies black women the experiences of, “failure, nervous breakdowns, leisured existences, or anything else that would suggest they are complex, feeling human beings” (Harris, 1996 cited in Harris-Lacewell, 2001). Overeating is a form of protest insofar as eating is a form of self-care, and overeating is engaging in self-care excessively, to the point that it becomes physically harmful. By overeating, Beauboeuf-Lafontant argues, one draws attention to the self and highlights unmet personal needs. Rather than the popular view of overeating as a form of “letting (oneself) go,” it can be seen as a way of clinging to a self that is pushed aside by cultural expectations of strength, selflessness and extreme emotional endurance.

Especially given the high rates of poverty among African American women the low rates of access to healthy foods, and the cultural practices of preparing high-fat traditional cuisine, the cultural expectations of selflessness and strength may be especially large impediments to the ability of black women to maintain healthy weight. Not only are black women expected to provide for their families, maintain culinary traditions and put their family’s needs far ahead of their own needs; they’re also expected to manage stress gracefully hide their vulnerability. All of this in the face of
neighborhoods that lack access to healthy foods but are concentrated with fast food restaurants and family gatherings with fried chicken, peach cobbler and macaroni and cheese as the centerpieces—it’s all too obvious why eating as a means of coping with stress and smothering sadness that can’t be expressed become major risk factors for obesity among the many African American women who feel expected to project strength while “struggling under an impossible load.”

As mentioned earlier, however, cultural expectations of strength can also be protective while “struggling under an impossible load,” by fostering feelings of perseverance and self-efficacy. When trying to lose weight, perseverance and self-efficacy are exactly what it takes to be successful, and thus it’s important to note that cultural expectations of female strength—in the right context—might be seen as helpful rather than harmful with regard to obesity among black women. Another cultural factor that may either promote obesity or foster weight loss, depending on the context, is female body size ideals.

**Body Size Ideals, Cultural Perceptions of Weight Loss and the Embodiment of Strength**

Across both the qualitative and quantitative literature, there are clear indications that African American women have larger body size ideals than do women of other races. Studies have shown that African American women are more likely to perceive their body types as being thinner than they actually are (Flynn and Fitzgibbon, 1998) and that they report higher levels of body satisfaction than do women of other races (Welch et al., 2004; Miller et al., 2000; Becker et al., 1999). In addition, African American girls commonly express the desire to gain weight to feel more attractive, whereas girls of other races/ethnicities (e.g. Caucasians) typically express the desire to
lose weight to feel more attractive (Flynn and Fitzgibbon, 1996; Bli xen, 2006). Furthermore, African American men express larger body size ideals for women than do men of other races (Powell and Kahn, 1995; Harris et al., 1991; Rosen et al., 1993). There also appear to be cultural pressures for black women to accept “what God gave you” (Baturka et al., 2000) and to focus on inner beauty and style rather than body size (Parker et al., 1995). Together, all of these factors contribute to African American women being more accepting of heavier body types and, in some cases, lacking the desire to lose excess weight and body fat.

Larger body size ideals among black women are grounded in a combination of social, economic, cultural and historical forces. One potential explanation, according to Shuttlesworth and Zotter (2011), is that larger body size was associated with health, beauty, wealth and high social status in many African societies. Anthropologists have hypothesized that in economically poor societies in general, overweight people are viewed as more resistant to famine and illness (Brown and Konner, 1987). Given the poverty in many of the nations in West and Central Africa (where the majority of slaves were from) in addition to the poverty that many African Americans currently face, this may be a particularly pertinent hypothesis. Moreover, thinness may actually be associated with poverty and illness in some African American communities. Freedman (1990) for example, found that low-income black females in Chicago reported thinking that thin people look like they are suffering from hunger, acquired immune deficiency syndrome (AIDS), or drug addiction. One nineteen year-old girl who was trying to lose eleven pounds to become a stewardess, stated “I’ve been a voluptuous female all my
life. If I start losing a lot of weight, people will think I’m on drugs. In the ghetto, you just can’t afford to look too thin” (Freedman, 1990).

With respect to African American women perceiving their bodies as thinner than they actually are, Flynn and Fitzgibbon (1998) found, in a relatively large review of the literature, that while most overweight black women recognized that they were overweight, they were more likely to underestimate their weight than were white women. More recently, Lynch and Kane (2014) found that, in a 69-person sample of low-income African American women, 56% of overweight women and 40% of obese women did not classify their body type as “overweight, obese or too fat,” even while selecting overweight or obese silhouettes to represent themselves (see Fig. 2). This finding was comparable to those of prior studies, which demonstrated that almost half of overweight African American women and roughly one-in-ten obese African American women classified their bodies as “about right” or “underweight” (Bennet et al., 2006; Dorsey et al., 2009).

Other comparative studies have shown that black women, when asked to rate silhouettes of different body types with respect to thinness or fatness, labeled the same silhouettes as thinner than did white women (Rucker and Cash, 1992). Kemper et al. (1994) also determined that adolescent black and white girls of similar body types chose the same silhouettes as representing their bodies, but that black girls were more likely than white girls to label these silhouettes as thin. Collectively, these findings
suggest that African American and white women have different perceptions of what constitutes thinness and fatness. If black women have a higher threshold for what constitutes “fat,” then they may be less likely to perceive themselves as such and to feel the need to lose weight. In addition, thinner African American women may feel the need to gain weight to achieve cultural beauty ideals of body size, while overweight and obese African American women may be less likely to see themselves as overweight and obese, as demonstrated by the findings of Bennet (2006) and Dorsey (2009).

(Fig. 2; Pulvers et al., 2004 cited in Lynch and Kane, 2014)

Accounts from African American women lend further support to the idea that they perceive weight differently than do white women. According to one woman interviewed by Rowe (2010), “We just see weight differently, I think, and body image totally differently. I don’t know if it’s right or wrong…[but] we can’t judge it on what White people think is the correct weight and size, because we’re different.” In another study, black women expressed the belief that standard height and weight charts are unrealistic for African American females. One 41 year-old participant stated that, “I
think a healthy body size could be almost any size...Because, you know, there’s all sizes and shapes of people” (Befort et al., 2008). In other studies, black women express the sentiment that curviness is an inherent part of their appearance, and that losing weight would strip them of their natural “look”. In speaking about her daughter, for example, one mother said, “if she lose her weight it won’t become her. It won’t become her, because most of my family members on my dad’s side are big boned and they have a tendency to gain…if she lose her weight it won’t look like her” (Williams et al., 2013).

Findings like these support the theory that larger body size ideals for black women are at least partially a response to mainstream “white” standards of female beauty, which emphasize thinness. According to this line of reasoning, black women—who are devalued by inherently discriminatory white beauty ideals—reject thin body size as a foundation of female beauty and instead embrace “curviness” (Gore, 1996). While this does not imply that the perceived ideal body type for African American women is obese, it does suggest that black women are, in many instances, not trying to achieve the same thin standard that many white women pursue. This probably does not explain the high prevalence of obesity among African American women to any significant degree, but it does suggest that the line between attractive and overweight may be thinner for black women than it is for women of other races/ethnicities\textsuperscript{17}.

Larger female body size ideals may also reflect naturally larger body size for African American women. Katmarzyk and colleagues (2012) found, in trying to determine what BMI and waist circumference best separated people at high risk of heart

\textsuperscript{17} It also has implications for ideal weight loss goals in obesity interventions, as will be discussed in Ch. 3.
disease or diabetes from people at low-risk (measured by cholesterol levels, blood sugar and blood pressure), that the “threshold” BMI was 30 for white women, while it was 33 for black women. They also found that “high risk” waist circumference was 35 inches for white women, but 38 inches for black women. Given the fact that black women still suffer from diet and weight-related illnesses such as heart disease, hypertension (highest death rate from these diseases of any racial/ethnic group for both conditions), and diabetes (twice the prevalence of white women) at staggeringly higher rates than women of other ethnicities, larger natural body size isn’t an indication that obesity is not actually a major issue in this population (CDC, 2015). But it’s important to acknowledge that larger body size ideals may be a result of simple biological differences between black women and women of other races/ethnicities.

It’s also important to acknowledge that African American women have higher levels of body satisfaction than do women of other races. Harris’ (2006) literature review for instance showed that, in a multitude of studies conducted between 1987 and 2000, African American women reported higher body satisfaction, more positive body image and a greater desire to gain weight than did their white counterparts (Altabe, 1998; Ashley et al., 1996; Dawson, 1988; Desmond et al., 1989; Emmons, 1992; Gray et al., 1987; Harris, 1994; Harris, 1995; Harris et al., 1991; Hsu, 1987; Klem et al., 1990; Miller et al., 2000; Rosen et al., 1991; Wardle and Marsland, 1990; Wilson et al., 1994). Roberts et al. (2006), in examining an even broader range of studies (from 1967 to 2002), found that all 55 studies demonstrated higher levels of body satisfaction among black women than white women, even when accounting for different factors
that might change effect size (e.g. year of publication, age of participants and publication status).

The relationship between higher body satisfaction and obesity among black women is not, to my knowledge, one that has been explored extensively. One potential connection is that higher body image satisfaction seems like it would be associated with less desire to lose weight. Among African American women who are already overweight or obese--who have been shown to have relatively high levels of body image satisfaction compared to white overweight/obese white women--this would foster the maintenance of overweight/obesity. Among women who are not already overweight, however, it is unclear what effect higher body image satisfaction would have on weight-related eating behaviors, if any at all. That said, Neumark-Sztainer (2006), in a five-year longitudinal analysis of body satisfaction and health behaviors (e.g. exercise, dieting) among over 2500 adolescents showed that lower body image satisfaction was not associated with a greater likelihood of engaging in health behaviors like exercise, although it was associated with unhealthy dieting and binge eating. In other words, being dissatisfied with one’s body does not, at least in the adolescent population, correlate with increased weight-reducing behaviors. But in the absence of studies demonstrating a statistically significant relationship between body satisfaction and health behaviors among black women specifically, the connection between body satisfaction and obesity remains to be determined.

Beyond body image satisfaction, body size self-perception and body size ideals, the body size preferences that (heterosexual) African American men have for women may also play a role in promoting obesity. Blixen (2006) found that African American
women perceive themselves as receiving more attention from men after gaining weight, even when they themselves are not comfortable with their weight gain. According to one woman, “I notice I get treated better by men now than I did when I was smaller, but for myself, not for men, I would like to be smaller.” Another echoed this sentiment, stating that “since I picked up weight, I get more attention from men than I used to.” Women interviewed in other studies expressed similar perceptions of black men’s female body size preferences, with statements such as, “Black guys like black girls who are thick—full figured,” (Parker et al., 1995) “African American men like their women with a little meat on their bones,” (Blixen, 2006) and "[Black men] didn't want a neck bone. They liked a picnic ham" (Thompson, 1994)

By and large, the psychological and public health literature suggests that “curviness” in African American females is indeed a sought-after quality. Examining the interaction between gender, race and female body size ideals, Cachelin et al. (2002) found that, among all subjects, white women chose the thinnest figures as attractive to men, while black men chose the heaviest figures. Other studies comparing black men’s body size preferences for women with white men’s preferences indicated that black men chose heavier figures than did white men, and that black men are more likely to be willing to date an overweight woman than white men, and less likely to think of these women as “sloppy” or unattractive (Harris et al., 1991). African American men’s preferences for female body size may encourage women to gain weight, or at very least, not to lose weight. If being “thick” means being attractive to men, then at least some portion of the obese heterosexual female African American population may be aiming for—and overshooting—this body type.
In addition, larger body size ideals may stem partially from the previously discussed cultural expectations of female strength and resilience that black women face. According to Beaubouef-Lafontant (2005), large body size is considered an embodiment of strength among many African American women. Rather than being seen as a sign of poor self-control or gluttony, as it seems to be among women in many other racial/ethnic groups, obesity is actually a sign of resilience and endurance among some black women. This finding may be explained by the aforementioned anthropological theory that larger body size is perceived as a sign of a greater ability to withstand hunger and famine in poorer societies (Shuttlesworth and Zotter, 2011). Given the fact that blacks have the highest rates of low and very low food security of any demographic measured by the USDA\(^\text{18}\) (Coleman-Jensen, Gregory and Singh, 2014), this explanation may in fact be relevant for a significant portion of African American women.

As one final connection between cultural expectations of female body size and obesity, media representations of black women may normalize obesity given how frequently black female characters in television shows are obese. A study of ten of the most popular television series in 1977, for instance, revealed that 90% of African American female characters were obese, compared to 5% of non-black characters. A 1999-2000 study of ten popular television series showed less dramatic but still significant disparities: 23% of African American female characters were obese compared to 9% of white female characters (Greenberg et al., 2003). The ubiquity of obesity in media portrayals of black women may serve to normalize large body size or

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\(^{18}\) These demographics, other than “non-Hispanic black,” include “non-Hispanic white,” “Hispanic,” and “other”
send implicit messages about how the world expects black women to look. The media has been shown to significantly influence body size ideals and to shift perceptions of what constitutes normal or healthy among women and men alike (Coleman, 2008; Grogan, 2008). If mainstream films and television shows frequently select overweight and obese black actors, then popular perceptions of African Americans will—at least to some degree—conform to these biased portrayals. The effects of such media portrayals may be subtle or even subconscious, but they are important nonetheless. These media portrayals combined with the larger body size ideals for women that already exist in African American culture undoubtedly come to bear upon how black women view and manage body weight. And whether or not media portrayals of black women normalize obesity, they at very least reflect how African American women’s bodies are imagined and portrayed in mainstream popular culture.

**Conclusion**

Cultural norms/values/practices and demographic trends among African Americans may both prevent and promote obesity. Demographic trends such as multigenerational households and values such as female strength might be barriers to weight management for some women and in some contexts, but they may also be facilitators of healthy weight-related behaviors for other women or in other context. Moreover, even cultural factors that appear logically related to higher rates of female obesity can be adaptive and supportive of healthy weight in some circumstances. Larger body size ideals, for instance, can help women have more realistic goals for weight loss and avoid the discouragement that accompanies failing to achieve overly ambitious weight loss goals. At the same time, certain elements of African American culture may
intersect with socioeconomic realities faced by black women to produce unique risk factors for obesity. Cultural expectations of female strength that prevent women from expressing weakness and vulnerability, for instance, may promote overeating, and particularly overeating traditional “comfort” foods like fried chicken or macaroni and cheese that are high in fat and calorically dense. Caregiving responsibilities and single motherhood, as another example, may make it unrealistic for many black women to exercise, especially if they don’t have access to safe outdoor spaces for activities like walking.

Even though its relationship to obesity is complex, considering African American culture is absolutely essential to understanding and addressing the high rates of obesity among black women. Without knowing how African American women perceive food, or weight loss, or their roles within their families, or ideal body size, policymakers and those designing anti-obesity interventions will create culturally insensitive programs that are met with resistance and failure. Understanding and addressing obesity among black women, however, demands a broad understanding that extends far beyond cultural factors. And as the following chapter explains, these cultural factors are inextricably linked with external structural factors such as poverty, food access, neighborhood disorder and racial discrimination.

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U.S. Prison Population Declined for Third Consecutive Year During 2012. US


doi:10.1080/07399330591004845

**Ch. 2: The Intersections of Socioeconomic Factors, Culture and Demographic Trends**

“Being oppressed means the absence of choices”
-bell hooks (in Feminist Theory: from Margin to Center, 2000)

The high rates of obesity among African-American women cannot be explained by cultural values and demographic trends alone. These elements are
incredibly important, but they are inextricably bound up in broader social and economic factors (which I will collectively refer to as socioeconomic factors) that define the lives of African American women and influence their eating behaviors, levels of physical activity, and other weight-related health practices. Among the most important socioeconomic factors that relate to African American women’s high rates of obesity are the inaccessibility of supermarkets, racially targeted food advertising, neighborhood disorder and racial discrimination. Collectively, these factors encourage overeating, lower diet quality, discourage physical activity and otherwise inhibit many African American women from being able to make the choices necessary to maintain healthy body weight.

As stated in Ch. 1, the cultural and socioeconomic factors underlying obesity cannot be teased apart easily, assuming they can be teased apart at all. African American culture, like all other cultures, has been shaped profoundly by the external social and economic contexts in which it arose. African American cuisine, for example, is a product both of traditional African cooking practices (a cultural force) and of the material poverty and harsh time demands imposed by slavery (in this context, a socioeconomic force). Thus, in exploring the relationship between socioeconomic factors and obesity among black women, cultural factors will inevitably enter the discussion. This is important to note because it is in the intersections between socioeconomic and cultural factors that we find the best explanations for the high rates of obesity among black women. As this chapter

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19 By “social factors,” I mean factors that arise out of broader social forces that are not specific to African American culture, but rather characteristic of the United States at-large. Racial discrimination and residential segregation are two examples of such social forces.
demonstrates, certain socioeconomic factors that are not unique to African American women, such as neighborhood disorder, become particularly obesity-promoting when combined with cultural factors that are unique to African American women, such as larger body size ideals.

Food Store Access and Racially Targeted Food Advertising

Two of the most important socioeconomic factors contributing to the high rate of obesity among black women are the accessibility of different types of food stores and the racial targeting of food advertising. Because the types of food stores to which African American women have access are different in different neighborhoods, I will be focusing on food stores in predominantly black census tracts, where a large portion of African Americans reside\(^2\) (Fry and Taylor, 2012; U.S. Census Bureau, 2012). As this chapter demonstrates, these census tracts have relatively few sources of high quality, affordable healthy foods like fresh produce and whole grain bread, but more sources of unhealthy items like fast food. Moreover, African Americans face greater exposure to advertisements for snacks, soda and other “junk” foods than do individuals of other races/ethnicities. Combined with the proclivity towards fried foods and animal fats grounded in the flavor profiles of traditional African American cuisine, the time demands imposed by single motherhood and the transportation limitations associated with poverty, the limited accessibility of healthy foods/high

\(^{20}\) Census 2010 data showed that 45% of African Americans resided in a census tract that was majority African American, compared to the 28% of low-income households located in majority low-income tracts and the 18% of upper-income households located in majority upper-income tracts. In addition, the “typical” African American (no definition given of “typical”) lived in a census tract that was 45% African American, despite the fact that African Americans made up only 12% of the 2010 population. Together, these statistics indicate that residential segregation by race is more prevalent than residential segregation by income, and that many or most blacks reside in neighborhoods that are disproportionately black compared to the general population (Fry and Taylor, 2012).
accessibility of unhealthy foods and the ubiquity of racially targeted food advertising become two particularly potent contributors to obesity among black women.

Within a given neighborhood, the physical accessibility of different types of food stores (i.e. the types of stores that are close enough for residents to visit on a regular basis) heavily impacts food choice. Particularly among low-income individuals and African Americans, who are less likely to own a car (Raphael, Berube and Deakin, 2006), the proximity of food sources is an important determinant of food purchasing decisions (Powell et al., 2007). Moreover, the types of store where individuals do their food shopping (more specifically, independent grocery stores/convenience stores vs. chain supermarkets) has a major influence on diet quality and health. Shopping at chain supermarkets has consistently been linked with greater fruit and vegetable consumption, more healthful overall diet and lower rates of obesity, both among the general population and among African American women in particular (Morland et al., 2002; Morland et al., 2006; Laraia et al., 2004; Zenk et al., 2005; Casagrande et al., 2009). Shopping primarily at independent grocery stores and convenience stores, on the other hand, has been associated with higher rates of obesity, overweight, hypertension and other diet-related health issues (Morland et al., 2002; Morland et al., 2006; Christian, 2010; Jilcott et al., 2011).

Proximity to chain supermarkets is associated with healthier diet because chain supermarkets generally have a wider variety of nutritious foods (specifically fresh fruits and vegetables, whole grain breads and low-fat dairy) at lower prices than do independent grocers and convenience stores. Owing to their larger size and customer base, chain supermarkets are able to stock a variety of both name brand and
generic food items, in addition to offering more varied package sizes and a wider overall variety of foods compared to independent grocery and convenience stores (Chung and Myers, 1999; Kaufman, 1999). Independent grocers and convenience store mostly stock canned produce, small quantities of low-quality produce or no produce at all, in addition to carrying primarily full-fat dairy and low-fiber white breads. Fresh produce and other perishable goods are generally considered less profitable because they require more frequent disposal and re-stocking, and thus many small and independent grocers--particularly those in low-income neighborhoods--choose not to carry these items (DiSantis et al., 2014; Lin et al., 2014).

A variety of studies at both the local and national levels reveal that predominantly African American neighborhoods have lower access to supermarkets21 than do majority white or racially mixed neighborhoods. Block and Kouba (2006) found that Austin, a predominantly black inner-city neighborhood of Chicago, had significantly fewer supermarkets than Oak Park, the racially mixed, suburban neighborhood directly on the Western border of Austin. Morland and Filomena (2007) found something similar in Brooklyn, New York, where no predominantly black census tract had a supermarket, compared to one out of three predominantly white census tracts and one out of four racially mixed census tracts with supermarkets. In South Los Angeles, Lewis et al. (2005) found that neighborhoods with higher proportions of African American residents had fewer healthy food

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21 In food access literature, supermarkets are defined as chain-stores (e.g. Price Chopper, Aldi and Food Lion), which carry a wider variety of foods than do convenience stores or grocery stores, which are smaller, generally not part of a chain, and carry far fewer healthy foods, and lower-quality produce if any at all.
options (chain supermarkets, specialty stores or produce stands) and more fast food restaurants than neighborhoods with lower concentrations of African Americans. In looking at selected census tracts in North Carolina, Maryland and New York, Moore and Diez Roux (2006) found that predominantly black neighborhoods had half as many supermarkets, twice as many grocery stores and far more liquor stores than predominantly white neighborhoods. Morland et al. (2002) found comparable results looking at census tracts in North Carolina, Mississippi, Maryland and Minnesota: predominantly white census tracts had four times the chance of having a chain supermarket (32%) than predominantly black neighborhoods (8%).

The most broad-reaching findings come from Powell and colleagues (2007), who analyzed commercial food store data from 28,050 U.S. zip codes (encompassing 280,675,874 people) and linked them to data from the Census 2000. Even after controlling for income--an obvious confounding variable in all of the aforementioned studies--Powell et al. found that predominantly African American neighborhoods had 52% of the supermarkets of predominantly white neighborhoods. Compared to the fact that low-income neighborhoods had 75% of the supermarkets of middle-income neighborhoods, these findings suggest that the racial makeup of a neighborhood is even more strongly related to supermarket accessibility than resident income level. This conclusion is corroborated by a nationwide study (based on 2000 US Census and 2001 InfoUSA food store data) conducted by Bower et al. (2014), which found that predominantly black census tracts with low poverty actually had fewer

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22 InfoUSA, now known as Infogroup, is a nationwide commercial database of over 12 million businesses that classifies food stores based on distinct U.S. Department of Labor codes for supermarkets, grocery stores and convenience stores (Bower et al., 2014).

23 In this specific study, “predominantly” was defined as at least 60%.
supermarkets, on average, than high-poverty predominantly white census tracts (See Fig. 2).

**Nationwide Supermarket Availability**

![Nationwide Supermarket Availability Chart](image)

Fig. 2: Supermarket availability by race and neighborhood poverty (Bower et al., 2014)

A study of inner city retail market patterns by the Brookings Institution (Pawasarat and Quinn, 2001) suggests that the lack of supermarkets in black census tracts is likely a result of stereotyped marketing research that devalues the consumer significance of racial minorities. More specifically, the widespread assumption that blacks are more likely to commit crimes like theft and less likely to form a lucrative consumer base keeps many retail food purveyors, like chain supermarkets, from opening franchises in primarily black areas. Given the persistence of stereotypes about African American criminality and poverty (e.g. Hall, 1992; Welch, 2007; Guo and Harlow, 2014), and how widespread racism against African Americans remains at a national level, it seems highly plausible that negative perceptions of African Americans on the part of retail food store owners explains the paucity of chain grocery stores in primarily black census tracts. If this is the case, then the shortage of
supermarkets in black neighborhoods can, itself, be seen as a form of national-level racial discrimination.

Even if income level were more strongly related to supermarket access than race, the relatively high proportion of African Americans who live in poverty would explain the lower levels of supermarket access in this population compared to other racial/ethnic groups. As stated earlier, African Americans have the highest rate of poverty of any racial/ethnic group in the country, and African-American women have the highest rate of poverty among African Americans (US Census Bureau, 2013; MacCartney et al., 2013). A variety of studies have found that low- vs. high-income neighborhoods and poor vs. non-poor neighborhoods have significantly fewer supermarkets and other healthy food options, such as specialty stores, farmer’s markets and outdoor produce stands than do middle- or high-income neighborhoods (e.g. Shaffer, 2002; Alwitt and Donley, 1997; Cotterill and Franklin, 1995; Morris et al., 1990; Powell et al., 2007). So whether they’re living in predominantly black neighborhoods or in low-income neighborhoods, black women are faced with low levels of access to sources of healthy foods.

Even though African American women living in neighborhoods without chain supermarkets might travel outside of their neighborhoods to find lower prices and higher quality food, doing so is often not a viable option. At the national level, blacks have lower rates of private automobile ownership than do individuals of all other races/ethnicities. While only 7.8% of white households and 10.1% of all households lack a private automobile, 19.7% of black households have no car (Berube, Deakin and Raphael, 2006). Public transportation is of course an alternative, but many cities
lack extensive systems of public transit that travel to locations like supermarkets. Furthermore, having to carry more than a small quantity of fresh produce back home on public transportation or on foot seems inconvenient at best, and impossible at worst. This speculation is supported by Lin et al.’s (2014) finding that households who travel more than twenty minutes to reach a supermarket devote considerably less of their food budgets to fresh produce, especially when using public transportation.

Considering the fact that traveling long distances to a supermarket also results in fewer shopping trips (Lin et al., 2014), it only makes sense that living far away from a supermarket and lacking access to a private vehicle would lower fresh, perishable produce purchases. If one can only make the trip to the closest supermarket once every other week, for instance, perishable items like fruits and vegetables seem less attractive than longer-lasting processed and packaged products. Why carry pounds of bulky sweet potatoes home on the bus when bagged potato chips are lighter, require no preparation and last considerably longer? For black women without ready access to fresh produce in or near their neighborhoods, opting instead for processed foods is a logical survival mechanism and seems less like a choice than a necessity.

Furthermore, the relatively high proportion of African American mothers who are single face the added barrier of lacking support for childcare. This lack of support may make it difficult to leave the house for shopping trips, especially for women who don’t have their own private vehicle. Given the difficulty of juggling a child or two with armfuls of groceries, traveling outside of one’s neighborhood to shop for food seems like an ambitious if not unrealistic undertaking. In addition, shopping more frequently--which becomes necessary when purchasing perishable goods like fresh
produce—is a bigger challenge without the consistent childcare support of a stable partner. Multigenerational households and assistance from extended family offset this burden to some degree, but not every single mother has this kind of support (although it’s also true that not every married or partnered woman has child care support). Without sufficient childcare help, and without access to a private automobile, the lack of supermarkets in black neighborhoods makes fresh produce, high fiber bread, low-fat dairy and many other healthy foods even more difficult to access for countless African American women.

While healthy food is relatively inaccessible for many black women, fast food is often highly accessible. Block et al. (2004), for example, found that the percent of black residents in a given neighborhood was positively correlated with the density of fast food restaurants in New Orleans, even when controlling for potential environmental confounders (commercial activity, presence of major highways, and median home values); compared to predominantly white neighborhoods sampled in this study, predominantly black neighborhoods had nearly twice the quantity of fast food restaurants. The Mari Gallagher Consulting and Research Group (2006; 2010) found the same results in Chicago and Birmingham, AL: predominantly black neighborhoods had two-three times denser concentrations of fast food restaurants than did predominantly white neighborhoods, even after controlling for environmental confounders and income. In addition, a meta-analysis of fast food access studies by Fleischhacker and colleagues (2011) found that ten out of twelve studies reported that fast food restaurants were more prevalent in neighborhoods with higher concentrations of ethnic minorities. (Of note, the six studies that exclusively
compared African American neighborhoods with white neighborhoods found especially large fast food restaurant prevalence gradients.)

Living close to fast food restaurants isn’t necessarily enough to cause the consumption of fast food, but a handful of studies suggest that this is the case. Block et al. (2011), in analyzing thirty years of data from over 3,000 participants in the Framingham Heart Study, found that each 1-km increase in distance to the closest fast food restaurant was correlated with a 0.11-unit decrease in BMI among women. Boone-Heinonen et al. (2011) employed fifteen years of data on over 5,000 subjects from the Coronary Artery Risk Development in Young Adults (CARDIA) study and determined that living near a fast food restaurant was associated with higher fast food consumption, particularly among low-income participants. Reitzel et al. (2014) found that, among low-income African American residents of selected neighborhoods of Houston, Texas (n = 1,244), fast food restaurant density within two miles of the home, in addition to closeness of the closest fast food restaurant, were both positively associated with BMI. And Moore et al. (2009) found, in a large (n = 5,633) multiethnic sample, that 62% of respondents who reported eating fast food at least once in an average week ate at a fast food restaurant within one mile of their residence.

The proximity of fast food restaurants is a major contributor to fast food consumption among African Americans, but African American culinary traditions, and corresponding dietary preferences, play a role as well. As discussed in the

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24 While this study used BMI instead of fast food consumption rates as the dependent variable, the high fat and calorie content of fast food suggests that the BMI increases in these studies were likely a result of higher fast food consumption.
previous chapter, African American cuisine was born in the context of slavery, which--given the material limitations and major time demands it imposed upon slaves--made preserving foods and preparing them quickly both essential practices. As such, many dishes were fried (which was fast) and flavored with salted “leftover” cuts of meat and pig fat (which were included in slaves’ food rations and could be preserved for long periods of time). Fast food, with its ample inclusion of fried foods (french fries, fried chicken, fried fish, etc.) and its heavy reliance upon animal fats for flavoring, is congruous with many of the flavor profiles of traditional African American cuisine. This proclivity towards fried and animal fat-flavored foods, in addition to convenience and price, may help explain why African Americans have been shown to consume a greater proportion of their calories from fast food than individuals from any other racial/ethnic group (Fryar and Ervin, 2013). That said, another major factor may be at play in promoting fast food consumption among African Americans: racially targeted food advertisement.

African Americans are exposed to television advertisements for food, and for unhealthy foods specifically, at a considerably higher rate than the general population (Henderson and Kelly, 2005; Tirodkar and Jain, 2003). In addition, African American households watch more television than the average American household (75 vs. 52 hours per week, respectively, according to a study by Nielsen Media Research, 1998; or 37%, which is the higher than the general market, according to a 2013 Nielsen Media Research study), and thus are likely exposed to more commercials in general. Not only has food advertising alone been associated with greater consumption of the foods being advertised (Lister et al., 2014), but food advertising for fast foods and
other unhealthy items, combined with the higher concentration of fast food
restaurants, convenience stores and other purveyors of “junk” foods in African
American neighborhoods, makes food advertising a particularly important
determinant of African American women’s diets. These sources of unhealthy food
afford easy access to the junk foods pushed by racially targeted food advertising.

Salmela et al. (2009) analyzed nearly 150 hours of primetime television and
over 950 commercials and determined that commercials during African American-
targeted programming were roughly twice as likely (23%) to be food-related than
commercials during general market programming (13%). Moreover, the
advertisements during African American programming were more frequently for fast
food, candy/gum, soft drinks/energy drinks, pizza, meats/ poultry/fish/eggs and
desserts/sweet-breads than they were in commercials during general market
programming. In a similar study, Tirodkar and Jain (2003) compared the top four
comedy sitcoms for the general population and for the African American population
and found that there were significantly more commercials for candy and soft drinks in
the latter sample. A variety of other analyses (e.g. Grier and Kumanyika, 2008; Harris
et al., 2010; Harris et al., 2011; Powell et al., 2010) have demonstrated African American-targeted marketing of foods high in fat and sugar in television advertising.
A corollary finding in numerous other studies (Grier and Kumanyika 2008; Outley
and Taddese, 2006; Pratt and Pratt, 1995) is the lower amount of ads for healthier
food products (e.g. produce, lean meat and low-fat dairy) in television programs
targeted at African Americans. Studies of billboards in different zip codes show more
ads for sugary beverages (Yancey et al., 2009) and alcohol (Hackbarth et al. 2001,
Herd, 2005, Kwate and Lee, 2007) in African American neighborhoods, in addition to overall greater numbers of food-related billboard ads (Yancey et al., 2009). In addition, Duerksen et al. (2005) found greater frequency of unhealthy food advertisements and lesser frequency of healthy food advertisements in magazines targeted at African Americans compared to magazines targeted at the general audience.

Multiple studies suggest that greater exposure to food advertising results in more consumption of the foods being advertised. Lister et al. (2014), for instance, showed that exposure to snack food advertisements in a laboratory setting led to significantly increased snack consumption compared to exposure to non-food advertisements25. Harris et al. (2009) also found that exposure to snack advertising increased snack consumption in a laboratory setting, both among child and adult subjects. The association between food advertising and eating patterns has not been widely replicated in non-laboratory settings, which makes sense given the methodological issues involved with trying to measure food advertising exposure and correlate it food consumption levels in a naturalistic setting (namely the unreliability of participant self-report and the impracticability of using independent raters to observe and measure these variables). But the aforementioned experimental studies suggest that food advertising has a sort of priming26 effect, whereby exposure to

25 Furthermore, response inhibition training (a process by which subjects are trained to avoid behavioral responses to environmental cues) prior to advertisement exposure prevented increased food consumption among subjects. In other words, learning to actively resist the effects of food advertisement prevented the overeating observed among subjects exposed to food commercials but not offered response inhibition training, further suggesting that food advertising does have an effect (Lister et al., 2014).

26 Priming works via “an overlap or strong association between representations activated by the perception of a given type of behavior, and those used to enact that type of behavior oneself” (Dijksterhuis & Bargh, 2001 paraphrased in Harris et al., 2009).
commercials functions as a cognitive cue for the observer to consume a given food item. Thus, African Americans may be more primed to consume snack foods, fast food, soda and other “junk” items, which are already more readily available in their food environments than healthy foods.

Another mechanism by which food advertising may affect eating behaviors is by socially normalizing the consumption of specific foods. Grier et al. (2007) reported that greater exposure to fast food marketing in an ethnically diverse sample was associated with the belief that fast food consumption was the social norm. Perceived social norms have been shown to influence binge drinking behavior (Neighbors, Larimer and Lewis, 2004), the use of sunscreen (Mahler et al., 2008), and the amount of food eaten during a meal (Herman et al., 2003 and Vartanian et al., 2008) (all cited in Croker, 2009). The exact mechanism by which social normalization increases the consumption of a given item is not understood, but studies in cognitive neuroscience (Falk, Way, and Jasinska, 2012; Klucharev et al., 2009 cited in Nook and Zaki, 2015) suggest that reaching consensus with a group opinion is associated with activation of the nucleus accumbens, which is considered a central component of the brain’s reward pathway via its mediation of dopamine release. These studies suggest that individuals will conform to social norms to maximize the pleasure associated with nucleus accumbens activation. Whether or not

27 On the subject of dopamine, high-fat items like fast food may produce something like addiction via triggering dopamine release. Laboratory rat studies suggest the possibility that individuals will come to associate the pleasure of dopamine release with fast food consumption, thus producing the desire to keep eating fast food and, subsequently, addiction (Naef et al., 2013). More specifically, Johnson and Kenny (2009) showed that obese rats that had been fed large amounts of palatable high-fat foods began refusing their normal, non high-fat feed until the point of starvation, waiting to be fed high-fat foods again. The subject of fast food “addiction,” however, is vast and beyond the scope of this study.
one believes this cognitive explanation of social conformity, being in-line with social norms seems like a reasonable explanation for food selection in many cases. Much as cereal and coffee, for instance, are normalized as breakfast items for the general American population, fast food may be normalized among many African Americans such that it seems like the appropriate or obvious thing to consume. Either way, the potential normalization of fast food that occurs via advertising may be helpful in understanding the high level of fast food consumption among African Americans, and thus may be a relevant consideration in black women’s rates of obesity.

All told, the food environments in many African American neighborhoods pose formidable challenges to the dietary health of black women. Between lower access to healthy foods, higher access to unhealthy foods and the saturation of unhealthy food advertising in black television shows, magazines and neighborhood billboards, too many black women face food environments that foster obesity. The effects of these food environments are further amplified by specific elements of African American culture and demographic trends among blacks. Lower rates of supermarket access are compounded by the demands of single motherhood and poverty such that many African American women have neither the transportation nor the childcare support necessary to travel long distances to supermarkets. High rates of grocery store and fast food restaurant access promote obesity to an even greater degree when combined with historical culinary traditions that create preferences for salty, high-fat and fried foods. Moreover, the simultaneous lack of access to healthy foods, ease of access to unhealthy foods, widespread marketing of unhealthy foods,
and typically higher prices of fresh produce and other healthy foods interact with and amplify one another.

In other words, as posited by the SEM, the different levels of influence of the external food environment exist in dynamic interrelationships with one another, and with individuals, that significantly affect the eating behaviors of black women. Elements of the food environment such as the absence of supermarkets, the preponderance of fast food restaurants and the saturation of African American-targeted junk food advertising (both microsystem and exosystem factors), which are themselves a product of larger forces like racial discrimination (macrosystem) ultimately play large roles in determining what African American want to--and are able to--eat. These elements of the food environment operate in tandem with another neighborhood factor that impedes healthy weight management among many black women: neighborhood disorder.

**Neighborhood Disorder, Stress and Physical Activity**

Aside from diet, physical activity is the other major individual lifestyle factor that has been extensively studied in relation to obesity. Individuals who do not engage in sufficient\(^{28}\) physical activity do not burn enough calories to maintain a healthy balance between intake and expenditure, placing them at a higher risk of becoming overweight or obese. Compared to adult men and women of all other races/ethnicities in the United States, African American women report the lowest rates of regular

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\(^{28}\) The amount of physical activity that is “sufficient” is obviously debatable, and varies by age. For the purposes of my argument, however, sufficient physical activity will be defined as the amount of physical activity recommended by the CDC’s *2008 Physical Activity Guidelines for Americans*, which is 150 minutes per week (CDC, 2008). In the context of my study, this definition only matters to the degree that it is the definition used by the studies that I cite.
physical activity (CDC, 2007; Thompson et al., 2014). A corollary finding from the CDC’s 2000 Behavioral Risk Factor Surveillance System (BRFSS)<sup>29</sup> is that African Americans have the highest levels of physical inactivity of all racial/ethnic groups (CDC, 2003).

Furthermore, African American women perceive more personal and environmental barriers to physical activity than do Caucasian, Hispanic or Asian women (e.g. Powell et al., 2006; Adams-Campbell et al., 2000; Brownson et al., 2000; CDC, 2000). Among the socioeconomic factors that create barriers to physical activity, neighborhood disorder is one of the most significant and prevalent<sup>30</sup> for African American women. Especially when examined in light of culturally expected female selflessness, larger female body size ideals and hair care concerns, neighborhood disorder is vital for understanding obesity among black women.

Neighborhood disorder can be defined, broadly, as the collection of environmental and social forces that contribute to a sense of disarray or neglect in a given area (Chang et al., 2009). Specific manifestations of neighborhood disorder include physically dilapidated buildings, cracked or non-existent sidewalks, high crime, resident fearfulness and perception of neighborhood danger. According to Chang and colleagues (2009), “Such a state of disorder can act as a heuristic device, providing visual clues to the failure of both formal and informal agencies to maintain social control.” This perception of “failure” to uphold social control is associated with

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<sup>29</sup> The CDC describes the BRFSS as “the world’s largest, on-going telephone health survey system” (CDC, 2015).

<sup>30</sup> African American women report higher perceived levels of neighborhood disorder than do women of other races/ethnicities (King et al., 2000; Felton et al., 2002; Weir, Etelson and Brand, 2006; Burdette and Whitaker, 2005; Lumeng, Appugliese and Cabral, 2006 all cited in Lovasi et al., 2009)
chronic stress, a sense of fear, reduced self-efficacy and reluctance to engage in outdoor activities (Ross and Mirowsky, 2009; Eyler et al., 2003; Wilbur et al., 2002) like walking, which is the most common form of physical activity among African American women (Adams-Campbell et al. 2000; Ainsworth et al. 1999; Crespo et al. 1996; Felton et al. 2002; James et al. 1998).

Neighborhood disorder discourages engagement in outdoor activities because it reduces the amount of safe space available for exercise. As King (2000) and others (e.g. Wilcox et al., 2003; Sharpe et al., 2008) have shown, black women commonly report a lack of safe space to exercise as a primary barrier to physical activity. In a parallel finding, Lovasi et al. (2009) calculated, from an analysis of 45 different studies, that both black women and women of other races/ethnicities who lived in neighborhoods which they perceived as extremely or somewhat safe (i.e. less disordered) were more than twice as likely to be active than women who lived in neighborhoods they perceived as slightly or not at all safe. In addition, Hoehner and colleagues (2005) showed that poor sidewalk levelness and negative perceptions of neighborhood aesthetics (two indices of neighborhood disorder) bore significant negative relationships with the amount of walking in which residents engaged.

Hoehner et al.’s study points to a similar but distinct way in which neighborhood disorder lowers physical activity: by reducing neighborhood walkability. Walkability, or the ease of walking in a given space, is determined by a combination of elements including the condition and presence (or absence) of sidewalks, the accessibility of open space, unattended dogs, traffic, crime, connectivity, land use mix and residential density (Cervero and Kockelman, 1997;
Indices of neighborhood walkability and indices of neighborhood disorder overlap significantly, and increased disorder corresponds with decreased walkability. As such, walkability can also be seen as a protective factor against obesity in a given neighborhood, as greater walkability translates into higher levels of resident physical activity. This relationship between walkability and obesity is supported by Saelens, Sallis and Frank’s (2003) finding that neighborhoods with high walkability scores (specifically higher density, mixed land use and a grid design) have residents who walk more frequently and weigh less. In their Seattle and Baltimore-based study, King and colleagues (2011) also found that neighborhood walkability was associated with higher levels of resident walking and lower resident BMI.

Various studies have indicated that walkability is often deficient in both lower income neighborhoods and primarily African American neighborhoods. Lower walkability in African American neighborhoods has been demonstrated in both rural (Felta, Dowda and Ward, 2007; Wilcox et al., 2003; Huston et al., 2003) and urban (Ewing et al., 2003, Lopez, 2004; Joshu et al., 2008) settings, and in national-level studies as well (Brownson et al., 2000; King et al., 2000). For example, Sebastião et al. (2014) determined that cracked sidewalks were one of the most frequently named barriers to exercise among older black women in a medium-sized Midwestern city. According to one woman, “I almost tripped and fell on my face. My friend . . . actually did that and she had to go to the doctor and they had to do a MRI. If you are walking and you are not looking, anybody not even an old person but even a child could fall and hurt themselves.”
Moreover, improving walkability in African American neighborhoods has been demonstrated to increase resident physical activity levels. In an intervention-based study, Gustat et al. (2012) examined two demographically and physically similar, primarily African American neighborhoods in New Orleans to determine the effects of installing a walking path on resident physical activity intensity. The authors found that, among residents who were physically active, a considerably higher proportion of them engaged in moderate to vigorous physical activity in the intervention neighborhood than in the comparison neighborhood. In other words, expanding the physical resources available for walking increased activity levels among the target population. Similarly, Ainsworth et al. (2003) found that the presence of sidewalks and light (as opposed to heavy) traffic were strongly associated with meeting physical activity recommendations in two South Carolina counties. In addition, a multitude of studies (Greenberg and Renne, 2005; Parks, Housemann and Brownson, 2003; Berrigan and Troiano, 2002; King et al., 2005; Wilcox et al., 2005 all cited in Casagrande et al., 2009) have demonstrated a positive relationship between living in neighborhoods built pre-1950 (which represent an urban form conducive to walking, as the 1950s marked the beginning of highway-dominated urban design) and physical activity levels.

Through probing both barriers and facilitators to walking, these studies point to essentially the same conclusion: that neighborhood walkability, as determined by the condition (and presence/absence) of sidewalks and the pedestrian-friendliness of the prevailing urban form, plays an important role in black women’s levels of physical activity. These studies also suggest a relationship between neighborhood
walkability and obesity, as mediated by physical activity levels. Indeed, some studies have yielded direct correlations between neighborhood walkability and obesity. Smith et al. (2008), for instance, found that higher levels of walkability (as measured by resident density, the number of intersections within a quarter mile of each address, neighborhood age, proportion of residents walking to work and the median age of housing) in census tracts of Salt Lake County were associated with decreased levels of overweight and obesity. King et al. (2011), mentioned above, reported a parallel finding in their study of the relationship between neighborhood walkability and obesity rates among older adults in Seattle and Baltimore: walkability measures were inversely related to resident obesity risk.

Neighborhood disorder promotes obesity by discouraging physical activity and decreasing neighborhood walkability, but it also promotes obesity by causing stress. As discussed in the previous chapter, chronic stress is linked with increased cortisol secretion, which is associated with weight gain and abdominal fat deposition (Moyer et al., 1994; Epel et al., 2000; Kahn et al., 1998). Perceived neighborhood disorder has repeatedly been demonstrated to cause stress, suggesting that it may actually have a direct relationship with obesity. Zhang et al. (2015) and Lamis and colleagues (2014) found that neighborhood disorder was positively associated with psychological stress31 among single mothers and African American mothers, respectively. Hill, Ross and Angel (2005) demonstrated, in their multi-city study of 2,402 disadvantaged women, that neighborhood disorder had a strong inverse relationship with self-reported health. They also found that this relationship that was

31 Zhang et al. and Lamis and colleagues looked specifically at maternal (parenting-related) stress.
completely mediated by psychological distress; in other words, the negative effects of neighborhood disorder on self-reported health were fully explained (statistically speaking) by participants’ stress, which was in turn explained by the depression and fearful anxiety directly associated with neighborhood disorder (See Fig. 3 below).

Using a survey method with over 2,000 adults in Texas, Hill, Burdette and Hale (2005) determined that perceived neighborhood distress was consistently associated with both higher psychological stress and lower quality of sleep. And Batson and Monnat (2015) found, in Las Vegas, NV, that both real (measured by foreclosure rates, physical decay and crime) and perceived neighborhood disorder had strong positive associations with residents’ stress and strong negative associations with their quality of life.

![Conceptual model of the relationship between neighborhood disorder, stress and health](Hill, Ross and Angel, 2005)

In tracing the relationship between neighborhood disorder, lower levels of physical activity and higher rates of obesity among African American women, we must consider how this socioeconomic factor intersects with cultural expectations of female selflessness, larger female body size ideals and hair care concerns. Selflessness, as
discussed in Ch. 1, is a cultural expectation that may keep some African American women from being able to adopt the self-centered posture necessary to engage in activities like exercise. Exercise is essentially a self-enriching practice that requires taking time away from child care, cooking and other family-focused tasks that dominate the lives of many black women, and especially single black mothers. Im and colleagues (2012) reported that African American women in their internet forum-based study viewed physical activity as a “luxury” that they didn’t have time to engage in. One participant wrote, “I feel that my culture often views physical activity as an unaffordable luxury. Unaffordable in terms of being able to ‘indulge’ in the amount of time it takes to tend to one’s own needs. Often it is viewed as being selfish when going to a gym or even working out at home.” Another participant revealed that, “The thing that inhibits me from participating more in physical activity is a sense of guilt over doing something for myself.” Engaging in physical activity, in other words, may be incompatible with African American women’s culturally informed perceptions of how they should be spending their time: on their families, and not on their selves.

Furthermore, African American female body size ideals, which value “thickness” or “curviness” over thinness, likely make exercise seem even less appealing for many black women. While the health benefits of exercise could still serve as encouragement for physical activity, the desire for a trim body would not a motivation for the (likely significant) contingent of African American women who aren’t necessarily trying to drop their dress size. Whether health benefits or appearance benefits (e.g. weight loss, muscle toning) are the stronger motivator for exercise is a worth asking, but it seems self-evident that desiring both benefits would produce
stronger motivation than only wanting one or the other. Especially given the fact that exercise is also accompanied by less desirable effects, such as physical discomfort and lost time, lacking appearance-related motivations for exercise (i.e. not seeing exercise-induced weight loss as a benefit) may further dissuade black women from engaging in physical activity.\footnote{Admittedly, this is a tenuous connection in the absence of specific evidence. In this instance, I am relying on a logical jump (that is, assuming that larger body size ideals translate into black women not viewing exercise as beneficial to their appearance). Thus, I must acknowledge the connection between body size ideals and physical inactivity among black women is speculation, albeit informed speculation.}

Another reason that exercise may be unappealing for some black women is the effect that sweating has on African American hair. In a survey-based study by Hall et al. (2013), hair care concerns were shown to keep 40\% of black female respondents (n = 103, ages 21-60) from exercising. African American hair is often coarse and tends to become dry and frizzy after exercise because sweating releases salt and pulls moisture out of hair strands (Hall et al., 2013). In a survey-based study of African American women’s hair care concerns, 60\% of 200 respondents reported chemically straightening their hair (Gathers and Mahan, 2014). Other studies have estimated that 70\% to 80\% of black women, on a national level, use chemical straightening, or hair “relaxing” products (Banks, 2000; Byrd & Tharps, 2001; Tate, 2007). Because exercising produces sweat and dries out hair, it also reverses chemically induced straightening. To the extent that African American women try to keep their hair straight, which sweating undoes, physical activity is detrimental to hair maintenance, further dissuading many black women from exercising.
Using the socioecological model as a framework, one sees how socioeconomic factors like neighborhood disorder (both part of the microsystem and the mesosystem\(^\text{33}\)) operate simultaneously and interdependently with cultural norms and values like female selflessness, larger body size ideals and hair care maintenance (all facets of the macrosystem\(^\text{34}\)) to discourage physical activity. These elements work together to make physical activity unattractive, non-normative, difficult and even dangerous for a large number of African American women. In so many words, the low reported levels of physical activity among African American women are not simply a product of laziness, or just the result of living in disordered neighborhoods. In order to understand a phenomenon as complex as physical activity habits, one must consider individuals in the context of their culture, their neighborhood, their responsibilities, their beliefs, their desires and broader (i.e. not African American-specific) social norms, in addition to considering these contextual elements in relation to one another. Hair care concerns, for instance, are reflective of mainstream white beauty ideals that venerate long, straight European hair while devaluing curly, “natural” African hair. Beauty ideals such as this are embedded within another fundamental macrosystem element tied to obesity among African American women: racial discrimination.

**Racial Discrimination**

Racial discrimination remains a powerful force in the lives of black Americans. A large national survey conducted by the Pew Research Center (2013)

\(^{33}\)To reiterate, the microsystem encompasses the interactions between an individual and their immediate environment while the mesosystem is defined by the interactions between two different elements of the individual’s microsystem, such as between family and friends, or between friends and the neighborhood (Bronfenbrenner, 1979).

\(^{34}\)The macrosystem is comprised of cultural norms, values and laws which are shared by groups, such as ethnic groups (Bronfenbrenner 1979)
showed that 88% of African American respondents perceived “some” to “a lot” of
discrimination against blacks, with nearly 50% perceiving “a lot” of discrimination.
While 57% of whites also reported perceiving discrimination against blacks, only
16% believed that “a lot” of discrimination existed, suggesting that African
Americans—as one might logically presume—are more closely attuned to the presence
of racial discrimination. This may be because racial discrimination does not only
occur in overt forms, like the use of epithets or the outward endorsement of
stereotypes. Racial discrimination can be subtle and indirect, manifesting itself as
“microaggressions,” which are often more readily perceivable to the racial/ethnic
minorities who face this form of discrimination on a regular basis. Microaggressions
are unintended forms of discrimination which occur via normalized patterns of social
expression and behavior, but which have the same effects as conscious forms of
discrimination upon the subjects of the microaggressions (Pierce, 1970). Examples of
common microaggressions include clutching one’s wallet or crossing the street when
passing by a black pedestrian, telling a black person that they are “so articulate,”
(thereby implying that other blacks are not articulate), and asking any racial/ethnic
minority to speak for their entire racial/ethnic group.

Even African Americans who don’t perceive themselves as subjects of racial
discrimination, be it an overt epithet or a covert microaggression, still face
institutionalized, structural forms of racism. From discriminatory arrest/incarceration
patterns (Harris and Beckett; NAACP), to lower chances of attaining employment
compared to equally qualified white individuals (Mong and Roscigno, 2010; Ziegert
and Hanges, 2005) to poorer treatment in medical settings ( Peek at al., 2011; Ross,
Lypson and Kumagai, 2012) examples of structural and institutional racism abound. Research indicates that many African Americans come to believe the negative stereotypes that society perpetuates about them, whether expressed directly or more tacitly via microaggressions or structural and institutional racism. The process of coming to believe these stereotypes is often completely subconscious; as such, social scientists refer to it as “internalized racism.”

Internalized racism profoundly affects the mental and physical well-being of those who experience it (Speight, 2007; Cort et al., 2013; Kohli, 2014). This has been demonstrated by a variety of empirical studies (e.g. Worcester, 2005; Cort et al., 2013; Tull et al., 2007), but also by the direct accounts of those who face internalized racism. In the words of one woman, quoted in Wagner et al.’s (2011) study of the relationship between perceived racism and obesity among black women, “I internalize everything…I turn everything inward and over the years, dealing with the racism, and dealing with that mentality, and thinking how I was raised - a lot of that became depression.” Another woman in the same study, in trying to describe her internal response to racial discrimination, reported, “Yeah, my stomach. My body, you know what I mean. It is a feeling that I get. That’s where I hold my stress, in my stomach, in my body.”

Many reports indicate that stress is the vehicle through which internalized racism, and racial discrimination in general, influence health. More specifically, racial discrimination has repeatedly been shown to cause stress (Sellers et al., 2003), which worsens overall health by weakening the immune system, changing hormone levels, causing anxiety and depression, decreasing sleep quality and inspiring maladaptive
coping behaviors, such as substance abuse (Lovallo, 2005; Zautra, 2003; CDC, 2012).

As described in the previous chapter, stress contributes specifically to the
development of obesity by overstimulating the hypothalamic-pituitary-adrenal (HPA)
axis and boosting production of the steroid hormone cortisol--two changes which are
associated with increased abdominal fat distribution (Bjorntorp, 1991; 1998).

Moreover, stress is thought to lead to overeating as an emotional coping mechanism,
further implicating it in the etiology obesity (Oliver et al., 2001; Liu, 2014).

A multitude of studies have drawn correlations between the stress of
perceived racial discrimination and obesity among African Americans. These studies
have used different measures as their dependent variable, including direct measures of
obesity (BMI) and indirect measures such as overeating and binge eating. I have
already defined BMI (body-mass index, a ratio of height-to-weight), but overeating
and binge eating require definition. Overeating is the consumption of excess calories
in relation to the amount of calories that an organism expends, often leading to
overweight or obesity. Binge eating, or bingeing, is uncontrollable, excessive,
compulsive and rapid eating often accompanied by the experience of physical
dissociation and followed by feelings of shame and guilt. Bingeing is distinct from
overeating in that it is always accompanied by a loss of control and a feeling of
helplessness\(^{35}\) (Thurston, 1995).

\(^{35}\) Bingeing is a symptom of binge eating disorder (BED), an eating disorder characterized by a
pattern of binge eating without purging which is associated with severe obesity (Kumanyika et al.,
2005; Striegel-Moore and Franko, 2003). In a study of black and white women who met full criteria of
BED (Pike et al., 2001), 83\% of black women compared to only 56\% of White women were obese. In
addition, African Americans have been shown to have one of the highest lifetime rates of any binge
eating (ABE) of any racial/ethnic group in the country (Marques et al., 2011), suggesting that BED and
ABE disproportionately affect blacks.
Kohlmaier (2003) found that, among black women, experiencing perceived racism was positively associated with emotional distress, which was positively associated with binge eating, which was in-turn positively associated with obesity. Cuevas et al. (2014) determined that perceived levels of racial discrimination were directly and positively associated with depressive symptomatology in a sample of black women, which was in turn directly and positively associated with overweight and obesity. Tull (1999) demonstrated that internalized racism (measured using the empirically validated Nadanolitization Scale\(^{36}\)) was significantly and positively associated with waist circumference among African American women, even after adjusting for age, education, anxiety, and depression. Moore-Greene (2008) concluded that perceived ethnic discrimination, even when low, was a form of chronic stress which was significantly correlated with lower perceived health, lower rates of physical activity and higher average BMIs among black women. Parker and Hunte (2013) discovered that the degree to which black males endorsed racial/ethnic stereotypes about African Americans (i.e. their level of internalized racism) was positively associated with their BMI. Using the standardized Everyday Discrimination Scale, Connolly (2011) determined that experiencing regular discrimination was significantly and positively associated with overeating in a socioeconomically diverse sample of black women. Sharif (2007) found, in a sample of 220 black undergraduate students, that higher perceived racism and higher affective stress responses to racism were both negatively associated with self-rated

\(^{36}\) The Nadanolitization Scale is “designed to measure the extent to which Blacks identify with the racist stereotypes that Blacks are mentally defective (intellectually, morally, and emotionally) and physically gifted (athletically) (Bryant, 2011).
health and self-efficacy with regard to adopting healthy eating habits. And Thomas (2006), examining a national sample of 5,044 African American women in the 1997 Black Women’s Health Study (BWHS)\(^{37}\), identified a strong and clear relationship between perceived discrimination and higher BMI.

Viewed together, these studies indicate the links between obesity and measures of both internalized racism (i.e. endorsement of racial stereotypes) and perceived racial discrimination. In other words, discrimination may contribute to obesity among black women regardless of whether it is internalized and influential on only a subconscious level (although internalized racism can also be experienced consciously) or perceived and explicitly named. Moreover, this literature suggests that racial discrimination may have the dual effect of inspiring overeating and/or binge eating, and lowering self-efficacy to improve one’s diet. In other words, racial discrimination fosters weight gain while simultaneously impairing weight loss.

Two theoretical models offer pathways between racial discrimination and overeating/binge eating: the affect regulation model (e.g., Deaver, Miltenberger, Smyth, Meidinger, & Crosby, 2003; Haedt-Matt and Keel, 2011) and the stress-diathesis model (Morley, 1983). The affect regulation model posits that some individuals binge eat for comfort and to distract themselves from negative emotions (e.g. anger, anxiety and loneliness), which have been shown to precede binging episodes (Abraham and Beumont, 1982; Lingswiler, Crowther, and Stephens, 1989; 1989; 1989).

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\(^{37}\) The Black Women’s Health Study (BWHS) is an ongoing, prospective follow-up study which collects information about health, illness and demographic factors from African American women in the West, Midwest, Northeast and South. The BWHS examines a variety of topics, including demographic factors, use of medical care, family history of breast and other cancers, reproductive and medical history, current and past cigarette and alcohol use, and current weight and height (Thomas, 2006).
Loro and Orleans, 1981; Powell and Thelen, 1996; Root and Fallon, 1989 all cited in Connolly, 2011). Binge eating is thought to distract those who binge by temporarily reducing negative self-awareness, tension, and attention paid to distressing emotions (Heatherton and Baumeister, 1991; McManus and Waller, 1995; all cited in Connolly, 2011). This likely occurs via bodily dissociation\textsuperscript{38}, which has been shown to occur during unrestrained eating (Fuller-Tyszkiewicz and Mussap, 2008; La Mela et al., 2010) and/or the release of dopamine (an important neurotransmitter in the brain’s reward pathway) which accompanies all eating, and thus may inspire overeating (Mahapatra, 2010; Wang et al., 2001). The \textit{affect regulation model} supports the notion that some African American women overeat in response to cultural expectations of female strength and stoicism. For these women, being forced to internalize rather than externalize their negative emotions may lead to attempts to reduce emotional distress in alternative ways, namely overeating or binge eating. This connection is supported by the words of one participant interviewed in Walcott-McQuigg’s (1995) study of psychosocial correlates of obesity among black women: “"In our communities and in our families that food is a vehicle that is used to comfort us when we may not have much else." Especially among black women who feel unable to express their distress to, and to receive emotional support from others, food may be one of the few vehicles for comfort.

The \textit{stress-diathesis model}, on the other hand, suggests that the pathway underlying binge eating depends on each individual’s personal characteristics, vulnerabilities and exposure to risk factors (Striegel-Moore et al., 2007). In this

\textsuperscript{38} Bodily dissociation can be defined as the experience of becoming detached from awareness of and/or physical sensation in one’s body.
model, the diathesis, or the individual’s predisposition, interacts with the response of
the individual to events or circumstances that are stressful. Diatheses are understood
to include biological, genetic, cognitive, personality and situational factors (e.g.
socioeconomic status or neighborhood environment). Depending on the individual’s
diathesis, exposure to stress past a certain threshold may or may not result in
psychopathology. In the context of obesity among black women as it relates to racial
discrimination, the stress-diathesis model might suggest that the diatheses of many
black women may leave them predisposed to responding to stress by overeating.
Given the broad range of factors that contribute to one’s diathesis, the stress-diathesis
model would also emphasize the degree to which social, cultural, and structural
factors operate in tandem to predispose black women to binge eating, and
subsequently to obesity. Combined with an understanding of how the external
environment influences eating behaviors and physical activity levels, and of how
racial discrimination causes stress, the stress-diathesis model is a relatively holistic
framework for the relationship between racial discrimination and obesity.

While the affect regulation model and the stress diathesis model are only
theoretical models of how racial discrimination contributes to obesity, enough
research exists to demonstrate that racial discrimination does, indeed, contribute to
obesity regardless of whether or not we understand the actual mechanism(s)
underlying this relationship. Moreover, racial discrimination is a vital consideration in
studying obesity among black women because many of the most-studied obesogenic
factors, such as the food environment, stem at least partially from the effects of racial
discrimination. The grossly disproportionate rate at which African American men are
arrested; the ubiquitous and repeatedly demonstrated discriminatory hiring practices that keep blacks out of the job market; the hesitancy of chain grocers to open up franchises in predominantly black neighborhoods— all of these are manifestations of racial discrimination, and all of these appear to contribute to obesity among black women in one way or another. As such, the high rate of obesity among black women might, itself, be seen as a manifestation of racial discrimination in the United States. Addressing the causes and consequences of obesity among black women is, therefore, not only a matter of public health but also one of social justice and racial equality. Among the various attempts that have been made to address this health issue, anti-obesity interventions warrant particular scrutiny. As will be discussed in the following chapter, this is because current anti-obesity interventions both promote and inhibit social justice, racial equality and a lasting solution to the obesity crisis faced by black women.

Works Cited


39 As I argued in the previous chapter, the disproportionately high rate at which black men are incarcerated may relate to the high rate of single motherhood among black women, which in turn may relate to higher rates of obesity. Racially discriminatory hiring practices, on the other hand, contribute to economic insecurity, and thus potentially to a lowered ability to purchase healthy foods and a higher level of daily stress.
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Moore, L. V., & Diez Roux, A. V. (2006). Associations of neighborhood characteristics with the location and type of food stores. American Journal of


Ch. 3: Successes, Strategies and Barriers to Anti-Obesity Interventions

“The amount of research on African Americans and obesity and weight control is almost nonexistent. If you put it on a scale with the amount of research that has been done on obesity, you can’t even get a signal...there are probably less than 50 informative studies about how to prevent or treat obesity in African Americans.”

-Dr. Shiriki K. Kumanyika, University of Pennsylvania, 2005 (cited in Hawkins, 2005

Examining obesity among African American women yields a long list of problems that run the gamut from cultural to economic. What studying this topic does not yield, however, is any clear solutions. As the previous chapters have demonstrated, obesity is an incredibly complex issue that stems from a wide variety of interlocking and interdependent cultural, social, psychological, and economic (and potentially biological/genetic40) factors. Obesity among black women is as much a matter of individuals and their choices as it is a matter of families, neighborhoods, public policies, food advertising, racial discrimination and numerous other socioeconomic and cultural forces. And as hard as it may be to alter individuals’ health habits such as diet or physical inactivity, it seems even more difficult to overcome the social and structural factors that contribute to obesity among black women. The unfortunate truth is that there are no simple fixes for a health issue as multicausal as obesity.

Perhaps an even more unfortunate truth is that African American health issues, and particularly African American women’s health issues, are generally

40 Although there are a multitude of studies that have cited potential biological/genetic reasons underlying the high rate of obesity among black women (e.g. lower resting metabolism rates and increased fat storage), I will not be discussing them. Such factors are undoubtedly relevant considerations, but while it’s important to note them, addressing them would entail medical treatments beyond the scope of the types of interventions discussed in this study (Tussing-Humphreys et al., 2013).
underappreciated, understudied and inadequately addressed by public health research and interventions. As such, even virtual epidemics in black America, such as female obesity, have not inspired many effective or well-informed interventions. This is partially a result of the complexity of obesity, but it is also a result of the priorities of public health and medical research institutions, which reflect the overall devaluation and neglect of African American women in the United States. This neglect manifests itself time and time again in the field of obesity research and obesity interventions. While obesity interventions struggle, in general, to produce lasting weight loss among participants, these interventions tend to be even less effective for African American women, who have consistently been shown to lose less weight than white participants enrolled in the same studies (Rickel et al., 2011; Kumanyika et al., 1991, 2002; West et al., 2008). As this chapter sets out to prove, this weight loss gap is not a failure on the part of black women; it is a systematic failure of anti-obesity interventions.

In the decade that has passed since Dr. Kumanyika made the statement in the epigraph above, the list of “informative studies about how to prevent or treat obesity in African Americans” has grown past fifty, but it remains short. The list of studies that have reported lasting weight loss among black women in weight loss interventions is even shorter. This should not discourage the public health community from pursuing obesity interventions for black women; rather, it should serve as an impetus for studying the small handful of interventions that have enjoyed success. Because such interventions are few and far between, the strategies they employ demand systematic scrutiny. More specifically, these successful anti-obesity

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41 I will alternately refer to these interventions as obesity interventions, anti-obesity interventions, obesity studies, weight loss studies, weight loss interventions and weight loss trials.
interventions must be examined in terms of their fundamental elements: use of
groups, setting, duration, theoretical framework, interventionist race/characteristics,
inclusion of cultural tailoring, inclusion of maintenance phase, and weight loss
behaviors being targeted (e.g. diet, physical activity). Before addressing these
elements, however, we must consider the significant barriers to recruiting black
women into obesity research and interventions in the first place. These barriers help
explain the lack of research on African American women and obesity, and they must
be overcome before this body of research can advance.

**Barriers to Recruiting Black Women into Weight Loss Studies**

The lack of research about obesity among black women is a result of more
than the underprivileged social status of African Americans. This lack of research
also stems from the difficulty of recruiting blacks into obesity trials, and into medical
studies in general. Walker and Gordon (2014) cite some of the most important
barriers: *larger body size* ideals (e.g. Baturka et al., 2000); *distrust of research* (Bates
and Harris, 2004; Brown and Topcu, 2003); *skepticism of interventions* (Yancey,
McCarthy and Leslie, 1998); *caregiving responsibilities* (Eyler et al., 2002; Frank,
Stephens and Lee, 1998); and *lack of time* (Carter-Nolan, Adams-Campbell and
Williams, 1996; Fitzgerald et al., 1994; Nies, Vollman and Cook, 1999). Together,
these barriers reduce the appeal and accessibility of weight loss interventions for
many African American women.

As discussed in the first chapter, *larger body size ideals* may stem from
traditional African standards of beauty, which associate “curviness” with material
security and fertility (Shuttlesworth and Zotter, 2011). These standards may also be
interpreted as a reaction to the poverty that many African American women face (Brown and Konner, 1987) or a defiant response to the mainstream Caucasian ideal of thin female body size (Flynn and Fitzgibbon, 1998). On the one hand, larger body size ideals can be protective against eating disorders (Cotter et al., 2015), and may help obese women have more realistic expectations and goals for weight loss. On the other hand, these ideals keep some obese African American women from wanting to lose weight, which is the most obvious motivation for enrolling in a weight loss intervention (Im et al., 2012). While black women who hold larger body size ideals may not be motivated by the idea of becoming thinner, they are still motivated by the desire to improve their health. Ard, Rosati and Oddone (2000), for instance, found that obese African-American subjects in their intervention were more motivated to participate by the desire to reduce their risks of developing preventable illnesses (e.g. diabetes and cardiovascular disease) than by the desire to reduce their body size. Obesity interventions may, accordingly, be able to improve recruitment efforts by tailoring messaging to emphasize the general health-promoting aspects of programs rather than focusing specifically on weight loss.

*Distrust of research*, which has historical roots in the exploitative use of African Americans in studies such as the Tuskegee syphilis experiment[^42], is another major barrier to weight loss study recruitment. Many African Americans avoid participating in medical research because they feel such studies treat them as “guinea

[^42]: The Tuskegee syphilis experiment was a study carried out by the U.S. Public Health Service from 1932-1972 in which black subjects with syphilis were intentionally left untreated to observe the disease’s effects over time. Subjects were intentionally deceived into thinking that they were receiving free health care from the government and subsequently denied any effective form of treatment (Reverby, 2000).
pigs,” with little regard for their actual well-being (Corbie-Smith et al., 1999).

Widespread knowledge of the Tuskegee syphilis experiment in particular has damaged many blacks’ perceptions of medical research (Durant et al., 2011). This distrust of medical research is part and parcel of skepticism of interventions, which is both rooted in distrust and in a general lack of faith in the efficacy of interventions. Studies have shown that many adults trying to lose weight, whether or not they are African American, don’t believe that altering their diet and/or increasing their levels of physical activity will lead to lasting weight loss (Davis et al., 2005). Looking specifically at obese, low-income black women Keith and colleagues (2015) found that most participants in their study doubted that any behavior modification on their part would produce clinically significant and long-term decreases in body weight. Distrust of research and skepticism of interventions might be addressed through adopting a community-based participatory research (CBPR) design. CBPR involves stakeholders (study participants, family members, civic leaders and other community figures) in all aspects of research, from design to implementation to analysis. CBPR is founded on the belief that professional researchers and lay community members each have their own skill sets and types of expertise which, when combined, create better-informed and more effective studies. Rather than employing a top-down, paternalistic approach to research in which participants are merely recipients of the intervention, CBPR has participants themselves plan and carry out key intervention elements, thereby increasing their sense of investment in and ownership over the study (Minkler and Wallerstein, 2008; Israel et al., 1998).

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43 Clinically significant weight loss is defined as losing at least 5% of body weight over the course of six to twelve months (Collins, 2003).
Using CBPR in obesity interventions for African American women is thus useful for overcoming both distrust and skepticism, as it offers participants the opportunity to observe and influence the study from the ground up. In addition, CBPR has the added benefit of employing community members who will remain in the community after the study is over. This may help sustain weight loss among participants and has the potential to improve overall community health in the long-term.

*Caregiving responsibilities,* elaborated upon at length in Ch. 1, may also keep women from feeling able to enroll in weight loss interventions. Because these interventions often involve support groups, exercise sessions and other components that require time and travel away from home, they impede caregiving. Moreover, caregiving responsibilities are rooted in cultural expectations of female selflessness, which lead many women to prioritize the health and well-being of their family members over their own health. Indeed, self-focused activities like exercise have been described by many African American women as “luxuries” that they can’t afford (Im et al., 2015). Caregiving responsibilities are also an underlying cause of *lack of time,* as are the time demands of employment, and especially low-wage, shift-based service jobs, which a disproportionately large number of African American women hold (2012 U.S. Census 2012 American Community Survey). Indeed, focus group studies with overweight and obese black women show that caregiving responsibilities and lack of time are two of the most commonly cited barriers to engaging in either weight loss studies or independent physical activity (e.g. Belza et al., 2004; Sebastião et al., 2014; Nies, Vollman, and Cook 1999).
Caregiving responsibilities and lack of time are difficult barriers to overcome, but they can be addressed by 1) emphasizing the health benefits of intervention components for both participants and their families, and 2) promoting lifestyle changes that can easily be incorporated into women’s daily schedules. With regard to the former suggestion, educating participants about the specific health benefits of cooking healthier versions of their favorite dishes, for instance, could help them to see these changes as beneficial to their families and not just to themselves. Given the degree to which African American are expected to be far more family-centric than self-centric, emphasizing the benefits of interventions for participants’ families may make obesity interventions more motivating, comfortable and culturally acceptable.

With regard to the latter proposal, finding ways to incorporate weight loss-promoting behaviors like exercise into participants’ daily habits (e.g. jogging in place while watching television or doing chair exercises when sitting) may make physical activity seem less time-consuming and promote repetition of these activities by tying them to an existing habit.

In addition to the barriers listed above, concerns about weight loss being perceived by others as a sign of poverty or illness (Barnes et al., 2007), health care providers frequently neglecting to advise overweight and obese African Americans to lose weight (e.g. Kumanyika, Wilson and Guilford-Davenport, 1993), and a general culture of distrust toward whites (Huang and Coker, 2010; Di Noia et al., 2013), who frequently run weight loss trials, may also be impediments to black women participating in obesity research. Admittedly, the first two barriers are difficult to address; broad cultural perceptions about weight loss and systemic issues of
discrimination in the medical establishment seem largely beyond the control of either participants or researchers. The culture of mistrust towards whites, however, can be mitigated by using interventionists (e.g. weight loss coaches, dietitians, fitness instructors) who are people of color, and ideally African American.

Overcoming the barriers to recruiting African American women into obesity interventions is the first step. The next step is determining how the different elements of weight loss interventions (use of groups, setting, duration, theoretical framework, interventionist race/characteristics, inclusion of cultural tailoring, inclusion of maintenance phase and weight loss behaviors being targeted) can be configured to optimize intervention efficacy. Through probing these elements, and through considering specific case studies of especially successful and especially unsuccessful interventions, we gain a clearer understanding of how obesity among black women can effectively be addressed.

**The Fundamental Elements of Weight Loss Interventions**

*Use of groups*

African American women who are trying to lose weight frequently express the preference for group-based rather than individual interventions. Befort et al. (2008) conducted weight-loss specific focus groups with overweight and obese black women and found that the vast majority of participants expressed a strong interest in group-based weight loss programs. These participants wanted to meet with “like-minded” women and learn skills for healthy cooking and eating, increasing exercise, and otherwise improving their weight-related health behaviors. In addition, these women
overwhelmingly expressed a preference for support from overweight or obese peers over support from their families.

Similarly, Blixen, Singh and Thacker (2006) found, in a 20-person focus group of African American and Caucasian women, that black participants unanimously endorsed a group-based weight loss approach. In response to the question, “If you had 5 minutes to tell your primary care physician how to help you lose weight, what would you say?” all African American participants agreed that a team or group-based program would be their recommendation, while most Caucasian participants preferred one-on-one interactions with their providers and rejected the idea of talking about their weight with other women. In addition, Veal (1996) found that black women in their study were over seven times more likely (50%) than white participants (7%) to join a diabetes support group for weight and diet management. These findings are consistent with the preference for group activities over individual activities that has been noted across anthropological studies of African American culture (e.g. Stack, 1974; Nobles, 1985). As Di Noia and colleagues (2013) point out, African Americans generally employ a collective coping style more based on harmonious group efforts than isolated, individual actions. Thus, using groups to address the problem of obesity and weight loss rather than placing the burden on the shoulders of individuals is a means of making interventions more culturally sensitive.

The use of group-based interventions is a useful strategy not only because it’s consistent with African American cultural preferences, but also because the dynamics of a group format may foster more successful weight loss efforts. In a review of eleven weight loss studies involving black women, Bronner and Boyington (2002)
found that a group intervention format was especially useful for promoting lifestyle/behavioral change because it fostered friendly peer pressure, casual competition and consistency of educational weight loss messaging. Group interventions can also provide safe and supportive environments in which participants feel that they are surrounded by others who understand what they’re going through, and to whom they feel accountable (Rowe, 2010).

One last benefit of group interventions is cost-effectiveness. Dietary education, healthy cooking lessons and physical activity instruction, for instance, can be implemented at the group level more efficiently than at the individual level in terms of number of participants reached in a given amount of time. Group-based interventions also tend to require less resources per person (e.g. amount of money paid to dietitians or personal trainers delivering the intervention) and are thus more affordable to maintain, both in the short- and the long-term (Segal and Dalziel, 2007).

On the other hand, individual interventions have the advantage of being more personalized to fit the needs and preferences of each participant. They can more directly assess and address the weaknesses and barriers of individuals trying to lose weight, and they can afford participants more extensive access to the support of the interventionists (Bronner and Boyington, 2002). Nonetheless, meta-analyses of obesity interventions (e.g. Lancaster et al., 2014; Walker and Gordon, 2014) have demonstrated that studies with exclusively group treatment sessions reported similar average percent weight loss and comparable results for other health improvements (e.g. lowered blood pressure, reduced body fat percentage) in comparison to studies with both groups sessions and individuals sessions. In other words, group-only
interventions appear just as effective as interventions with individual components, and the efficiency, cost savings, supportive elements and overall cultural appropriateness afforded by group interventions make them, generally speaking, the superior option for African American women.

**Setting**

Setting is important because it determines physical accessibility, comfort and convenience for participants. Interventions which require significant travel or which are set in unfamiliar or uninviting locations will likely limit participant recruitment, retention and engagement. Given the fact that African American women frequently cite caregiving responsibilities, work and other time commitments as major barriers to weight loss trial participation (Eyler et al., 2002; Frank, Stephens and Lee, 1998), and the fact that a smaller proportion of African Americans have access to private transportation than does the general population (Berube, Deakin and Raphael, 2006), physical location is undoubtedly a major factor in determining the success of obesity interventions for black women.

Setting is also important because certain settings provide access to existing community networks and afford opportunities to collaborate with trusted community leaders. Interventions which are set in established gathering places—particularly churches, which are central to the communities of many African Americans—have the advantage of being able to tap into the social networks to which members of the target population already belong. This improves both recruitment and retention in that it provides interventionists with “captive audiences” in the form of built-in communities, along with the support of known community figures (e.g. pastors and
organizers) and familiar spaces that are comfortable and often easily accessible to participants (Moredich and Kessler, 2013). In addition, working with existing social networks can help overcome the mistrust of research that keeps many African Americans from taking part in weight loss studies. Especially when researchers form partnerships with trusted community leaders, the barriers of mistrust and the skepticism of interventions can more easily be overcome.

Church-based interventions are particularly illustrative of the advantages of setting interventions in established community spaces. As noted by Campbell, Hudson and Resnicow (2007), the mission of the African American church has historically extended far beyond worship and spiritual matters to include political organizing, education and other community-enriching activities. It follows that using churches in black communities as bases for anti-obesity interventions and other health promotion efforts is not necessarily an inappropriate or unprecedented extension of their function. The same can be said of other gathering places like senior centers and recreational facilities, which are multipurpose by nature and can often accommodate a variety of activities key to weight loss interventions, such as cooking lessons and exercise programs. Some (albeit a small contingent) of these community gathering places, be they churches or senior centers, may also be sources of funding and material support for obesity interventions lacking sufficient resources (Lancaster et al., 2014).

Furthermore, a multitude of studies have explicitly demonstrated that anti-obesity interventions can successfully be carried out in churches. Yanek et al. (2001), for instance, implemented the year-long, faith-based Project JOY among 500 black
women in 16 different Baltimore churches and found that women in the intervention (church-based) group lost, on average, thirteen pounds more than women in the control group (who were attempting to lose weight independently). Kennedy et al. (2005) reported 90% retention and an average weight loss of 7.27 lbs (and 4.4 lbs of body fat) among primarily female African-American participants in a six-month church-based intervention in the lower Mississippi Delta. These figures are superior to average retention rates (53%-77%) and weight loss figures (3-5 lbs) reported in a variety of meta-analytic studies of non-church-based obesity interventions for black women (e.g. Walker and Gordon, 2014; Tussing-Humphreys et al., 2013).

At the same time, holding weight loss interventions in churches poses some challenges. Butler-Ajibade, Booth and Burwell (2012) report that church leaders are “bombarded” with requests to involve their churches in research projects and that church leaders often see health care provision as an additional burden on their “already full plates with little or no lasting return for the church.” Many churches also lack the resources to support interventions that require services such as health screenings and medical education unless the health agencies or universities overseeing the research can fully cover these costs. Pastors in African American churches also report being left “high and dry,” without programming or support, once the data collection phase of the study has ended and the grant funding is spent. In addition, many black churches serve traditional African American soul foods, like
fried chicken, collard greens with ham hocks and sweet tea, at their events and may not want to give up this practice\textsuperscript{44}.

Nonetheless, using churches as settings for interventions appears more advantageous than disadvantageous, and the general practice of locating interventions in centers of community life such as churches is an important element of successful obesity studies. By connecting researchers with established and trusted community leaders, providing captive audiences (e.g. congregation members or retirement home residents), and offering access to comfortable, familiar and accessible spaces, this practice helps weight loss studies recruit, retain and engage more participants. Using settings like churches also aids the implementation of a community-based participatory (CPBR) research design and may be particularly beneficial with regard to facilitating weight loss maintenance post-intervention. Because setting interventions in community spaces like churches fosters the inclusion of local leaders in delivering interventions, this practice can create enduring pillars of support for study participants in the form of these respected, trusted community members (e.g. pastors and community organizers) who will remain present even after the study ends.

Race/Characteristics of Interventionists

A very small handful of studies have looked at whether racial concordance between interventionists and participants has any influence on the efficacy of obesity interventions. In their meta-analysis of psycho-behavioral obesity interventions for multiethnic and minority Americans, Seo and Sa (2008) found no evidence that such

\textsuperscript{44} That said, churches might serve healthier versions of these staples (e.g. baked chicken and collard greens with smoked turkey) and introduce healthier, less commonly eaten traditional African American foods, such as one-pot stews with okra and assorted greens, as well.
concordance made any difference. Batch et al, (2012), in analyzing 1,685 participants in the Weight Loss Maintenance trial (44% African American, 67% female, 73% participant-interventionist race concordance) found a small but statistically significant increase of 1.76 more lbs lost, on average, among participants with an interventionist of the same race.\footnote{Further analysis showed that this higher weight loss only occurred among white participants with an interventionist of the same race, and not among African American participants. Given the myriad weight loss studies that have shown that white participants lose significantly more weight in interventions with both white and black participants (e.g. Rickel et al., 2011; West et al., 2008, Kumanyika et al., 1991). Batch et al.’s finding is likely a reflection of this disparity rather than of the effects of participant-interventionist race concordance.}

In the context of healthcare, however, numerous studies have indicated that racial concordance between provider and patient significantly improves numerous indices of patient satisfaction and overall quality of care received. Saha et al. (1999), for instance, found that black patients with black physicians were significantly more likely to rate their physicians as excellent and to report receiving preventive care and all needed medical care. Cooper et al. (2003) found that African American patients with race concordant physicians experience more positive affect, longer visit time, greater satisfaction with their provider and higher levels of participatory decision making (involvement and empowerment in the process of making their own health care decisions). In a large multiethnic sample of patients (with 745 African Americans), LaVeist, Nuru-Jeter and Jones (2003) found that black patients with black physicians were significantly less likely to report neglecting to seek medical care at times they felt they needed it in the previous 12 months and more likely to report visiting their doctor in the previous 12 months. And Traylor (2010) found, in an even larger multiethnic sample of patients (n = 131, 277 diabetic adults), that
African American patients with race concordant providers were significantly more likely to fully adhere to their cardiovascular disease medications than African American patients with race discordant providers.

Together, these findings indicate that--in the context of health care, at very least--race concordance between patient and provider leads to higher satisfaction with services (Saha, 1999), more positive affect while receiving services, greater participatory decision making and more attention from the provider (Cooper et al., 2003), higher rates of service utilization (LaVeist, Nuru-Jeter and Jones, 2003) and better adherence to treatment (Traylor, 2010). While health care-based study results are not necessarily generalizable to weight loss interventions, these findings suggest some possible insights: 1) That race concordance between interventionist and participant may be particularly important in primary care clinic-based obesity interventions and interventions involving physicians, dietitians and other healthcare professionals, 2) That even in the absence of improved weight loss outcomes, race concordance between interventionist and participant will may lead to higher participant satisfaction with the intervention and 3) That interventions which require adherence to a given treatment plan and voluntary visits, on the part of the participant, to locations such as primary care clinics may benefit from race concordance between participant and interventionist. In addition, ensuring participants-interventionist race concordance removes the obstacle of distrust of whites that keeps some African Americans from utilizing health services and engaging in health research (Huang and Coker, 2010). Again, these are only speculations given the differences between healthcare studies and weight loss studies, but assuming a similar dynamic between
participants and interventionists and participants and physicians, these suggestions hold weight.

In addition to the race of the interventionist, whether the interventionist is a healthcare professional or a layperson/community member is another important consideration. Laypeople and community members can be defined, broadly, as individuals recruited from the community, rather than from professional organizations like hospitals or health centers, to serve as interventionists. On the one hand, laypeople often have less experience than healthcare professionals at providing the counseling, education and other supportive services that weight loss interventions typically entail. On the other hand, laypeople/community members often have a greater ability to relate to participants because of shared cultural experiences, and thus elicit greater feelings of trust and understanding. In addition, using lay personnel has been found to be more cost effective than using professionals, and community-dwelling lay personnel can remain potential sources of support for participants after the study ends (Kong et al., 2014; Bronner and Boyington, 2002; Moredich and Kessler, 2013).

Studies directly comparing obesity interventions with lay and professional interventionists have found that lay personnel (specifically facilitators, group leaders and peer educators) are equally effective at program delivery and outcomes as professional personnel (Pleas, 1998; Kaul, 1979; Bronner and Boyington, 2002; Kong et al. 2014). Similar results have been found in interventions for other health issues targeted at African American communities (e.g. Ellis and Morzinski, 2013; Feldman et al., 2008; Russell et al., 2010). While the amount of research directly comparing
the efficacy of lay and professional personnel in obesity interventions is limited, the available evidence suggests that the use of lay personnel is cost-effective, culturally appropriate and may result in more sustainable interventions and better weight loss maintenance given the continued presence of community members post-intervention (Moredich and Kessler, 2013).

*Cultural Tailoring*[^46]

According to Di Noia et al. (2013), cultural tailoring can be defined as “the design of program messages and content to reflect individual differences” with respect to the relevant beliefs, values and norms of a given culture. Strategies for cultural tailoring include: 1) peripheral strategies, or the incorporation of pictures of group members in addition to images, and colors they prefer, 2) evidential strategies, or the presentation of statistics about the given health problem’s impact on the group, 3) linguistic strategies, or strategies that employ the dominant or native language of the group in communication materials, 4) constituent-involving strategies, or the incorporation of stakeholders (community members) in program planning and decision-making, and 5) sociocultural strategies, or “the discussion of health-related issues in the context of core values and characteristics” (Kreuter et al., 2003). The importance of achieving cultural appropriateness through cultural tailoring is considered a truism of health education. In other words, there exists virtual consensus in the field of public health that health education efforts that make an intentional (and successful) effort to be culturally appropriate are more effective in achieving their given ends (Kumanyika, 2003; Di Noia, 2013; Kreuter et al., 2003).

[^46]: Although the entirety of this study is related to cultural tailoring/appropriateness in obesity interventions for black women, cultural tailoring as a concept warrants explicit discussion.
One piece of evidence that supports the need for cultural tailoring in obesity interventions for black women, specifically, is the fact that black women have been shown to lose less weight than white participants in weight loss interventions involving both groups (e.g. Rickel et al., 2011; West et al., 2008, Kumanyika et al., 1991, 2002). Other studies have explicitly reported that weight loss interventions that include cultural adaptations for appropriate foods, forms of physical activity and general lifestyle changes are more effective at producing both short- and long-term participant weight loss than interventions that do not include such adaptations (Walker and Gordon, 2014; Baturka, Hornsby and Schorling, 2000; Melnyk and Weinstein, 1994).

All told, achieving cultural appropriateness through cultural tailoring is a practice that is clearly supported by the available evidence. Culturally tailoring interventions may be particularly important for African American women given the variety of cultural barriers to weight loss they face. Specific examples of cultural tailoring strategies include providing childcare to address the barrier of caregiving responsibilities, teaching healthier ways of preparing traditional African American foods, fostering group-based activities such as walking clubs (sociocultural strategies), employing lay facilitators and community leaders as interventionists (constituent-involving), creating educational literature such as magazines and videos that feature African American women (peripheral), ensuring that all program messaging is appropriate for participants’ levels of education (linguistic) and emphasizing the health benefits of weight loss, specifically with regard to diseases...
such as diabetes that are recognized by participants as being widespread in their families and communities (evidential).

**Weight-Related Behaviors Targeted**

Virtually all obesity interventions ultimately aim to change participant beliefs, knowledge and practices related to physical activity, diet or a combination of the two. Because exercise and eating are the two primary weight-related health practices that can be changed at the individual level, they are logical foci for obesity interventions. An examination of almost any meta-analysis of African American-focused obesity interventions will demonstrate that the vast majority of studies incorporate both physical activity and nutrition elements. In Fitzgibbon et al.’s (2012) analysis, for instance, nineteen out of twenty-five studies included both exercise and dietary components.

Given that diet and exercise are the behaviors targeted by virtually all obesity interventions, the question arises of whether one or the other deserves greater emphasis. Analyses of large health datasets, like the NHANES, have reported that the obesity gap between black and white females is explained more by differences in caloric intake than differences in physical activity levels (e.g. Johnston and Lee, 2011). Although this might suggest that interventions should focus on diet rather than physical activity levels, the fact that African American women are less likely to engage in physical activity than women of other races (CDC, 2007; Thompson et al., 2014) suggests that physical activity is not a factor that weight loss studies should overlook. Moreover, if the ultimate goal of obesity interventions is improving participant health through weight loss, then both diet and physical activity should be
addressed, because both are essential for maintaining not only weight loss, but overall health. Even when it doesn’t result in weight loss, physical activity can have other important health benefits, such as improvements in blood pressure and bone density (CDC). Therefore, interventions that successfully improve both diet and weight loss will be more effective in improving participant health and promoting weight loss than interventions that only achieve one or the other. The ideal intervention, in other words, would both increase participant physical activity levels and promote more healthful diets.

*Maintenance Phase*

While many interventions produce modest weight loss that persists in the 6 months following the active phase of interventions (Fitzgibbon et al., 2005; Samuel-Hodge et al., 2009; Yancey et al., 2006), very few result in lasting weight loss. Studies (Wadden, Butryn and Byrne, 2004; Franz et al., 2007 cited in Tussing-Humphreys, 2013) show that individuals typically regain 30-35% of their initial weight loss within the first year after treatment, and more than 50% return to their pre-intervention weight within five years. Given the paucity of interventions that lead to lasting weight gain, the inclusion of a formal maintenance phase (post-intervention support to help participants maintain their weight loss, typically in the form of counseling and check-ins) appears to be a particularly important inclusion in weight loss studies. Indeed, Tussing-Humphreys and colleagues (2013) found, in their meta-analysis of obesity interventions for black women, that ten of the twelve studies that included a formal maintenance yielded significantly lower percent weight regain than all interventions lacking a formal maintenance phase.
As stated earlier, the use of a community-based participatory research (CBPR) study design and lay/community personnel in intervention delivery are two practices that facilitate the inclusion of a formal maintenance phase. After the study has ended and the professional research staff have left a given neighborhood, community-dwelling individuals involved with study design and intervention delivery can remain sources of support for participants. These community members can foster weight loss maintenance by helping participants identify and overcome barriers to maintenance as they arise. Especially when using a CBPR design in which study participants themselves participate in intervention design and can help one another with weight loss maintenance, a formal maintenance phase is both a realistic and highly beneficial inclusion.

Theoretical Framework

In the context of health interventions, theoretical framework refers to a schema or conceptual model of human behavior and behavior change. One or multiple theoretical framework/s can be used to structure obesity interventions such that the mechanisms of behavior change embedded within the framework serve as guidelines for altering the eating patterns, physical activity habits and other weight-related health behaviors of participants. The social ecological model (SEM), discussed at length in the introduction, is an example of a theoretical framework that might be used to structure an obesity intervention. The SEM would suggest altering both the behaviors and physical environments of subjects in order to promote weight loss behaviors (e.g. both providing nutrition education and increasing access to health
foods within the community). As will be discussed below, the SEM is a particularly promising and unfortunately underutilized framework for obesity interventions.

Another example of a theoretical framework is the social cognitive theory (SCT), which posits that human behavior is a result of an interrelationship between personal factors, behavior, and the environment whereby each individual’s cognition is influenced by their perceived self-efficacy, personal goals, expected outcomes, morals and standards (Bandura, 1986 in Hawley, Harker and Harker, 2009). In the context of weight loss studies, the SCT typically involves practices such as goal-setting, counseling to improve participant self-efficacy, and rewards to encourage healthy behaviors. The SCT is perhaps the most commonly employed theoretical framework for weight loss interventions, at least among interventions that make explicit use of a theoretical framework. For example, Beech and Jernigan’s (2014) meta-analysis of obesity prevention and treatment interventions targeted at African American girls found that eleven out of twelve studies reported the SCT as their principal theoretical framework. Fitzgibbon and colleagues’ (2011) meta-analysis determined that all eight of the eight interventions analyzed that reported a theoretical framework used the SCT. And Kong et al.’s (2014) review included ten SCT-based interventions out of the sixteen interventions that explicitly used a framework.

While a theoretical framework such as the SCT seems like a logical foundation on which to design interventions, there is little to no evidence that the inclusion of any theoretical framework is associated with higher efficacy in the context of weight loss interventions (Dombrowski et al., 2010; Bronner and Boyington, 2002; Fitzgibbon et al., 2012; Burke et al., 2009; Lancaster et al., 2014).
Fitzgibbon et al. (2012), for instance, found, in the 25 different obesity interventions targeted at black women which they reviewed, that interventions based on either the SCT or the health belief model\(^{47}\) were no more effective than interventions based on behavioral self-management without an explicit theoretical framework. Some studies, such as Michie et al.’s (2009) meta-analysis of behavior change interventions for low-income individuals, have associated the inclusion of *specific techniques* that would follow from the use of a theoretical framework, such as the goal-setting associated with the SCT, with more effective interventions. But the explicit utilization of a theoretical framework for designing a weight loss intervention is not a practice supported by bulk of meta-analytic obesity intervention literature.

At the same time, there is no evidence that the use of a theoretical framework is detrimental to study efficacy, and a framework may serve as a helpful aid for conceptualizing and implementing interventions. In addition, there may be underutilized and understudied frameworks that could serve to inform obesity interventions in fruitful ways. Bronner and Boyington (2002), for example, found that all three studies in their meta-analysis that incorporated Adult Learning principles—based on Knowles’ (1984) theory of Andragogy, or adult learning (which posits that adults should be involved with the planning and evaluation of their education) yielded clinically significant weight loss (loss of at least 5% of total body weight) which persisted long after the end of the intervention phase (>12 months). Turning to less commonly-employed theories grounded in pedagogy such as Andragogy may help

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\(^{47}\)The health belief model contends that beliefs about health problems, perceived benefits of action and barriers to action, and self-efficacy explain the presence or absence of health-promoting behaviors (Nguyen, 2014).
improve the educational elements and subsequent weight loss results of obesity interventions.

Another theoretical framework that is promising but underutilized is the Socioecological Model (SEM). In all of the aforementioned meta-analyses that included information about theoretical frameworks (Michie et al., 2009; Fitzgibbon et al., 2011; Kong et al., 2014; Beech and Jernigan, 2014) only one study (Yancey et al., 2006) explicitly employed the SEM\textsuperscript{48}. Because the SEM conceptualizes individual development and behavior as the product of complex interrelationships between the individual and different levels of their environment, SEM-based interventions would involve changing not only individual behaviors and beliefs, but also aspects of their external environment. This is an ideal approach because, as the previous two chapters have demonstrated, environmental barriers such as lack of access to healthy foods and lack of safe outdoor space for exercise are major barriers to weight loss for many black women. More specific recommendations for incorporating the SEM into interventions will be discussed below.

\textit{Duration}

One other element appears tenuously related to study efficacy is duration. Interventions that are too short are unlikely to produce lasting changes in participants’ health, while interventions that are too long run the risk of causing fatigue and corresponding reductions in engagement and adherence\textsuperscript{49} (Walker and Gordon,

\textsuperscript{48} Unfortunately, this study did not yield clinically significant weight loss for its participants, but this probably had more to do with the absence of cultural tailoring elements, the lack of a dietary component and low participant adherence.

\textsuperscript{49} Adherence can be described as fidelity to the prescribed elements of the intervention, or how closely participants actually follow the treatment/intervention plan. In an intervention based on subjects
Bronner and Boyington (2002) found that longer intervention duration was associated with greater weight loss across the eleven African American-targeted studies they analyzed. In Fitzgibbon and colleague’s 2012 meta-analysis, the study with the single highest average weight loss was that of Banks-Wallace (2007), who implemented a 12-month physical activity intervention which yielded an average change of -18.52 lbs. In Walker et al.’s (2014) meta-analysis, the study that produced the highest average weight loss was that of Karanja et al. (2002), who found that participants who came to at least 75% of the intervention sessions (involving nutrition counseling, physical activity counseling, goal-setting, social support promotion and barrier identification/removal) over the course of 9 months lost an average of 13.67 lbs, compared to the 0.9 kg lost by participants who attended less than 75% of sessions.

Although these limited findings suggest, to a degree, that longer interventions are more effective, one can’t simply assert that study length has a direct relationship with efficacy. This would imply that the most effective studies are attending weekly exercise classes over the course of a year, for instance, subject adherence would be the percent of subjects who attended sessions on a weekly basis. Unfortunately, Bronner and Boyington do not specify the strength of the association between study length and efficacy. At the same time, Banks-Wallace’s intervention had one of the lowest retention rates, at 62%, which may have been related to the length of the study. 9 months represents the median length of participation in this study, as participants remained enrolled for between 6-12 months. That said, only 56% of participants attended at least 75% of sessions, which is a particularly poor rate of adherence. Emphasis must be placed on to a degree because the evidence for this claim (that longer studies are more effective) is incredibly limited. Indeed, Bronner and Boyington’s (2002) study was the only one to explicitly report that longer study duration corresponded with more more weight loss, and the examples of Banks-Wallace and Karanja et al. are nowhere near sufficient to reach this conclusion with certainty.
necessarily the longest, which does not appear to be the case\textsuperscript{55}. Rather, it is likely more accurate to say that interventions must be \textit{long enough}, although no analysis that I’ve found has suggested that there exists some specific threshold duration for effective weight loss studies. Thus, while study length appears to be an influential element, any conclusions about the association between duration and average participant weight loss must be interpreted with caution\textsuperscript{56}.

\textbf{Suggestions for Future Interventions}

As the review of the literature indicates, the most effective and sustainable weight loss interventions for African American women involve: 1) a group design set in 2) existing community spaces employing 3) racially concordant and, ideally, community-dwelling lay/peer interventionists, 4) elements of cultural tailoring, 5) both diet and exercise-focused elements and 6) a formal maintenance phase. Whenever possible, all of these components should be included in the design of interventions. Limited evidence suggests that sufficient study duration may also be important, although it remains to be determined whether or not there’s a specific minimum length of time that qualifies as “sufficient.” And while the available evidence suggests that there’s no relationship between theoretical framework and study efficacy, the lack of interventions employing theoretical frameworks other than the social cognitive theory (SCT) indicates the need to explore a more diverse set of models. More specifically, less-studied theoretical frameworks and components such

\textsuperscript{55} West et al. (2007) for example, found that weight loss among their participants actually decreased between months 13-18 of their study.

\textsuperscript{56} Surprisingly, study duration has been shown to be unrelated to participant retention (Walker and Gordon, 2014; Seo and Sa, 2008). This finding is further evidence that the links between study duration and efficacy are tenuous and require further investigation.
as Andragogy-based adult learning principles (Bronner and Boyington, 2002) deserve further investigation.

Another underutilized and potentially useful theoretical framework is the socioecological model (SEM). The SEM holds particular promise in light of the complex and interconnected array of factors underlying the high prevalence of obesity among black women. The paucity of interventions that produce lasting weight loss may have to do with the fact that very few interventions address environmental factors along with individual behaviors. Interventions based entirely on behavioral self-management that locate the solutions to obesity exclusively within individuals dominate the field. But these interventions are, by and large, insufficient when it comes to producing and maintaining clinically significant weight loss. Even if a given intervention leads to meaningful changes in diet or exercise, the absence of easily accessible healthy foods or safe spaces for exercise in many African American communities make maintaining these behavioral changes or achieving significant weight loss unrealistic. While the previously cited meta-analyses indicate a handful of elements that may promote intervention efficacy, they also reveal that the vast majority of black women in weight loss interventions do not experience lasting, clinically significant weight loss. Walker and Gordon (2014), for instance, only identified four studies that produced clinically significant weight loss among the 25 they analyzed.

More than one study has indicated that African American women have similar levels of adherence and motivation as women of other races/ethnicities taking part in the same obesity interventions, but still lose less weight (Fitzgibbon et al., 2011;
Kumanyika et al., 1991, 2002; Wing and Anglin, 1996; West et al., 2008; Ard, Rosati and Oddone, 2000). In other words, there is little to no evidence that black women are any worse at behavioral self-management; in fact, some studies have indicated that black female participants in weight loss studies report longer-lasting maintenance of weight loss than white participants, even though they lose less actual weight during the course of the intervention (Kumanyika et al., 2002). This convoluted and seemingly contradictory finding indicates the possibility that obesity interventions themselves may deserve the blame in explaining the black-white female weight loss gap in these studies. If adherence is similar between African American and Caucasian participants but weight loss outcomes are still poorer for black women, this likely suggests that the intervention methods are not fully addressing the unique needs of black women.

In all likelihood, the black-white female weight loss gap in these studies is related to the cultural and socioeconomic factors underlying obesity among black women which I’ve already enumerated, and which most interventions fail to address. As such, it seems even more imperative to further explore SEM-based interventions that simultaneously address as many of these factors as possible, paying special attention to the role of the outside environment. While it may be more complicated to alter both individual behaviors and elements of the surrounding environment, this multi-layered approach can be implemented in creative and simple ways. One way of addressing both the issue of healthy food access and lack of safe spaces for physical activity is through the creation of community gardens. Community gardens can be a sustainable source of fresh, locally grown produce and a space for safe, low-pressure
physical activity in the form of gardening. Community members themselves can decide what kinds of fruits and vegetables they want to grow, and they can distribute this produce to the larger community through farmers’ markets and community-supported agriculture (CSA) shares. Many, such as Hung (2004), have demonstrated the successful creation and maintenance of community gardens in low-income urban communities of color.

Farmers’ markets and CSA initiatives, whether they are supplied with produce from community gardens or from different sources, are other important tools for improving healthy food access in black communities. Farmers’ markets have the added advantage of being mobile and flexible with regard to what items they carry. The aspect of mobility helps address the lack of time and private transportation faced by many black women, while flexibility with regard to items sold allows for an emphasis on foods that are part of African American cuisine. CSA programs, in which community members receive pre-set “shares” of produce supplied by one or multiple local growers, are another promising model for improving food access for a number of reasons. For one, CSAs are delivered consistently (typically on a weekly basis) either to shareholders’ homes or to a designated community pick-up spot, which helps overcome transportation barriers to accessing healthy produce. Also, CSAs provide a constant source of revenue for CSA-providing farmers, which supports the maintenance of small and local farms and the establishment of a community-based local food system, which benefits both the local food environment and the local economy. CSAs and farmers’ markets can also create nutritional education opportunities for local youth and adults alike, which aids both obesity
prevention and treatment efforts. One example of such an education opportunity is cooking classes which are sensitive to what ingredients are available in a given neighborhood, and which teach healthier methods of preparing traditional African American foods. These classes can be offered at farmers’ markets or among members of CSA programs (using CSA-provided ingredients) at members’ homes or the designated community pick-up spot.

In addition CSAs and farmers’ markets that partner with state-sponsored food assistance programs to allow participating members to use SNAP, WIC or EBT (“food stamps”) for farmers’ market and CSA purchases can make healthy produce more financially accessible. Such programs have already been established across the country, from California (CA Office of Systems Integration) to Middletown, CT (http://neatmiddletown.org/). Other socioecologically informed approaches that can be incorporated into obesity interventions include community dance classes, home-based exercise lessons, walking groups that provide transportation to safe spaces for exercise or which alter existing infrastructure to improve neighborhood safety and walkability (e.g. the construction of walking paths, as described in Gustat et al., 2012) and healthy diet and physical activity-promoting advertising to offset existing junk food advertisement.

Beyond the incorporation of a socioecological theoretical framework, the inclusion of community-based participatory research (CBPR) strategies also optimizes the efficacy of weight loss interventions. By involving participant and other community stakeholders at all levels of the study, CBPR allows for a deeper understanding of the barriers to weight loss faced by black women, and the ways in
which these barriers can be addressed. Involving community members in study design provides a sort of expertise that professional researchers lack: expertise on the local community and daily life in this environment. Moreover, CBPR empowers community members to take ownership of interventions, and to support each other’s weight loss efforts, even after the intervention is over. CBPR is also compatible with the tenets underlying the SEM framework in that it incorporates “experts” on the local community (community members) in study design and delivery.

Admittedly, the efficacy of adult learning principles, the SEM and CBPR study design have not been explored extensively in the context of obesity interventions for black women. Moreover, proposing the inclusion of all of these elements makes sense in the context of a hypothetical “ideal” intervention, but the practicability of including all of these elements in real-world interventions is uncertain. But given the paucity of effective interventions and the general tendency to ignore environmental barriers to weight loss in existing interventions, these suggestions deserve serious consideration and further study. The heart of the matter is that most of the interventions currently used to address the issue of obesity among black women are not displaying clinical weight loss or long-term weight loss maintenance. As such, creative and novel approaches to reducing obesity may be precisely what are needed to reverse the course of this major health crisis that so disproportionately affects black women.
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Conclusion

As this study has demonstrated, obesity among African American women is the product of a wide array of interconnected cultural and socioeconomic factors. While these factors must be understood separately to a certain degree, they must also be understood as interdependent in their effects and intersectional in ways that define the obesity crisis among African American women. The cultural norms/values and demographic trends I have discussed—namely multigenerational households, single motherhood, teenage motherhood, traditional foods and attitudes towards food, expectations of female caregiving and strength, and larger body size ideals—are too often overlooked in the design and implementation obesity interventions. They are also, not often enough, viewed in the context of the socioeconomic factors with which they intersect to produce uniquely obesity-promoting circumstances for African American women.

That said, these cultural factors must be understood as not obesity-promoting in and of themselves. Given different social and economic contexts, many of these cultural factors might be adaptive in ways that actually support weight loss and healthy weight maintenance. For instance, female strength as a cultural expectation of African American women may be a source of stress that leads to maladaptive coping behaviors such as overeating, but it is also a source of fortitude, endurance and self-efficacy and identity that would help most individuals feel empowered to make and commit to positive health behavior changes. Understanding how cultural values such as female strength or larger body size ideals can promote obesity in certain contexts, but protect against it and support weight loss efforts in others, is essential if we are to
understand how African American culture is tied to obesity among black women, but also tied to the solutions to obesity. Developing this sort of intersectional and holistic understanding is the necessary basis upon which the public health establishment can advance the body of research on obesity among African American women, rather than repeating the same ineffective interventions that currently dominate the field.

The socioeconomic factors I discussed in Ch. 2, (lack of supermarkets and other sources of healthy foods in primarily African American neighborhoods, racially targeted food advertising, neighborhood disorder and corresponding lack of access to safe outdoor spaces for physical activity, and the stress associated with racial discrimination) are the necessary context for understanding the ways in which cultural norms/values and demographic trends characteristic of African American culture do, at present, contribute to obesity. Larger body size ideals combined with a local environment that doesn’t support outdoor activity, for instance can just make exercise seem that much less appealing. At the same time, many of these socioeconomic factors might be considered risk factors for obesity independent of cultural factors. Lower supermarket access and the stress and negative emotions associated with racial discrimination don’t need to work in tandem with expectations of female strength, for instance, to foster obesity among many African American women. These factors can be offset with elements of interventions such as supportive counseling or community-shared agriculture programs that accept food stamps, but ultimately, they need to be addressed with broader efforts like infrastructure development and policy changes. The roots of problems such as lack of healthy food access in predominantly African American neighborhoods, which involve broader
issues like racial discrimination, poverty, residential segregation, insufficient funding for food assistance programs and an agricultural system that supports the production of large commodity crops like corn and soy, are what ultimately need to be addressed. In other words, the factors underlying the high rates of obesity among black women should be addressed with obesity interventions, but they must also be addressed with broad-reaching policy solutions based on the realization that obesity is so much more than a result of individual choices.

Until these broad policy solutions become a reality, however, obesity interventions will remain fundamental in addressing this health issue. The two specific frameworks I have promoted for the purposes of improving future obesity interventions are the socioecological model and community-based participatory research. The socioecological model takes the individual’s environment (which it conceives of as multi-layered and existing in a state of dynamic interrelationships) into account and pushes for solutions that are located not only in individual behavior, but also in removing environmental barriers to weight loss and identifying or establishing supportive elements within the environment. Community-based participatory research, on the other hand, involves community members from the ground up in intervention design and delivery, thereby affording interventions a superior understanding of the local environment, access to pre-existing community social networks, and community-dwelling pillars of support for women attempting to maintain weight loss after a given intervention has ended.

These frameworks are useful for conceiving of and implementing successful interventions conceptually, but more specific strategies are also required. The
incorporation of technological elements, such as cell phone-based applications for monitoring calorie intake and internet-based counseling, cooking and exercise lessons may be helpful components in interventions where face-to-face contact is limited, or where participants have trouble engaging in activities outside of the home. School-based interventions involving components such as cooking lessons or access to a community garden can help women feel like weight loss behaviors benefits their children as well as themselves, in addition to preventing obesity in future generations. And work-based interventions can help women tap into coworkers as additional sources of support, in addition to potentially enlisting the financial support of employers who recognize that healthier employees translate into lower insurance premiums.

All told, obesity among African American women is a deeply complex and difficult issue grounded in a multitude of interconnected socioeconomic and cultural factors. But despite the many barriers to weight loss that African American women face, and despite the very small portion of interventions that result in clinically significant weight loss, there remains enormous potential for addressing this issue with more holistic and creative interventions based on underutilized theories such as the socioecological model. Moreover, addressing obesity and its associated risk factors will not only improve the health of the many African American women with preventable chronic diseases like diabetes and CVD, but it will also improve the health of entire families and communities, in which women are central.