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A Minority Perspective on the Public Health Response to the Obesity Epidemic

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Abstract

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DC, Life University, 1997

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Dissertation Submitted in Partial Fulfillment

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Abstract

Obesity is currently viewed as one of the most important health concerns in the United States. Researchers have minimally investigated perspectives surrounding obesity within the African-American female population. This lack of research presented a gap in knowledge concerning the perceived social, environmental, and cultural influences of obesity within this population. The research questions asked African-American females about their views toward these influences. This research was guided by tenets of the social cognitive theory and the transtheoretical model for behavioral change. Thirteen African-American females participated in the interviews. The data collected were reviewed and coded using word frequencies and themes. Findings included recurring themes of cultural influences, social disparities, and the lack of access to healthy food sources and health providers. Positive social change could result from this research to help enlighten public health professionals and community planners to understand the perspectives of African-American women's belief systems surrounding obesity. The information delivered by this research could possibly empower the participants to address the issues within their communities with civic leaders and policy makers to create and sustain needed change.

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Chapter 1: Introduction to the Study

Introduction

Obesity is one of the most important health concerns in the United States and globally. During the past several decades, obesity has grown into a major global epidemic with nearly 500 million people overweight worldwide (Hammond & Levine, 2010). The prevalence of overweight and obesity in developed and developing countries is increasing at an alarming rate. The high prevalence of obesity combined with the concomitant rate of increased risk factors for chronic diseases such as diabetes, cardiovascular disease, premature death, and some cancers makes the obesity epidemic a significant public health concern (Kelly, Yang, Chen, Reynolds & He; 2008, Hammond & Levine, 2010; Centers for Disease Control [CDC], 2012). Nationally, nearly 30% of Americans are considered obese, but minorities, populations of color and persons of lower socioeconomic status (SES) are disproportionately affected (Kumanyika et al., 2007; Charleswell, 2014; James, Fowler-Brown, Raghunathan, & Van Hoewyk, 2006). Research in this area can be distinctive as it offers insight on the perspectives of minority and low SES women regarding the obesity epidemic. The focus could enlighten knowledge on the disadvantages and limited economic opportunities of the built and social environment, offering clues to hidden variables to the obesity epidemic sustenance.

In this chapter, I will present background information on the obesity epidemic and how it is perpetuated among low SES and minority populations, the social and health implications and the effect on global economic systems. The problem statement will reiterate the challenges presented by the sustained epidemic and how a knowledge gap

could be addressed by discussions with a population that is socially and economically involved. A conceptual framework and nature of the study will be qualitatively driven using a phenomenological concept. I then present key term definitions, limitations, delimitations, and assumptions to detail how the study was shaped, followed by sections for a significance and summary that emphasize the need to address obesity from an economic and policy standpoint.

Background

Obesity can be defined as a body weight that conveys a significant risk for adverse health outcomes. Obesity-related risk factors and diseases formerly seen only in adults are increasingly being recognized in adolescents and young children (Caprio et al., 2008; Kelly et al., 2008). Although childhood obesity is increasing in all ethnic and racial groups, the prevalence is higher in non-white populations (Kelly et al., 2008, Eli, Howell, Fisher, & Nowicka, 2014). Caprio et al., indicated that the significant rise in obesity in children has been accompanied by an increase in the severity of associated diseases in youth. Pediatric obesity has proven to not be merely a cosmetic issue, but a potential source of ill health for children and adults who were obese as children (Eli et al., 2014; Reilly, 2006). Reilly asserted that the obesity epidemic was likely to herald an important future public health burden from diseases such as diabetes, cardiovascular disease, and endometrial cancer. This signals an important concern from a public health perspective of the importance of the maintenance of healthy weights with pediatrics.

Indications are that the obesity epidemic is the result of unintended consequences of many individual, political and social decisions (Greener, Douglas, & Teijlingen 2010;

Peters, 2005). To shape the environment and develop comforting lifestyles, there was also an apparent lack of an understanding by the developers of the potential by-products due to this change in the social and economic systems. As these developers created change and an environment evolved delivering the desires of convenience and efficiency, there was little or no consideration of the rise of an obesity epidemic as a result (Peters, 2005, Reilly, 2006; Slyper, 2004; Greener et al., 2010). If obesity has been caused by the economic and socio-cultural system that has been built during the past century, the trend must be reversed by modifying the on-going systems (Peters, 2005). Modifications of the obesogenic system should follow the examples of common place changes that did not exist only decades ago. Social changes such as smoke-free environments, curbside recycling, and widespread seat-belt and child restraint use are common items that required concerted efforts by communities and social and political sectors of society (Peters, 2005; Texeira, et al., 2015). An important start in slowing the obesity epidemic would be to focus on the epidemic as a true public health crisis and educate the public about the causes and consequences (Reilly, 2006, Swinburn, Gill & Kumanyika, 2005, Peters, 2005, Charleswell, 2014).

Recent intervention studies have addressed how disparities patterned by a lack of access to socioeconomic resources and the environment have contributed to the development of obesity among minorities (Gordon-Larson, Nelson, Page & Popkin, 2005; Fredriksen-Goldsen, Kim, Barkan, Muraco & Hoy-Ellis, 2013). An understanding of the perspectives of obesity among minorities and the socioeconomically challenged is an important education intervention, especially for a population that may not view

obesity as a health concern. McKinnon (2010) stated that the rise in obesity in the United States, the failure of interventions, the implications for public health and the costs to the economy in terms healthcare, disability rates and absenteeism are profound.

The economic effect on the U.S. economy has been identified by business analysts in at least four categories linked to the obesity epidemic. These four categories are the effects in direct medical costs, productivity costs, transportation costs, and human capital costs (Hammond & Levine, 2010). The effect on direct medical spending is due to the link of the obesity epidemic with risks for several serious health conditions. Direct medical spending on associated diseases such as type 2 diabetes, coronary heart disease (CHD), stroke and asthma for example, is likely to increase with rising obesity levels (Hammond & Levine, 2010; Withrow & Alter, 2011).

One of the more cited economic effects of the obesity epidemic is on direct medical spending. The correlated risks for serious and chronic health conditions including direct medical spending costs on diagnosis and treatment of the associated conditions is likely to increase with the steady rise of obesity levels (Hammond & Levine, 2010). At least five diseases can be specifically linked to obesity. These are hypercholesterolemia, type 2 diabetes mellitus, CHD, hypertension and stoke (Hammond & Levine, 2010, CDC, 2015). The medical costs associated with these chronic diseases can be substantial, with estimated yearly costs reaching 10% of all medical spending. In the year 2008, this figure reached nearly $147 billion with an addition $14 billion for adolescents (CDC, 2015, Hammond & Levine, 2010, Winthrow & Alter, 2011). In addition to these immediate costs, current childhood obesity costs suggested future direct

medical spending as overweight or obese children more often than not become overweight or obese adults.

In addition to the direct costs of obesity, a number of indirect costs are a part of the overall cost of obesity. Indirect costs leading to productivity loss can be related to absenteeism (costs due to employees being absent from work due to obesity-related reasons) and presenteeism (decreased productivity of employees while at work) (Hammond & Levine, 2010; Kelly at al., 2008). To identify a causal relationship between productivity and obesity, estimates of observables such as health-related work absence, paid time off for sick leave due to illness, or adjustment of work schedules to accommodate individual employees can be used (Hammond & Levine, 2010). Hammond and Levine asserted that obesity can contribute significantly to the total loss of productivity if obese individuals are less productive than their counter-associates while present at work.

Economic losses due to absenteeism and presenteeism are compounded, when obesity-associated illnesses lead to increased disability and insurance payments, which can represent higher company costs (Hammond & Levine 2010; Kelly et al., 2008; CDC, 2015). Premature mortality and the resultant decrease in quality-adjusted life years (QALYs) can represent other indirect losses due to obesity (Kelly et al., 2008). The economic effect in the United States alone is substantial without extrapolation to the global population and this effect underscores the importance of the obesity epidemic as a focus for policy and future research (Hammond & Levine, 2010; CDC, 2015). Three important facets of the effect on the economy are: a) the significant direct medical costs,

with amounts as much as 100% higher than for healthy weight individuals; b) productivity costs due to absenteeism, presenteeism, disability and premature mortality; and c) economic impacts associated with transportation costs and health insurance expenditures (CDC, 2015; Hammond & Levine, 2010).

Obesity is a major public health and economic problem of significance and has risen to the top of policy and programs in many countries. The prevention of childhood obesity has provided a compelling mandate for urgent action (Swinburn, et al., 2005). The obesity epidemic is a major health crisis among children, adolescents, and subsequently into adults as its prevalence continues to increase and to grow unchecked due to the prevailing socio-political, cultural and economic influences not being addressed by present interventions (Knai & McKee, 2010).

The purposes of populations-focused public health campaigns are to garner change that will improve the health of specific segments of the population (i.e., individuals suffering the morbidities of obesity or with a familial history of obesity). Although considerable work has been done to assess the burden of obesity and its major determinants, still debate remains on a specific set of actions that should be undertaken with purposed interventions (Swinburn, Gill & Kumanyika, 2005). Interventions are needed to develop a framework for describing and guiding decision-making in obesity prevention that can recognize both the value and limits of current and existing evidence while bringing attention to other key variables sustaining the epidemic (Swinburn, et al., 2005; Teixeira, et. al, 2015).

Effective responses must go beyond interventions that focus primarily on a specific individual, social, or environmental factors and instead embrace a multi-level intervention that addresses both the population and environment (Lakerveld et al., 2012). Approaches that exclusively target individual-level determinants continue to have little or no effect on the overall rates of obesity and have not recognized the factors in the physical, socio-cultural and socio-economic environment that continue to drive the obesity epidemic (Lakerveld et al., 2012). Intervention strategies included in a population- focused campaign must be free from bias or inferences of stigma, in to address obesity as a social justice issue (Puhl & Heuer, 2010). In addition, public health campaigns that focus on obesity should be delivered by professionals who understand the complexity of factors effecting individuals who are obese. Individuals may not be obese based solely on their own volition, but they often are affected by environment, economic, and social conditions that contribute to their physical health (Puhl & Heuer, 2010).

Environmental obesogenicity must be considered in communities of color where a public health intervention is particularly indicated and obesity risks are greatest (Yancey et al., 2004; Kumanyika et al., 2007). The challenge is to combine measures that can reduce the obesogenicity of the social and physical environment while reducing the negative effect on the individuals who reside in these environments (Lakerveld et al., 2012). Given the increasing public health importance of obesity in economically developed and developing countries, an accurate estimate of the global burden of this condition is critical to the development of public health strategies for primary prevention and treatment (Kelly et al., 2008).

A gap in knowledge exists concerning the cultural determinates of obesity. Attitudes, beliefs and values in relation to food, physical activity and body size have inputs that have only minimally been investigated (Swinburn, 2008). A study focusing on perspectives of any combination of these variables could illuminate a predisposition for unhealthy weight gain. An inquiry of this type is needed to approach these and other variables unique to a population that is involved economically and associated with environmental disparities that are linked to obesity (Gillison, et al., 2015). The views of a selection of overweight to obese participants can add new meaning to obesity discussions. Exploring the personal perspectives and ideas of the involved individuals, their families, and their cohorts could help fill the knowledge gap related to obesity and the social and environmental elements that sustain it. This could also help address the question regarding the knowledge base of the involved population. This is the gap explored in my study.

Problem Statement

Obesity among minorities and populations of lower SES has become a major health issue. Two major challenges presented by the obesity epidemic are how to reduce the overall burden and how to reduce disparities for the populations most affected (Swinburn, 2008). Perpetuated by risk factors of built environment, poor diets, age and lack of physical exercise, obesity incidences continue to rise (Sallis, Floyd, Rodriguez & Saelens, 2012; Hill, Wyatt, Reed & Peters, 2003). Obesity rates are even higher among minorities and lower socioeconomic groups due to financial barriers, lack of access to

healthy foods, the convenience of low nutrient foods and cultural influence (Novak & Brownell, 2011).

Puhl and Heuer (2010) asserted that public health efforts must address the multiple forces that contribute to the obesity problem in the United States. It is important to recognize that individual behaviors are often shaped by an obesogenic environment, defined as an environment causing or creating the state of obesity (Puhl & Heuer, 2010; Guthier & Krajicek, 2013). In this respect, interventions must address environmental changes, in addition to the relationship between the obesogenic environments and the involved population to arrest the driving force in the obesity epidemic. Environment is especially important when it comes to obesity as it encompasses a range of physical and social elements that can create a climate that promotes increased energy consumption and reduced energy expenditure (Papas et al., 2007). Ball (2010) asserted that the obesogenic behavior could be indicative of deeper social forces. For example, the ability to access affordable, convenient low nutrient foods, the development of jobs that require less physical labor, and the ability to move quickly from one place to another have resulted in a more leisured and sedentary society (Hill et al., 2003; Ball 2010).

This research focus was directed toward the African-American female minority, as this population experiences a high prevalence of obesity with extreme rates equaling 13.7% (Ogden, 2009). The disproportionate obesity burden among African-American and poor women is well documented but there exists a specific need for an appreciation of the unique perspectives of this population with regard to the obesity epidemic (Davis et al., 2005; Ard, 2007). The culture of the African-American community does not place a high

value on thinness and often when the cost of healthy nutrition is balanced against other pressing financial responsibilities, nutrition becomes a secondary priority (Ard, 2007; Kirby, Liang, Chen, & Wang, 2012). The lacks of sufficient data on the weight-related behaviors of African-American females explain why interventions lag in promoting alternative responses to the environment (Ard, 2007; Davis et al., 2005; Gauthier, et. al, 2013). The questions for research to consider are why African-American females experience such a high prevalence of obesity and why has not this knowledge translated into intervention. Odgen (2009) indicated that differences in weight perception and the aspects of social and cultural input were significant.

Purpose of the Study

The purpose of this study was to explore the knowledge gap regarding the perspectives among African-American women concerning the cultural determinant of obesity. These perspectives involve attitudes, beliefs, expectations, and perceptions regarding food and physical activity and how they have become inter-woven into their society. The determinants that can specifically affect all ethnicities should be a focus of any obesity intervention campaign as disparities range throughout all races, especially those of lower SES and poor environments (Novak & Brownell, 2011). The focus of this research study was to query African-American females who were obese or were associated with friends or family who were obese concerning how and where these attitudes had developed and why they continued to exist. Davis et al., (2007) indicated that the African-American subculture hinders weight management efforts by the general

acceptance of cultural and preparatory methods that may not meet the standards for healthy nutrition.

In this study, I evaluated whether determinants within the built or social environment could further uncover the present racial and SES disparities in obesity as seen by African-American women uniquely involved. The use of a narrative design can be effective in garnering input or perspectives from this population and from their point of view (Lovasi et al., 2009). An investigation of this type could offer informative discussion on the influence of the built environment and its effect on a population's behavior and health. A study based on the perspectives of a population that lives in an obesogenic environment as a normal way of life can offer increased insight into why involving interventions to changes in their lifestyle and current conditions are slow or difficult to achieve (Sallis, et al., 2012).

Although considerable work has been done to assess the burden of obesity, debate continues on the most appropriate set of actions to diminish it. Swinburn, et al., (2005) asserted that a framework that systematically described and guided decision-making and recognized both the value and limitations of existing evidence was needed. Cost, ethical and opportunity concerns are routinely involved in intervention campaigns, but only when evidence has proven the effectiveness of the intervention are decisions of cost versus benefit possible (Holm, 2007, Gillison, et al., 2015).

A model that expresses positive change is needed to address obesity as a public health issue. Political and community involvement in a social action, when an expressed need for change in the physical or cultural environment is uncovered, leads to

empowerment and positive social change (Story, 2011). Behavioral change that is needed to stem the obesity epidemic is contingent on the presence of access to healthy foods and safe environments for physical activity (Puhl & Heuer, 2010; Knai & McKee, 2010).

Biological, psychological, behavioral and social factors have been unable to fully explain or curtail the obesity epidemic (Booth, Pinkston, Walker & Poston, 2005). Because studies are still needed to provide further research on the influence of the built and social environment on obesity, my goal to provide an added perspective from the views of the population directly involved. The direct views of the involved population could help researchers in developing ways of eliminating barriers that may be invisible to outsiders (Booth et al., 2005). This inside perspective could help facilitate the successful elimination of obesogenic environments by offering evidence of the influence of the differing norms and values of communities related to eating, physical activity or other social activities (Papas et al., 2007). Booth et al., (2005) asserted that although research has theorized that diet and physical activity patterns have had a major effect on obesity prevalence, interventions specifically targeting these variables have had little progress in stemming the epidemic. I will attempt to further uncover the influence of cultural and environmental influences on obesity especially within the African-American population. The prevalence of obesity among Black women in the United States is higher than in most other subgroups. An understanding of this disparity could help in the design of appropriate and targeted interventions and a research inquiry of this involved population may empower them to address obesity as an illness rather than merely a social issue (Ogden, 2009; Charleswell, 2014).

The obesity epidemic continues to be multi-factorial and, as such, the focus of targeted interventions must also include the interaction of social and environmental elements (Booth et al., 2005; Papas et al., 2007). An understanding of the effect of the environment on obesity can provide information necessary for the developing successful community-based prevention efforts (Teixeira, et al., 2015; Papas et al., 2007). The public health approach to the obesity epidemic suggests that before judgments are made concerning individuals choosing healthy behavior determinants, access to enabling conditions and resources should be made available (Puhl & Heuer, 2010). This suggests that behavioral change could be contingent on reasonable access to healthy food resources and safe environments.

To investigate a model for positive social change related to obesity, I interviewed members of local churches individually or as a focus group, who can identify with obesity personally of by family association. Volunteers were recruited through church announcement bulletins after permission is granted through the ministerial leadership. The volunteers were posed open-ended discussion questions for their perceptions relating to obesity and the influence of the social or physical environment. The perspectives of these participants could be central the investigation to increase the knowledge of obesity from a lesser researched viewpoint.

Research Questions

All research is guided by research questions. In this narrative qualitative study the research questions were:

1. How do the African-American females feel that the built environment (i.e., the social and physical elements), has effected and contributed to the obesity epidemic?
2. What are the perspectives of obese or overweight individuals on how their current environment with respect to neighborhood or social inputs helps or hinders obesity efforts?
3. What do the study participants view are the effects of the cultural, social or familial environment on weight gain specific to African-American women?

Conceptual Framework

A focus that includes the interaction between the social and physical environment and how the population's health is influenced beyond individual risk factors is now deemed a necessary part of obesity intervention and research (Booth et al., 2005; Gillison, et al., 2015). The social cognitive theory (SCT) can be applicable here.

The social environment includes family, friends, coworkers and health professionals that influence health decisions and behavior and thereby affects health. The SCT explores the reciprocal interactions of people, their environments and the psychosocial determinates of health behavior (Rimer & Glanz, 2005). The theoretical basis for this study uses the SCT and the transtheoretical (stages of change) model by Prochaska (1992). The SCT suggests how individuals can acquire certain behaviors, whereas the transtheoretical model (TTM) suggests movement along the processes of change within a continuum of motivational readiness for behavior change (Geo-Balch, Privett, & Yamaguchi, 2011).

As cultural and ethnicity determinants provide a set of rules for normative and pragmatic behavior, the frameworks as described by the SCT and TTM offer a diagram for changes toward healthier behavior patterns and provide stages that the participants can follow and maintain. Both theories also provide for the development of self-efficacy, an attribute necessary to complete the change stages (Caprio, et al., 2008). I offer a more detailed discussion concerning the applicability of these frameworks for obesity research in Chapter 2.

Nature of the Study

The nature of the study was qualitative. In a qualitative study, the researcher collects data as an active participant, designs the methods by which the data is collected and used in order to draw conclusions (Lester, 1999; Garip & Yardley, 2011). This process in qualitative research is nearly as important as the conclusions themselves.

This study was a narrative approach attempting to illuminate a certain phenomenon (i.e., perspectives on obesity) as perceived by the participants in a case study type format. Through the use of inductive qualitative methods such as focus interviews, discussions and participant observations, this study will collect data and present it from the perspective of the volunteer participants. Phenomenology was originally chosen as the method of data collection in this study as it has a primary concern with views from the experience of the involved individuals. A narrative approach however will allow the participants to speak from their own experiences and expound upon them.

Creswell (2006) indicated that a narrative approach in qualitative research is one with a specific focus on the stories told by individuals. As such, the narrative can be both a method and phenomenon of study as it will present experiences in lived and told stories of the inquired individuals. This type of inquiry is important to show how individuals are enabled or constrained by social resources within their society (Jansen, 2010; Creswell, 2006).

Although understanding the contribution of individual environmental factors to the obesity epidemic would be useful in the development of intervention campaigns, the feasibility of incorporating changes in to the mainstream lifestyles of communities could be difficult. A more immediate solution would be to identify coping methods for the involved population until change can occur (Hill et al., 2003). It is necessary to continue to analyze the effects of neighborhood environments, as existing conditions represent the broader social and community contexts within which individual obesity promoting behaviors occur (Singh, Siahpush, & Kogan, 2010). Because many aspects of the neighborhood environment that can influence obesity such as SES deprivation, concerns of safety, inadequate lighting and lack of access to healthy food sources are modifiable in time through social policies, it remains necessary to develop a primary focus on coping methods that can be immediately instilled in communities (Singh et al., 2010).

Interventions targeting identified high-risk groups must address ethical and social justice concerns including stigmatization and ideals of self-perception while remaining cost-effective (Eli et al., 2014, Holm, 2007,). The public health perspective in addressing a population's response to reduce the prevalence of obesity may also need to address

behavior change beyond that of obese individuals. The behavior change will need to include all members of the community and although this may affect some individuals negatively, the overall goal is to benefit all members of the population (Holm, 2007).

A limitation that exists in promoting alternative responses to an obesogenic environment is the lack of data on the weight-related behaviors of minorities, especially African-American women. This lack of understanding of the extent that maladaptive eating behaviors exist in this population may be identified as a combination of social, environmental and historical factors (Ard, 2007). Limitations such as ethical issues raised by interventions that specifically target high risk groups may bring about potential problems with social justice. Campaigns targeting high-risk groups though cost-effective can also violate a basic principle of justice that indicates how it becomes problematic to focus prevention only on high-risk groups unless they can be precisely defined and all inclusive (Holm, 2007, Schuklenk & Zhang, 2014). We as researchers therefore are making the assumption that the intervention will address all high-risk individuals within the population. In obesity interventions, an assumption is made that there is a need for a behavior change but this change must extend beyond just the identified obese or overweight (Holm, 2007, Eli et al., 2014).

Definitions of Key Terms

Key terms within this proposal are defined as they will be utilized throughout this study in respect to their relationship to the research.

Built environment: The environment that encompasses the aspects of an individual's surroundings, human-made or modified that are an external influence to that individual (Papas, et al., 2007).

Meta-ethnography: An interpretive approach that was initially developed for synthesizing ethnographic research in the field of education and is now one of the most developed methods for synthesizing qualitative data (Garip & Yardley, 2011).

Multi-factorial: A development or circumstance produced by a variety of elements or causes. Obesity is purposed to result from an interaction of an individual's genetic makeup and his health behaviors with the latter being strongly patterned by available access to socio-economic resources over a life course (James, et al., 2006).

Obesogenic: Factors in the environment that support being obese; such as how the environment is physically constructed, how the population's opportunities are influenced and an account of the barriers to food selection and physical activity (Powell, Spears, & Rebori, 2010).

Presenteeism: A determination when a subject or circumstance contributes to a down-turn or productivity loss while present at work (Hammond & Levine, 2010).

Quality adjusted life years (QALYs): An economic analysis which is a measure of health outcomes reflecting both lives saved and patients' valuations of quality of life in alternative health states (Hammond & Levine, 2010).

Limitations and Assumptions

In this study, I made the following assumptions:

- This qualitative inquiry has as its aim to receive a complete and detailed description from the participating subjects bringing to the fore-front their experiences and perspectives and can include ambiguities (Lester, 1999).
- Participants would be open and honest with their responses to the questions posed.
- Even though this inquiry may open doors to information previously not researched, results could not be generalized beyond the involved subjects (Lynch, 2007; Martin, 2008).
- An appreciation for a changing environment is a causative factor in the obesity epidemic and the environment is a logical place to intervene (Novak & Brownell, 2011).

In this study, limitations (elements over which the researcher has no control) were:

- The small sample size as often done in qualitative studies could create results that could not be generalized to like populations (Lynch, 2007; Martin, 2008).
- Random controlled trials (RCT) that could intervene in environmental or policy influencing factors are limited if not impossible in this style of research (Sallis, Story & Lou, 2009).
- Limiting interviews to females could distort reality and information due to gender bias.

Delimitations

Delimitations are described as the elements that the researcher can control which detail how the study is narrowed. Conscious exclusionary and inclusionary decisions regarding the sample population, the theoretical perspectives and variables are elements of a study's delimitations (Creswell, 2005).

In this study, I purposely directed a focus on the perspectives of primarily African-American women on the epidemic of obesity. Since a population limitation such as this might limit participants, a minority inclusion of low-income obese or overweight females could be included. The participants should not be a homeless population as the economic determinant that will be introduced could overshadow the focus on the effect of the environment of obesity. An interview segment could be directed to male participants to avoid gender limitations and present perspectives from both a male and female perspective.

Significance

Researchers and policy-makers agree that obesity is an epidemic. Economically, the obesity epidemic and the associated costs are estimated at nearly $100 billion a year, which has captured the attention of health plan services, employers and policy-makers (Withrow & Alter, 2011; Simpson & Cooper, 2008). This information however is of a lesser consequence when obesity continues to be listed as a secondary diagnosis, making it generally not a reimbursable medical benefit. This is significant as the treatment of the associated chronic ailments of obesity account for approximately 1.7% of medical treatment revenue (Wang & Dietz, 2002; Simpson & Cooper, 2008). The lack of

reimbursement for obesity can delay treatment and lead to lost opportunities to prevent the associated chronic diseases. Simpson and Cooper suggested the need for intervention campaign designs that incorporated medical providers and dietitians that could collaborate with healthcare payers to bring obesity to the forefront as a consequence and not primarily a secondary diagnostic condition.

Although obesity is a major public health issue, prevention and public policy have only recently given the epidemic significant attention. There is now a focus on individual education and addressing policies that once protected the food industry interests (Novak & Brownell, 2011). Obesity prevention interventions should continue by addressing policies that could change the relative prices of healthy and unhealthy foods either by subsidizing healthy foods or taxing unhealthy ones (Novak & Brownell, 2011; Hammond & Levine, 2010).

Novak and Brownell suggested that current interventions for obesity did not address population changes; rather presented theories more closely aligned with the medical model that focused on the individual and where weight gain is attributed: to poor health habits or lack of will power. The medical model view side-step the need for changes in the environment and promotes the stigmatization that accompanies an individual focus (Puhl & Heuer, 2010).

As previously alluded, the obesity epidemic is multi-factorial, having social, political and economic implications (Novak & Brownell, 2011). The public health perspective directs change to a large group of people and presents indicators where single theories have failed to sufficiently explain the obesity growth. To address and slow the

continued growth of obesity, interventions must incorporate the cultural values and themes of the targeted population (Gaines, 2010, Booth, et al., 2005).

Summary

Obesity is a major health and economic problem of global significance. It is highly prevalent, rapidly increasing and is associated with a wide range of chronic conditions (Swinburn et al., 2005; CDC, 2015). Public health efforts must address the multiple forces contributing to obesity including the physical and social elements of the environment. Research has presented evidence of the relationship between the built environment and the prevalence of obesity especially within lower SES neighborhoods. The lack of access to physical activity facilities and healthy food sources sustains the obesity epidemic within this high-risk population and challenges to reduce this disparity remain insufficient (Booth et al., 2005). Research attempts to improve the understanding of modifiable obesogenic determinants, discover entry points for intervention approaches and for determining factors for implementation of change measures must uncover the influence of the social and environmental factors in the obesity epidemic (Lakerfeld et al., 2012).

The economic effect of obesity has become substantial with ever-rising direct and indirect costs. With medical spending and reimbursements approaching $150 billion annually, this effect underscores the economic importance of the obesity epidemic as a focus for policy change and a topic for future research (Hammond & Levine, 2010). McKinnon (2010) asserted that not only does the widespread obesity epidemic increase costs to healthcare and economic productivity, but those obese individuals often do not

bear the full cost associated with increased weight. These are subsidized by increased healthcare costs borne by others, such as employers, insurance risk pools and taxpayers (McKinnon, 2011). This economic perspective provides further rationale for public health, the medical community and policy-makers to lobby for legislation to support interventions for the reduction and treatment of obesity.

In Chapter 2, I focused on peer-reviewed literature on the obesity epidemic, noting associated theoretical foundations, comparison and contrasting methodologies to this purposed study. Information was presented on the links between obesity and the built environment with a primary focus on the African-American female which remains a high prevalence group. In Chapter 3, I provided the methodology of the study.

Chapter 2: Review of the Literature

Introduction

The obesity epidemic in the United States continues to escalate. This fact is especially true among minorities and the economically disadvantaged, seemingly stemming within their communities (Yancey et al., 2004; Crawford et al., 2010; Kirby et al., 2012). The problem statement in this study references how not only obesity is a major health issue, but the lack of a successful abatement has presented other challenges. These challenges include a needed reduction of the overall burden of obesity on both affected individuals and their families and of the associated disparities and stigmas. These are important issues of concern; however, the associated morbidity and health-associated concerns of obesity remain primary (Swinburn, 2009; CDC, 2015; Kirby, et al., 2012).

To better understand how obesity-related health burdens and disparities might relate to obesogenic environments, peer-reviewed studies related to disadvantaged individuals or areas identified by low SES or ethnicity. This chapter is divided into four major sections. In the first section, I offer insight into the significance of the obesity problem giving an historical context and future implications as described in Chapter 1. I also describe the public health perspective and medical model referencing both and describing successes or failures of current interventions. In the second section, I present literature relevant to the research question and relating to variables such as the influence of the social and built environment, health care disparities, and interventions that could address behavior and public policy modification. In the third section, I present in tabular form prior studies addressing the obesity epidemic, discussing the influence of the built

and social environment. In the fourth section, I discuss studies with methodologies that support the methodological plan that I used.

Title Searches, Articles, and Research Review Materials

The search strategy for this research focused on the influence of the social and built environment on obesity and the determination of associated disparities that could block needed healthcare intervention. The databases that I used for this research were Medline / Pubmed, PsychINFO, Google Scholar and Walden University Library database sites. The key words that I used for searches included: obesity, built environment, social environment, healthcare disparities, qualitative methods, obesity and minority populations, public health interventions and obesity and behavior modifications.

Significance and Historical Context

Obesity is one of the most important public health concerns in the United States. Caprio et al., (2008) asserted that obesity has had deleterious associations for risks to cardiovascular disease, diabetes, and some cancers. Although obese individuals are especially at high risk for weight-related comorbidities, quality health care historically has been slow to meet a standard that addresses this disease that threatens the health and lives of a major proportion of Americans across every age, gender, racial and socioeconomic group (Puhl & Heuer, 2010).

Although obesity concerns are problems for Americans overall, populations of color and those that are economically disadvantaged are disproportionately affected (Kumanyika et al., 2007, Gaines, 2010). Obesity at a basic level is theoretically due to an energy imbalance due to over-eating and the lack of exercise. Gasevic et al., (2011)

asserted however that an environment that hindered physical activity and promoted excessive food intake must be considered in the rising obesity epidemic. Variables implicated in the built environment, described as modified characteristics of the physical environment, include barriers for access to fresh fruit and vegetables, lack of areas for physical activity, safety concerns and lack of aesthetic quality (Gasevic, et al., 2011).

An understanding of the specific behaviors that are also important in the etiology of obesity poses a major constraint to prevention. A better understanding of these behaviors is critical in order to plan and implement effective obesity initiatives (Gillison et al., 2015, Crawford & Ball, 2002, Teixeira, 2015). There are several variables unique to the obesity epidemic and questions delving with specific variables will be posed to the participants as presented in the attached appendices.

The Influence of Diet and Culture

Zimmerman (2012) described how questions of obesity concerns were used in a study by Julie Palmer, a senior epidemiologist at Boston University. In this study, the researcher queried the participants on how often they ate out and what types of food were usually chosen. In discussing food preparations at home the questions were: what was generally the most common menu item, what spices and oils were normally used and what was the preference of the family.

Food is both a developed cultural identity and a means of preserving the family and community unity (Caprio et al., 2008; Kirby et al., 2012). The consumption of traditional foods can however enhance the prevalence of obesity dependent of the cooking methods. Caprio et al., indicated that affordability, palatability, familiarity,

availability of foods, and perceived healthfulness of foods could persuade families to retain or discard traditional foods and move to more mainstream items. These items might not be as healthy but are rapidly becoming accepted in communities especially with the influence of food-related advertising.

Culture is a system of shared understandings that give meaning to a set of rules for normative behavior within that society (Kirby et al., 2012). Among the shared understandings are those that pertain to obesity, include its cause, cure and the extent to which a society or ethnic group views it as an illness (Caprio, et al., 2008; Kirby et al., 2012). Culture is generally a learned behavior and dependent on the society or social setting, not everyone possesses that same knowledge, attitude or practice. Culture therefore becomes a set of learned practices within a society (Fernandez & Pritchard, 2011, Caprio, et al., 2008).

Cultural practices contribute to obesity in several ways. The idea of a perceived body image in a cultural context will present in the acceptance of a larger or smaller body size preference. Given that women generally assume the primary responsibility for the care and feed of the family and especially the children, the beliefs held by the women are generally passed on to the children (Caprio, et al., 2008). These beliefs can range from body size acceptance, perception of eating habits and decisions on food.

Childbearing has proven to be a factor in weight gain for many females who often are overweight at the time of pregnancy or gain weight during this time (Zimmerman, 2012). Breast-feeding has been theorized to be a catalyst in a female's metabolism reset,

but African-American women lag behind in the percentage of their infants being breast-fed as compared to their racial counterparts (Zimmerman, 2012).

There is a large knowledge gap on the cultural determinants of obesity. Cultural attitudes, beliefs and mores in relation to food, physical activity and relative body size could be predisposing elements to unhealthy weight gain (Swinburn, 2008). Questions for discussion could entail how the females feel that male partners would view them if they were a smaller size or if a large size equates to dominance or power.

The Influence of Socioeconomics and Disparities:

Caprio et al., (2008) indicated a profound influence of socioeconomic factors on obesity. Neighborhood of residence can influence access to healthy foods and opportunities for physical activity. Level of income and social position can permeate every aspect of life and considering those on the lower spectrum of economics, lower costing energy dense foods may be preferable to the higher costing nutritious foods in order to maintain life and lifestyle (Kirby et al., 2012).

Living in high poverty areas has been associated with an increased prevalence of obesity, even more so than the influence of ethnicity. The link of obesity to economic hardship signifies that the built environment and living in a disadvantaged area is a major contributor to the obesity epidemic (Caprio et al., 2008).

Low SES and discrimination may result in increased stress that results in the elevation of plasma cortisol, which has been implicated in obesity incidences (Caprio et al., 2008). Exposures to environmental stressors, the degree to which the population can

deal with environment, SES, and discrimination are all implicated in the advancing of the obesity epidemic (Zimmerman, 2012; Caprio et al., 2008).

Populations living in disadvantaged neighborhoods with a scarcity of grocery stores for fresh fruits and vegetables and lacking or having poorly maintained parks or sidewalks are often obese (Zimmerman, 2012). Too often, the crime is probability is high and will detour ideas of activities such as walking or other exercises. Posed questions could concern the availability of fresh fruits and vegetables and the cost-efficiency of these items and the safety challenges associated with walking or physical activity areas.

Significance of Obesity and Health

The obesity epidemic continues to grow basically unchecked among minorities. About 30% of Americans are classified as obese and populations of color experience a more disproportionate prevalence (Gaines, 2010; Kumanyika, et al., 2007). Kumanyika (2005) argued that obesity posed a greater risk to minority populations especially African-American, and indicated that the obesity epidemic should be defined on the level of the associated health risks. Although implicated in conditions such as cardiovascular disease (CVD), diabetes and certain cancers, obesity may not be the key factor driving these conditions. Diseases of this type are of a multifactorial causation, as the association between an increased body mass index (BMI) and mortality from the associated diseases of obesity is weaker among African-Americans (Kumanyika, 2005). Kumanyika asserted that there continued to be an over-reliance on associations between obesity and mortality without considering the effects of obesity on disease and disability. Factors such as timing of diagnosis, access to quality treatment, comorbid conditions, and less well-

defined social and environments variables can reflect in mortality rates and cause differences in expected and increased BMI relationships and disease (Ball, 2010; Rossen & Schoendorf, 2012; Kumanyika, 2005).

Although the association of obesity and morbidity from associated chronic ailments has been established by clinical research, there remains a need to focus on the effect of the obesity epidemic on the economic, social, and political climate (Novak & Brownell, 2011; Kumanyika, 2005). Novak and Brownell concluded that the current view of obesity as a medical rather than a social or population concern sidesteps the need to address changes in the social, physical, and political environment and places the focus primarily on the individual. The authors suggested that in the treatment of obesity, a public health focus that would address populations should be employed. Within the public health focus, there are approaches directed toward improving the well-being of the population being served by addressing needed changes that could positively affect a majority of persons (Novak & Brownell, 2011; Rossen & Schoendorf, 2012). The epidemic of obesity will continue to worsen without changes to the current environment that pushes people toward calorie-dense foods and sedentary lifestyles. Without addressing the environment that fosters obesity, educational and behavioral teaching to the individual will not bring about the desired change (Novak & Brownell, 2011; Correll, Landrine, Hao, Zhao, Mellerson & Cooper, 2011).

The United States obesity epidemic has escalated especially among populations of color. Obesity intervention measures should shift from individual to population-based approaches addressing socio-cultural, political, economic and physical environmental

factors that are incorporated within the built environment (Yancey et al., 2004; Novak & Brownell, 2011). The built environment is defined an incorporation of urban design factors, land use and available transportation with a given region. It also describes the available options for the population within that environment (Booth, et al., 2005; Sallis et al., 2012). The built environment not only involves the physical makeup of the community but also encompasses the social elements and the relationship of the community with the physical and social elements of that environment (Sallis et al., 2012; Papas, Alberg, Ewing, Helzisouer, Gary & Klassen, 2007). These type factor relationships often influence obesity incidences. Physical activity and obesity rates have been linked to the attributes of neighborhoods, referring to its physical, social and economic attributes. An important attribute of a community obesity intervention includes neighborhood walkability. Walkability refers to whether a neighborhood has non-residential destinations such as shops or markets that are close to residences and have well-connected streets (Sallis et al., 2009). Highly walkable neighborhoods often offer pleasing ascetics and increased public safety. Sallis et al., determined however, that although walkable neighborhood have been associated with increased physical activity and decreased obesity rates, walkability does not address social issues. Health outcomes that are influenced by social and economic disparities remain an issue for lower socioeconomic communities. Disparities such as a lack or lessened access to competent health providers, neighborhood satisfaction, aesthetics, and a perceived safety from crime are not influenced by a neighborhood's walkability (Sallis et al., 2012).

Obesity has become a serious public health problem with negative social, economic, and health consequences. Obesity and sedentary lifestyle are risk factors for a variety of chronic conditions and are leading causes for years of life lost and premature mortality (Kirby et al., 2012). The estimated number of deaths attributed to obesity numbers greater than 200,000, making it second only to smoking in the United States (Kirby et al., 2012). Although community racial and ethnic composition are important correlates for obesity risks, more must be learned about community-level risk factors, especially how built environments and social norms operate within communities (Kirby et al., 2012). The built environment is thought to have an important influencing role on obesity by creating an environment that promotes increased energy consumption and reduced energy expenditure (Papas et al., 2007; Lovasi, Hutson, Guerra & Neckerman, 2009). An understanding of the effect of the built environment is necessary for successful interventions and policy changes (Kirby et al., 2012). Sallis et al., suggested that an important question was whether favorably built environments could not only increase physical activity but reduce health disparities. Lower income residents may not experience all the benefits of living in a walkable neighborhood unless other needs are met (Sallis et al., 2009). Low SES residents have generally a less favorable quality of life, social adhesion and neighborhood satisfaction rating and living in a walkable neighborhood does not alleviate these concerns. Efforts are also needed to improve the social and physical environments, enhance health and social services and thereby empower these vulnerable populations (Sallis et al., 2009; Kirby et al., 2012).

Literature Relevant to the Purposed Research

A research question of this study examines how the built environment (social and physical) can effect and contribute to the obesity epidemic and inquires of the changes needed in future community designs that can effectively push back against environmental forces that are sustaining it. Lovasi, et al., (2009) stated in a related study, that obesity rates were higher among persons of low SES, and offered examples among the black and Hispanic populations. A differential exposure to an obesogenic environment was offered as a plausible explanation; emphasizing a neighborhood disadvantage limiting economic opportunity and promoting obesity in a population already deemed disadvantaged due to social and economic disparities (Lovasi et al., 2009).

Novak and Brownell (2011) asserted that obesity is likely to occur in the absence of a healthy environment. The presence of healthier food choices such as fresh fruits and vegetables are generally less available in lower income neighborhoods and the goods that are present tend to be more expensive. This argument supports the assumption that an obesogenic environment is not only created but sustained by the built environment.

An environment that hinders physical activity and promotes excessive food intake should be implicated as a major contributor to the rise of obesity (Gasevic et al., 2011). This hypothesis refers again to the research question presented initially in this section referring to the influence of the built environment as being a critical determinate in obesity incidences and prevalence.

Sallis et al., (2009), Lovasi et al., (2009) and Gasevic et al., (2011) agreed concerning the link of the built environment with obesity, but Sallis et al (2009) queried

whether favorably built environments could reduce health disparities. Living in walkable neighborhoods while associated with increased physical activity does not address other issues such as social and psychological relationships that presented as variables in obesity. The argument that low SES could have a greater effect on health outcomes such as obesity is an issue relevant for discussion. Lower income populations have a less favorable quality of life, decreased social adhesion and an overall lack of neighborhood satisfaction (Sallis et al., 2009). Highly walkable neighborhoods showed little evidence of alleviating this disadvantage, so emphasis placed on improving physical environments should be coupled with enhancing health and social services to empower vulnerable populations (Sallis et al., 2009). Physical activity can be increased by changes in the built environment with the creation of physical changes of walking paths to destinations or commercial districts (Gustat, Rice, Parker, Becker, & Farley, 2012), but the disparities brought about by social and economic challenges require addressing policy changes and social empowerment of the involved populations (Swinburn, 2008).

The prevalence of obesity is higher within the population of black women than in most other subgroups (Charleswell, 2014; Ogden, 2009; Sallis et al., 2009; Caprio et al., 2008). To create an understanding of this disparity could help in the design and targeting of appropriate interventions. Research suggests that low levels of parental education are the potential greatest reasoning behind this disparity and that family education and counsel may be necessary to address this concern (Ogden, 2009).

Corral, Landrine, Hao, Zhao, Mellerson and Cooper (2011) indicated that residential segregation has had a role in the obesity epidemic. Whether there is a concern

of access to or consumption of fresh fruits and vegetables or reasonable access to physical exercise, the disparity that exists within residential segregation negatively affects populations especially African-Americans. Race and ethnicity have had an historic influence on variables such as education and occupational status. The socioeconomics that are aligned with residential segregation could offer a further explanation for racial and ethnic variations in obesity and health, limiting economic opportunity and promoting obesity in an already disadvantaged population (Corral et al., 2011).

Developing an understanding of the effect of the built community on obesity could provide information necessary to develop successful community-based intervention efforts (Papas, Alberg, Ewing, Helisover, Gary & Klassen, 2007; Charleswell, 2014). This type intervention would support the proposal of public health as it promotes the institution of interventions that would affect populations rather than individuals. The built environment influences health not only by direct inputs of chemical and physical agents, but also with influencing factors of housing, land use, transportation and economics (Papas et al., 2007).

As the interaction of an individual with the environment influencing his health can differ dependent on family structure (i.e., number of children, elderly members and etcetera); concepts of intervention may need to differ accordingly (Pappas et al., 2007, James et al., 2006; Sallis et al., 2012). In intervention proposals, considerations must be made to address the economic health of the neighborhood as poorer communities are thought to be more affected by their built environment due to constraints of transportation

and lessened opportunities (Papas et al., 2007; Kirby et al., 2012). Examining the economic, racial and ethnic differences within the built community could aid in the development of more definitive cultural specific community-level interventions (Papas et al., 2007; Hill et al., 2003; McKinnon 2010).

Even though the obesity epidemic and its morbid correlates in the United States are not in question, the solution for successful intervention is less clear (McKinnon, 2010; Teixeira et al., 2015). Individual-level interventions have shown results short-term, but this is rarely maintained. McKinnon argued that statistics showing a steady increase in obesity incidences have led to an increased call for intervention by policy-makers. The identification of an appropriate balance between individual liberties and the well-being of a community remains a perpetual tension of the present day democracy (McKinnon, 2010; Charleswell, 2014). The balance between individual and community rights must not only be championed by the forums of public health, but should be included in other policy-influencing fields. Taking the message from prior successful policy enactments such as seat belt laws, vaccinations, water fluoridation and tobacco taxes, policies concerning obesity and environments perpetuating the epidemic need now be addressed (McKinnon, 2010).

McKinnon (2010) asserted that effective policies could for example:

1. Alter the environments that affect personal diet and activity decisions,
2. Create short-term incentives that could align with long-term health goals
3. Improve the availability of relevant dietary information on foods to facilitate informed decision-making.

Theoretical Foundation

Several theoretical propositions and hypotheses are appropriate for the study of obesity. Baranowski, Cullen, Nicklas, Thompson and Baranowski (2003) indicated that behavioral change, which is an essence of successful interventions in obesity research, often comes as a result of mediating variables from theories or models used to understand behavior. These theories or models define the motivational mechanisms for change, the resources needed for the change, the processes by which change occurs and the procedures to promote change (Baranowski, et al., 2003, Gillison et al., 2015).

Social science theories provide the basis for an understanding behind the behaviors that sustain obesity within populations. Ecological factors (i.e., the physical or social environment) are important determinants in cognitive decisions which are suggested to be important variables in successful obesity interventions (Baranowski, et al., 2003). It has been documented that environments directly affect health and efforts for change and interventions should give this area primary consideration. Multilevel (e.g., regions and neighborhoods), multi-structural (e.g. physical environment and socioeconomic status), multi-factorial (e.g., diet and stress) and multi-institutional (e.g., family and government) present challenges and can determine how environment influences health and behavior (Baranowski, et al., 2003).

Baranowski et al., (2003) suggested that the models or theories to be selected should address the following questions:

1. Why would a person want to change his behavior?

2. What are the personal resources needed for personal change?

3. What are the processes by which behavioral change is likely to occur?

4. What procedures encourage change in these models and in turn, behavior?

The following models are discussed by Baranowski et al., according to their influence in obesity research and history and were used as a reference for this study. The major framework for this study will be a dual concept using the social cognitive theory (SCT) by Bandura (1977) and the transtheoretical (stages of change) model (TTM) by Prochaska (1992). The SCT suggests how individuals can acquire and maintain certain behaviors, while the TTM suggests movement along the processes of change along a continuum of motivational readiness for behavior change (Geo-Balch et al., 2011).

As culture provides a set of rules for normative and pragmatic behavior, the frameworks as described by the SCT and the TTM offer a diagram for changes toward healthier behavior patterns and provide stages that the participants can follow and maintain. Both theories also provide for the development of self-efficacy, necessary to complete the change stages (Caprio, et al., 2008).

Social Cognitive Theory (SCT)

The SCT is the one model most commonly used in the design of nutrition education interventions. As such, the SCT offers a framework for the understanding of health-related behaviors and methods of change (Baranowski, et al., 2003). Developed from the social learning theory, the SCT inherent primary concepts include skills, (the ability to perform a behavior when desired), self-efficacy, (the confidence to perform the behavior), and outcome expectances. Outcome expectances is the chief motivational variable, as a targeted population expresses a desire to achieve positive outcomes and

avoid negative ones (Jeffrey, 2004; Baranowski, et al., 2003; Teixeira, et al., 2014). The SCT offers procedures that can be developed to target behaviors among those at risk for obesity through the development of the stated primary concepts.

The SCT model can be seen as an intervention method within the social environment. The social environment includes family, friends, co-workers and health professionals. Each can influence behavioral decisions and thereby affect health. This point emphasizes a central tenet of the SCT, where an exploration of the reciprocal interactions of people and their environment are highlighted (Rimer & Glanz, 2005). The SCT describes an ongoing process where the psychosocial determinants of health, behavior and environmental factors exert influence upon each other (Rimer & Glanz, 2005). As a person adopts new behaviors, changes are then caused in both the person and the environment.

Transtheoretical Model (TTM)

The focus of the TTM is on promoting change in behavior through stages. The concept of the stages of change developed by Prochaska and DiClemente suggest that behavior change happens in progressive stages (Rimer & Glanz, 2005). The most agreed stages of change are: (a) pre-contemplation, (not thinking about the change), (b) contemplation, (considering but making no changes), (c) planning, (anticipating and considering making efforts for change), (d) action, (engaging in change efforts) and (e) maintenance, (efforts to retain changes made) (Baranowski et al., 2003).

Rimer and Glanz indicated that the basic premise of behavior was a process not an event, so as a person attempted to change a behavior, there were stages to the change.

The TTM model stresses that stages of change tend to be circular, not linear. This means that people do not necessarily progress from one stage to the other, but may enter at any point, relapse to an earlier stage or cycle repeatedly (Rimer & Glanz, 2005).

The TTM has become one of the most popular and enduring theories in the field of health promotion and education (Spencer, Wharton, Moyle & Adams, 2007). An educational model that incorporates the essence of the SCT with a focus on the social environment, but primarily institutes the TTM model will be design in this study. This focus to promote beneficial health behaviors among a targeted population will attempt to address the following issues: (a) making the health issue of obesity relevant, (b) educating the subjects on the benefits of a behavior change that could intervene with the processes of an obesogenic environment and (c) to increase the patient's expectations for self-efficacy. An educational model presented to these subjects on the value of weight loss and control will provide an impetus for change and intervention. Spencer et al., indicated that individuals are most likely to experience in change when they engage in strategies that are appropriate to their stage of readiness to make the change, which is a defining modality to the TTM model of stages of change.

The following references are presented as literature reviews or studies that have correlated the association of the built and or social environment on risks for obesity. The discussion entails the effects of the physical and social environments as well as the disparities that are associated with the economic and accessibility barriers that exist.

Table 1

Effect of the Built and Social Environment on Obesity.

Reference	Objective	Study Population	Methods/Data Analysis	Results/Discussion	Conclusions	Limitations
Gustat et al., (2012)	To examine how changes in a built environment can effect residents' physical activity	Three primary low-income African-American neighborhoods in New Orleans.	Self-reported activity delivered dichotomously within three neighborhoods compared at baselines and follow-up. A 6-block walking path was developed that lead to an installed playground in an intervention neighborhood for measurement of physical activity. A logistic regression analysis was used to explore the effect of the intervention.	Survey respondents from the three comparative neighborhoods were similar at baseline with walking being the common physical activity. Results suggested that after installing a walking path, observed activity was increased indicating a positive effect when improvements to the built environment occurred.	Trails and outdoor recreational spaces in the physical environment promotes physical activity. Community-based interventions, such as implementing walking trails were proven to increase physical activity among residents of an attached neighborhood. A key component was that the trail was near homes and linked to destinations.	Confounders included self-reports and a lack of ability to randomize when the variable is the neighborhood rather than individuals.
Hill et al., (2003)	To determine how changes in behavior mediated by addressing the social and physical environment could be key to arresting the obesity epidemic.	20 to 40 y/o subjects in a cross-sectional NHANES data set	Data made available from NHANES and CARDIA studies was used to estimate the distribution of weight gain within a population.	Health is one factor contributing to decisions people make concerning food and physical activity. Because the consequences are long term, there is often less of an impact than with factors such as convenience and fast delivery that give immediate impact (i.e. fast food and motorized travel).	The fundamental paths for change in the environment are two-fold: a) to mount a social change that will provide the necessary political and social incentives to build an environment that is supportive of healthy life-style choices and b) to understand that social change is not immediate, so strategies must be realized to help individuals manage in the current environment.	In the social environment, obesity must be identified as a crisis. The average individuals rank obesity lower than most other health concerns and see obesity as a personal failure of lifestyle choices. This stigma will continue to be a barrier if unaddressed by successful interventions.

Reference	Objective	Study Population	Methods/Data Analysis	Results/Discussion	Conclusions	Limitations
Booth et al., (2005)	Research was reviewed to determine the influence of the built environment on obesity. Study focus was to investigate the relationship between characteristics of the built community and obesity risks.	Review of articles detailing suggested links between areas of residence or built environment and obesity by the use of direct (observed) and indirect (self-reported) methods.	Census data and boundaries were used to define neighborhoods and help to establish environments that could be linked to health behaviors outside of human decisions and control. The investigation sought to correlate the relationship between obesity and the environment.	Reviewed studies indicate a link between neighborhood residence and obesity risks. Lower socioeconomic (SES) neighborhoods were shown to provide less access to healthy affordable options for physical activity (PA) and food sources, but more options for fast food.	The physical environment can influence the health of individuals' beyond that of personal risks factors. The presence of increased fast food options and less access for PA limits both healthy choices for nutrition and physical activity.	The literature reviews presented the impact of community design on PA and food options that could lead to obesity. However the use of indirect methods (self-reporting) could confound the studies. More direct methods are needed for a true assessment and for planning efforts to identify effective change design for communities.
Kirby et al., (2012)	The U.S. obesity epidemic has disproportionately affected certain racial and ethnic minorities. This study explores the association between community racial and ethnic compositions and obesity risks.	The study population included: Hispanic, non-Hispanic Black, non-Hispanic White and non-Hispanic Asian. Other categories were excluded as the numbers were small. The final sample consisted of 123,192 participants of 18 years and older.	The two main outcome variables were: BMI (determined by weight and height) and obesity (>30 BMI). Logistic regression models provided descriptive statistics using individual and community characteristics as variables.	The study indicates that non-Hispanic Blacks are more likely to be obese than the other racial ethnicities, and points to their neighborhoods having fewer physical fitness access areas and more fast food locations. The study suggests the need for further study to correlate the association between social norms and community environment.	Community ethnic composition is an important variable in an obesity study, but there must also be a focus on the social differences brought about by the individual races. Findings suggest that in addition to the built environment characteristics, racial composition and mores are an important factors to be assessed.	Although research questions were based on the idea that social norms could give rise to community ethnic composition, the study lacks sufficient direct measurement. Though a tempting hypothesis, it cannot not be verified that cultural attributes promote any particular ethnicity toward obesity.
James et al., (2006)	To study obesity in African-Anerican females in relation to their socioeconomic position (SEP) in childhood and adulthood. The study hypothesis suggests that low SEP in childhood leads to low SEP in adulthood and offers a link to increased risk factors for obesity.	Follow-up participants from the Pitt County Study; a community-based prospective investigation for behavioral risk factors in African-Americans 25-50 y/o. Emphasis was placed on females with the final subject count of 679.	Placed on the basis on parental occupation, women were placed in four categories of combinations of low to high childhood and adulthood socioeconomic position (SEP). (The adulthood category was determined by present education, occupation, present employment and home ownership.)	This study suggests that individuals that experienced SEP deprivation in childhood were more likely to engage in detrimental health-related behaviors such as poor nutrition and decreased physical activity levels. This suggests a potential pathway correlating SEP deprivation with increased odds of obesity in adulthood.	The development of obesity is multi-faceted. An interaction between an individual's genetic make-up and health behaviors (the latter being influenced by individual and neighborhood SEP), is a strong predictor of adulthood obesity especially when there is evidence of childhood SEP.	The study researchers made a decision to require participants to possess three of the four SEP criteria ultimately reducing statistical power and limiting the number of subjects considered advantaged. Findings were also subject to recall and loss to follow-up bias.
Gordon-Larson et al., (2006)	The study assessed how environmental factors of geographic and social distribution of physcial activity (PA) facilities impact obesity and how disparities in access could underlie inactivity and patterns of weight control.	20,000 adolscents enrolled in Add Health; a school-based study of grades 7-12 chosen by systematic sampling and stratification.	Logistic analyses were used to test the relationship of PA-related with block group socioeconomic status (SES) at the community level to the association of facilities and availability at the individual level, contolling for population density.	This study presents evidence to support the theory that PA-related resources are distributed inequitably with high minority neighborhoods at a strong disadvantage. This distribution suggest a significant association with subsequent disparities in health-related behaviors and individual level obesity.	Inequitable distribution of PA-related resources within minority and low-educated neighborhoods is associated with decreased activity and weight gain. Inequality in availability of facilities may further contribute to ethnic and SES disparities, inactivity and ultimately weight gain.	Addressing the availability of PA facilities is one dimensional; considerations must also made to affordability and access. Since the obesity epidemic is multi-factorial, considerations must be made to other variables such as availability of healthy food sources, health education and safe neighborhood design.

The Effect of the Physical Environment

The articles in Table 1 expressed the differing effects of the built environment on the obesity epidemic. Articles displayed discussed the varied aspects of the built environment: the influence of the physical environment, the influence of the social environment and the influence of the disparities created by the environment. The built environment involves physical design factors, land use and transportation options within the region as well as activity options for the population within that environment (Booth, et al., 2005). The environment becomes a logical source of study as obesity can result from a complex interaction between it, diet and physical activity. The physical environment can promote or inhibit physical activity which also suggests that changes to the built environment might increase physical activity in low-income minority areas (Gustat et al., 2012, Papas et al., 2007). A concern in lower SES neighborhoods is that often less provisions for access to safe options for physical activity along with decreased healthy options for food choices are available. This continues to support the development of an obesogenic environment (Booth et al., 2005; Kirby et al., 2012; Gordon-Larson et al., 2006).

A critical gap can be filled by an examination of the role that the built environment plays in defining inequalities for physical activity (PA) causing increases in obesity incidences within communities composed of low SES and high minority populations (Gordon-Larson et al., 2006; Gustat et al., 2012). Community-based interventions such as the implementation of walking paths or trails linking to destinations can be a strategy to increase the PA of residents (Gordon-Larson et al., 2006). If

connections are to markets and food providers, increases in PA along with access to better nutritional choices may be available. The inaccessibility of sidewalks and or lack of easy connectivity to better nutrition sources are related to obesity independent of individual characteristics. A gap can be identified if research is employed to present the association between ethnic disparities at the individual level and disparities associated with obesity involving community characteristics and the built environment (Kirby et al., 2012; Gustat et al., 2012).

The Social Effect of the Built Environment

Hill, Wyatt, Reed and Peters (2003) asserted that health is merely one factor contributing to decisions concerning food and physical activity. Environmental factors that seemingly create variables leading to obesity may only be symptoms of deeper social forces that have been built into lifestyles. A desire to lessen physical work and the quest for increased production along with daily time constraints has pushed the population toward the quickest available and often energy-dense foods (Hill et al., 2003; Sallis et al., 2012).

The obesity epidemic has disproportionately affected certain racial and minority groups, suggesting an association between community ethnic composition and obesity risks (Kirby et al., 2012). This association adds another variable to the risks provided by the built environment. The involvement of social mores and customs that could contribute to the resident's weight status makes it tempting to posit that cultural attributes are a very present risk in obesity prevalence within minorities (Kirby et al., 2012). Although little is concrete about the how the ethnic and racial composition of

communities would have a direct association on individual-level obesity, it is suggested that there is an ethnic or racial association within communities. Community composition has been postulated to be an important correlate of obesity risks, but there exist vast differences in this relationship according to the ethnic or racial population involved (Kirby et al., 2012). Cultural norms can have an important effect on residents' weight status. Although the built environment brings about obvious barriers to physical activity and nutrition choices, simply changing the built environment may not alleviate all of the challenges, and may not address the social forces working within it (Hill et al., 2003; Kirby et al., 2012; Sallis et al. 2012).

Modern day changes in the family structure with increased numbers of women entering the workforce and a similar increase in the number of single parent families have placed an increased value in the need for time and convenience (Charleswell, 2014; Hill et al., 2003). There is no longer sufficient time for traditional food preparation causing an increased demand for pre-packaged and fast food. Hill et al., suggested that present interventions attempting to target the health-related fraction of an individual's behavior concerning choices of nutrition and PA only approached a small fraction of the total equation concerning obesity. Time and convenience are factors contributing to the daily decisions for food and PA and thus increasing the popularity of highly dense prepackaged foods. Because of the silence of the long term chronic consequences of associated morbidities of obesity, there is less of an effect with interventions attempting to instruct sudden change behavior (Hill et al., 2003; CDC, 2015).

Story (2011) defined behavioral change as a fundamental concept of social change, which through appropriate interventions can empower a population to change a behavior. The development of obesity has ties to social behaviors that are patterned by an individual's access to socioeconomic resources over a life span (James et al., 2006; Ball, 2010; Fredriksen-Goldsen et al., 2013). Public health research has indicated an interconnection between low socioeconomic position (SEP) in childhood and low SEP in adulthood, creating an association leading to adulthood obesity (James et al., 2006). This hypothesis is especially important and prevalent in the case of the African-American female population. This population, of which this study will direct its focus, is theorized to be most at risk for economic hardship, low SEP and subsequent obesity (James et al., 2006; Martin et al., 2008; Robinson, Gordon-Larson, Kaufman, Suchindran & Stevens, 2009).

A basic understanding of the contribution of environmental factors to obesity is useful, but a more amicable solution would be to identify feasible ways to cope with and change the current environment (Hill et al., 2003; Sallis et al., 2012). Changes can occur along two fundamental paths: a) researchers must mount a social change campaign that could provide the needed political and economic incentives that would be an environment more supportive of healthy lifestyle choices and b) develop short term strategies to help individuals manage better within the current environment (Hill et al., 2003).

Peters, (2006) asserted that providers were continuing to lose ground in meeting the national goals of reversing obesity. The simple strategy of providing people with information about behavioral goals is not sufficient for them to adopt and sustain new

behaviors (Peters, 2006; Spencer, Wharton, Moyle & Adams, 2007). In order to make sufficient progress toward changing the current obesogenic environment requires a stronger understanding of the major economic and social systems that have shaped this environment and how change can be brought about realistically (Charleswell, 2014; Peters, 2006).

The Effect of Disparities

Gordon-Larsen, Nelson, Page and Popkin (2006) and Fredriksen-Goldsen et al. (2013) shifted the focus from a discussion of the influence of the built environment to the disparities subsequently created. Geographic and social distributions of physical activity facilities are inequitable when high minority neighborhoods are compared to their majority counterparts. This can cause increased risks for health-related disparities. Availability, affordability, quality and accessibility, all of which are barriers for low-income of SES populations, can and often do impact obesity and behaviors leading to prevalence risks (Gordon-Larson et al., 2006).

James et al., (2006) indicated the focus on disparities should be further narrowed to the population of the African-American female, who have the highest prevalence of obesity of any United States demographic group. This presents a need to examine the degree to which obesity risks are perpetuated in childhood and sustained in adulthood in this group (Kumanyika, 2007; James et al., 2006; Rossen & Schoendorf, 2012). A further insight into cultural and socioeconomic positions and the influences concerning this target group follow under: section 4: research focus; African-American females.

Obesity has been defined as a modifiable risk factor that has been associated with excess morbidity and mortality in minority populations indicating a health disparity that reflects along socioeconomic and political lines (Kumanyika, 2005; Corral et al., 2011). Kumanyika suggested that from a minority health perspective, obesity when focused upon as a disparity, gave an indication of the hard evidence of decades of ill treatment. This research will attempt to fill the gap in professional understanding of the structural components of obesity and its subsequent morbidities.

As obesity control efforts have shifted from individual to population-based approaches addressing both socio-cultural and economic factors, emphasis and direction should remain directed toward minorities. Novak and Brownwell (2011) assert that obesity rates are highest among minorities and lower SES groups due to financial barriers, cultural influences, and the lack of access to healthy foods. Behaviors determining weight status are embedded in the core social, cultural processes, and environments of daily life within this population (Kumanyika et al. 2007).

Obesity in the United States is best understood as a result of a larger cultural theme; the creation of an environment of low-cost, low nutrition foods and lessened physical activity (Braveman, 2009, CDC, 2015). Unfortunately, low nutrition, highly palatable food sources are very available to populations that are already targets for higher obesity risk. Obesity interventions should endeavor also to identify and understand the disparities in health present among these less advantaged social groups that can lead to obesity risks. Focusing on disparities can guide research in examining the multiple dimensions of disadvantages and or discrimination (Charleswell, 2014; Braveman, 2009;

Fredriksen-Goldsen, 2013). This perspective can lead research to consider conditions in social and physical environments at the family and community level and avoid barriers to successful intervention. A research framework that considers social and environmental obesity factors could prove highly relevant for exposing experiences and behaviors underlying obesity risks and the associated sequellae (Braveman, 2009; CDC, 2015).

Research focus: African-American females:

The high prevalence of obesity among African-American women influences the need for addressing obesity in the black community. Kumanyika et al., asserted that since 20% of low SES African-American women had weights in the range that was considered unhealthy, interventions should address this population in order to curb behaviors that have fueled the obesity epidemic. Many black females serve as head of household, have influential roles in family as well as religious and civic organizations and control most of the food shopping and preparation (Gaines, 2010; Kumanyika et al., 2007). The use of food as a mechanism to cope with stresses related to poverty, violence and racial discrimination is relatively more adaptive with African-American females than palliative uses of alcohol or drugs. From a cultural standpoint, having a larger body size could convey power or strength as a means of protection from mistreatment or violence (Kumanyika et al., 2007; Kirby, et al., 2012). Cultural perceptions of weight and size of this population as compared to women of other races could offer an explanation for the disproportionate incidences of obesity in current studies (Ogden, 2009).

Swinburn (2008) asserted that there was a true knowledge gap in the cultural determinants of obesity, which becomes more evident with African-American women

when they are a single head of household. Attitudes, beliefs and perceptions in relation to food, physical activity and body size can be coping processes leading to obesity risks. The high prevalence and severity of obesity among African-American women indicate the need for a health promotion intervention that will directly address obesity from their point of view. Presently, knowledge and education approaches for weight loss are derived primarily from interventions directed at white populations, which may not allow for the influence of socio-cultural and environmental factors (Yancey et al., 2004; Fernandez & Pritchard, 2011). Interventions directed African-American women need to consider influences of culture, diet palatability and food preferences (Martin, Dutton, Rhode, Horswell, Ryan & Brantley, 2006; Kirby et al., 2012). Other barriers concerning transportation, child care and financial reimbursements should also be considered to enhance African-American participation in intervention studies.

In the United States, Black females are at a much greater risk for obesity than their racial counterparts and Black men (Robinson et al., 2009; Gaines, 2010). Little is known about the factors underlying this disparity and a focus of this research was to attempt to qualitatively provide some insight into this disparity.

A number of factors determine responses to an obesogenic environment including exposure, available resources and the biological predisposition to an energy imbalance (Ard, 2007; Robinson et al., 2009). Even with the consideration of these variances, patterns of obesity have a higher prevalence in African-American women. Ard suggested that certain barriers unique to any population including lack of insurance coverage or reduced access to weight loss interventions could be to blame, but the socio-cultural

context for these barriers could be different for African-American females. Cultural or social perceptions of how they should deal with their weight are based to a significant degree on racial identity (Ard, 2007, Robinson et al., 2009; Charleswell, 2014). African-American females suggested during inquiry that their cultural environment was more permissive toward a larger body frame and often promoted weight gain, not placing an extreme value on thinness (Ard, 2007; Fernandez & Pritchard, 2012). Cultural norms for American-American women have a different ideal than the standard small frame for beauty and that this ideal includes a larger body size (Lynch, Chang, Ford & Ibraham, 2006; Kirby et al., 2012). Lynch et al., indicated that interviewed participants in their study noted that relatives were often of a larger size and that mirroring that size brought about a sense of belonging. Support for losing or willingness to lose weight often faced opposing influence of family and those of their inner circle as being competitive or even detrimental ((Ard, 2007; Lynch et al., 2007; Fernandez & Pritchard, 2012).

Current therapies do not routinely consider the influence of cultural opposition to behavior changes from members of the support system, and these leaves the African-American female without adequate support when attempting to alter their lifestyle (Ard, 2007). Baranowski (2003) indicated that the SCT suggested a framework for understanding the underlying influence of the social environment in this instance. The SCT purposes that behavior is a function of the environment and the reciprocal interaction of the person involved. This includes the concept of modeling: a behavior learned by watching someone do it successfully and thereby receiving reinforcement for it (Baranowski, 2003).

Cultural kinships such as shopping together, exchanging of clothing and other types of personal bonding activities can become altered when behaviors toward weight loss are opposed. Unsubstantiated concerns of the presence of disease or drug use can also be perceived in this culture when weight loss becomes evident and African-American participants have found these type discussions discouraging to the point of offensive, often negating the potential benefit of weight loss (Lynch et al., 2006; Garip & Yardley, 2011).

Lynch at al., (2006) reported from their study that the most common barriers described by African-American females to weight loss were: lack of time, lack of access to resources, issues of self-control, and social influences. The basis of present interventions does not provide adequate support for a population so influenced by cultural attitudes and it is a gap that this research will attempt to address. The use of open-ended questions toward individuals or a focal group may elicit responses that could assist in the creation of an appropriate intervention that could address and support this population's requirements for behavioral change. African-American females face a variety of barriers not common to their racial counterparts, and conventional methods may not influence or affect their medical decision-making (Arp, 2007; Gaines, 2010; Charleswell, 2014). It is imperative that health providers seeking to stem the epidemic of obesity recognize these behavior-related attributes and work toward the development of individualized culturally appropriate therapies (Lynch et al., 2006; Arp, 2007; CDC, 2015).

Comparative Methodologies

The potential contribution of the perspectives of people that have received the message of the associated morbidities of being overweight has received less attention than quantitative studies identifying weight management determinants (Garip & Yardley, 2011). The effectiveness of weight management interventions may be improved by a better cognizant understanding of how and why they are or are not successful. Although quantitative studies can provide numerical information as to why individuals adopt and or cease to engage in behaviors associated with weight management, qualitative studies investigate the views and experiences of the participants in these programs (Garip & Yardley, 2011). Garip and Yardley asserted that a way to improve weight management programs could be to incorporate the perspectives of targeted participants regarding a program's acceptability and feasibility, which is a perceived gap in present program conceptions.

Qualitative studies are increasingly being recognized as an important source of evidence for public health. The usefulness of qualitative studies in ethnography and meta-ethnography as a descriptive view of individual cultures has been demonstrated, but existing published synthesis of qualitative research on obese individuals' viewpoints on obesity are lacking (Garip & Yardley, 2011; Visram, Crosland, & Cording, 2009). The aim of this section is to identify and provide literature that outlines a pattern or demonstrates an approach that is similar to the research presented in this study. Table 2 presents comparative research methodologies similar to my project, their findings, and a detailed descriptive narrative of each study.

Table 2:

Comparative Methodologies to the Purposed Research Study.

Author	Aims	Design	Findings	Participants	Comparative Modality
Davis et al., (2005)	Examined obese women's experiences with weight loss methods.	Focus groups (Grounded theory)	Weight management interventions should account for features of African-American subculture, affordability concerns and spiritual principles.	Volunteer obese African-American and White females (n = 27)	To address emotional psychological and spiritual concerns and cost effective strategies in weight management interventions.
Visram et al., (2009)	Examined views of patients in a primary care-based intervention.	Semi-structured interviews	Participants expressed beliefs concering weight gain, triggers for seeking help with management and factors that could contribute to successful interventions	Volunteer obese and overweight patients (n=20) completing a weight loss program.	Presents qualitative evidence to inform the development of effective and acceptable strategies for obesity management in community settings.
Barberia et al., (2008)	Examined obese female's beliefs and attitudes related to eating behaviors.	In-depth interviews (Grounded theory)	Identified the beliefs and attitudes of obese Spanish women concerning weight loss treatment.	Overweight and obese females (n=17)	Interviews of participants to report beliefs and attitudes offering explanations of eating behaviors and developing behavior change interventions.
Miles and Panton (2006)	Examined how the quality of environments affects physical activity (P.A.)	In-depth interviews (Content analysis)	The importance of including community level interventions addressing safety concerns among low SES groups.	Overweight and obese females (n=25)	Interviews to indicate the perceptions of women's physical, social environment and social support concerning P.A. and obesity.
Fogel and McPherson (2009)	Examined experiences of weight loss efforts of lesbians in a weight loss program.	Focus groups (Grounded theory and phenomenology)	Participants expressed the concern of histories of fear, shame and non-acceptance.	Self-identified lesbians (n=14)	Presents the need for cultural connectivity in interventions.

The research studies posted in Table 2 examined the experiences of various minority female populations and references their design, aims and comparative methods to my purposed study of obesity.

Visram, Crosland and Cording (2009) explored the views of patients recently completing a primary care-based weight management intervention. Using semi-structured interviews, the researchers investigated the perceptions and beliefs of patients about factors influencing weight gain and explored triggers that would cause them to seek help in achieving weight loss. The purpose was to present qualitative evidence that would inform the development of effective strategies for the prevention, treatment and management of obesity in primary care and community settings (Visram, et al., 2009). This study used an exploratory qualitative design which allowed the patients to describe their experiences and raise issues that were important that could be preparatory for future intervention studies.

Davis, Clark, Carrese, Gary and Cooper (2005) used information garnered from focus groups of obese females stratified by race and SES. A major theme of this focus was the influence of behavioral and psychological factors on weight gain. Factors that included negative emotions associated with the stigma of obesity were suggested to influence participation in obesity interventions. Other barriers such as the challenges created by racial subcultures, management affordability, influence of family and social connections, and the lack of a spiritual approach in remediation were stated as reasons for non-participation. In the case of African-American females, spirituality was of significant

importance and programs targeting this population were suggested to incorporate spiritual themes and methods (Davis et al., 2005).

Fogel, Young and McPherson (2009) described the experiences of group weight loss efforts among lesbians, another sector of minority females. In a focus group dynamic, participants relayed how fear, shame and stigma concerns of their obesity and sexual orientation created barriers to weight loss. This research focus reiterates the need for a design with cultural connectivity and respect for minorities as stated in the study of Davis et al., (2005), but added also the need for acceptance of lifestyles without stigma (Fogel, Young & McPherson, 2009).

Barberia, Altree and Todd (2008) used their research study to identify the beliefs and attitudes of a sample population of obese Spanish females involved in a weight loss treatment program. The study was based on the theory of planned behavior (TPB), which suggests that an identification of the participants' beliefs is an essential step in the design of behavior-change intentions and that effective behavior-change interventions are required for changes in eating behaviors for obesity (Barberia et al., 2008). Using a qualitative approach, participants were queried on their beliefs of the benefits of weight loss and related emotions. As the beliefs were more positive, so were the attitudes toward weight-loss campaigns. Beliefs such as the positive attributes of social support, personal will-power and the long term benefits of weight loss were stated as being important to the attitudes of the participants and could decrease drop-out rates (Barberia et al., 2008).

Miles and Patton (2006) presented a study that explored the factors of the built environment and how they influenced physical activity. The researchers used a mixed

method of quantitative and qualitative measures to collect the statistical data. The quantitative measure involved participant's use of a pedometer to accurately measure an increase of the number of daily steps as was a stated goal of the intervention. The qualitative measure involved the use of open-ended questions asking participants to reflect on their experiences with the intervention design and what barriers exists that could detour their continuance with the study (Miles & Panton, 2006).

Summary

In Chapter 2, I presented analogous studies that outlined and discussed the association of the built and social environment to the risk of obesity. Through the use of focus groups and interviews, researchers through qualitative determinations have suggested how the influence of the physical and social environment continues to sustain the epidemic of obesity. Even though the size of the focus groups and participants in these studies caused limited generalizability, the perceptions of the influence of the cultural and social environment were a common theme. In this chapter it has emphasized that querying African-American females and others of low SES could bridge a gap in understanding by identifying opportunities for tailoring interventions for these high incidence populations. In Chapter 3, I present the methods with a description of the qualitative study design, the target population, and a discussion of how information will be collected and amassed.

Chapter 3: Methodology

Introduction

The purpose of this qualitative approach was to focus on the perceptions of obesity from the standpoint of African-American females. A narrative inquiry is a strategy in which the researcher asks the participants to provide stories or a discussion about concerns in their lives (Creswell, 2008; Jansen, 2010). This qualitative method includes interviews, discussions and participant observation as information sources and presents it from the perspective of the research participant (Jansen, 2010; Lester, 1999). This method can become a source for understanding subjective experiences and gaining insight into a population's motivations and actions that moves beyond assumptions and stated theories.

Qualitative data analysis is a range of processes by which movement is made from collected data into some form of explanation or interpretation of an investigated situation (Lewins, Taylor & Gibbs, 2005, Garip & Yardley, 2011). The researcher analyzes this data to identify a person's or population's interpretation of a phenomenon and reasons that the point of view exists and how that point of view was created (Lewins, Taylor & Gibbs, 2005). Coding, which is a technique often used in qualitative data analysis, is the identification of passages or texts and applying labels or codes to them that are recognizable by the researcher. This enables the researcher to collect and retrieve texts and data with similar associations and organize them as they reference a particular idea or phenomenon (Jansen, 2010; Lewins et al., 2005).

Organization of the Chapter

In this chapter, I will discuss the purpose of this study, its design and why I chose this particular design. I also address my role in directing the study. I then describe the participants, why they were chosen, the sampling strategy, and the requirements for sample size and availability. I then go on to discuss the use of qualitative terms referencing trustworthiness along with any ethical concerns. I detail the application to the Institutional Review Board (IRB) of Walden University regarding the requirements for acceptance and approval. I then close the chapter with a summary.

Research Design and Rationale

The purpose of this study was to explore the perspectives of the African-American female population concerning their perceptions toward the cultural determinates of obesity. This population is unique in that the African-American subculture is suggested to hinder weight management efforts by the general acceptance of cultural and preparatory methods that may not meet the standards for healthy nutrition (Davis et al. 2007). Crawford and Ball (2002) suggested that there was an agreement that obesity was not strictly attributable to genetic factors across whole populations, but that considerations should be given to the influences of the social and physical environment. In this respect, I used a qualitative narrative design to establish the meaning of this phenomenon from the views of the participants.

A qualitative study usually relies on an inductive process to interpret and structure the meanings that can be derived from the collected data (Jansen, 2010; Thorne, 2000).

Using data from interviews and or focus discussions, ideas can be generated in an inductive reasoning process. In this style of research, an interpretive understanding is uniquely possible by uncovering the hidden meanings of a discussed phenomenon (Jansen, 2010, Garip & Yardley, 2011; Thorn, 2000). This data can be collected in many forms including texts, multi-media processes and with interviews and focal discussions.

To investigate a model for positive social change related to obesity, I interviewed members of local churches individually, who could identify obesity personally or by family association. A presentation listing the sample questions posed to the female participants are presented in Appendix A. I recruited volunteer participants through church announcement bulletins after permission was granted through the ministerial leadership. In Appendix B, I present the request given to the ministerial staff for approval. The volunteers were posed open-ended discussion questions regarding their perceptions relating to obesity and the influence of the social or physical environment. The perspectives of these participants could be central to the investigation to increase the knowledge of obesity from a lesser researched viewpoint.

Restate research questions

All research is guided by research questions. In this qualitative study, the research questions were:

1. How do the African-American females feel that the built environment (i.e., the social and physical elements), has affected and contributed to the obesity epidemic?
2. What are the perspectives of obese or overweight individuals on how their current environment with respect to neighborhood or social inputs helps or hinders obesity?

3. What do the study participants view are the effects of the cultural, social or familial environment on weight gain that is specific to African-American women?

Role of the Researcher

The role of the researcher in this qualitative study is to be one of a facilitator and possibly that of a director to keep the participants on par with the discussion topic. The researcher is the primary instrument in a qualitative study and should provide for the reader an understanding of his relationship with the participants and of his knowledge of the subject being investigated (McCaslin & Scott, 2003; Jansen, 2010). Any researcher's biases or perspectives must be delineated and managed so as not to become variables in the study.

As the director and facilitator, I asked open-ended questions with the purpose of allowing the respondents to speak freely on the subject matter. Since the data was collected through a human instrument rather than with pre-written questionnaires or electronics, it is plausible that collected data could present with assumptions, biases and blinders that can cause missed opportunities to see patterns that may be presented (McCaslin & Scott, 2003; Jansen, 2010; Geo-Balch et al., 2011). Therefore, it was of vital importance that I as the researcher, throughout this process stepped back and continuously took a fresh view of the on-going survey direction.

I assumed no personal relationship or biases with the participants other than an occasional attendance at the church facility. Therefore, there could have been an issue of familiarity with some of the participants but not enough to bias the survey. I do confess to the possibility of a personal bias toward African-Americans and the historical plight that

they have had to endure for years but this survey in its structure is more of an effort to bring a voice to those whose issues in this matter have largely gone unheard.

Research Methods

In this study, I attempted to identify and create an understanding of the link between a distinct minority; African-American females and the built environment to the obesity epidemic. The construct was of a phenomenological qualitative design, which is an inquiry where the researcher attempts to identify a population's experiences about a phenomenon through their perceptions and descriptions (Jansen, 2010; Creswell, 2008). The focus of this study was to provide an understanding of why obesity incidences tend to strive within minority social and built environments as a phenomenon. The minority focus in this stance was African-American females due to this Centers for Disease Control (CDC) statistic: that no population in the United States has a higher obesity rate with 4 out of 5 members being overweight or obese (Ogden, 2012).

The population was selected by a convenience sampling, which is described as a non-probability sampling technique where subjects are selected by the researcher because of convenient accessibility and proximity (McCaslin & Scott, 2003; Walls, Peeters, Proietto & McNeil, 2011). The population selection was guided by the following characteristics: low-income individuals (determined by neighborhood and nature of employment) and African-American females, as often they are the ones most often doing the food shopping and meal design.

The guiding principle in qualitative research for determining sample size was saturation (Mason, 2010). Samples in qualitative research are generally much smaller

than quantitative studies as more data in qualitative does not necessarily lead to more information. Qualitative research is concerned with understanding the meaning or process behind a topic and not with making generalized statements or hypotheses (Mason, 2010; Jansen, 2010). Therefore the sample should be large enough to include a variety of diverse perceptions but not so large as to become repetitive and superfluous (Mason, 2010). Saturation is reached when the collection fails to shed new light on the issue or concept of inquiry.

Charmaz (2006), in a prior study focusing on the stigma associations with obese women, indicated that saturation could be reached quickly needing a limited number of subjects. For phenomenological studies, Creswell (1998) and Morse (1994) suggested that a number of subjects of 5-25 would be being sufficient.

Data Collection

The data for this study was collected by primarily by conference phone interviews dependent on convenience factors. The volunteer participants were asked open-ended questions concerning their thoughts on the prevalence of obesity within their lives, families and communities. I directed toward their perspectives on how to quell the on-going increased incidences of overweight and obesity within their population. Questions for example dealt with subjects of diet, motherhood, culture, and minority discrimination aspects that precluded and sustained obesity.

When selecting participants for qualitative the researcher looks at the reasons for human behavior and analyzes specific cases in detail. The selection of participants is

often uniquely done by purposeful sampling, which suggests choosing participants who fit the characteristics being studied (Koenig, 2014; Jansen, 2010).

The participants in this study of obesity should share characteristics of age range (20 years and above), income (poor to lower middle class), religious affiliation (church going or a religious belief) and marital status (married or not, but generally head of household). Koenig (2014) suggested choosing a location for sampling, then identifying persons that meet the sampling criteria. After making the initial selections, Koenig (2014) suggested to ask the persons selected to suggest other possible participants that could qualify.

African-American females are a population that has a majority spiritual mentality, and often prefer an intervention mediated through spiritual or church association. Davis et al. (2005) in his review of the social and racial differences of weight loss programs of obese women indicated that a major theme of African-American participants was to have their emotional and psychological concerns remediated through spiritual means. Following these guidelines, I recruited participants for this study through their church associations with approval from the ministerial staff. The sharing of food is often a social function within African-American societies, especially within the church community and could offer a unique place to recruit participants for this study (Gaines, 2010; Dingfelder, 2013).

The participants were given an overview of the study with the understanding that there would be no pressure to participate. They were provided an informed consent document explaining the risk versus benefit ratio of the study and the assurance of strict

confidentiality. They were reminded that at any time they could choose to leave the study without stress or ramification. Due to the possible stigma that aligns with any obesity study, protection of confidentiality will be of the highest priority. A study of this nature must assure confidentiality as some individuals may fear discrimination due to an attribute or cultural lifestyle that may open them to public scrutiny and they might adjust their responses because of it (Puhl & Heuer, 2010). To avoid this concern, protective measures such as coding of participant's responses and identifications, locking away of all records and limiting access to the data was instituted.

Issues of Trustworthiness

The trustworthiness of qualitative research is often questioned in peer-reviews, because assurance concepts of validity and reliability as standards in quantitative studies cannot be measured in the same way. Frameworks to ensure rigor in qualitative studies include four criteria: credibility, transferability, dependability and credibility (Shenton, 2004; Geo-Balch et al., 2011). Shenton asserted that qualitative measures for quality assurance were in agreement with quantitative in the following manners:

1. Credibility (in preference to internal validity): The investigator attempts to demonstrate that a true picture of the phenomenon under scrutiny is being presented.
2. Transferability (in preference to external validity): The investigator attempts to provide a sufficient detail of fieldwork for the reader to decide whether generalization is possible to another situation to which he or she is familiar and can be justifiably applied.

3. Dependability (in preference to reliability): The investigator strives to create a study format that a future investigator could follow for a repetition of the study with similar participants to receive similar results.

4. Confirmability (in preference to objectivity): The investigator takes steps to demonstrate that the reported findings are from the data and not from personal biases or predispositions.

A qualitative researcher's perspective can naturally incur bias due to a close association with the data, and therefore strategies must be used to confirm and report all data (Shenton, 2004; Garip & Yardley, 2011). Two key methods are necessary to limit bias. The researcher's choice of participant sampling can limit investigator bias that ensure unknown or unaccounted for influences are evenly distributed within the sample. In triangulation; the use of observation, focal and individual interviews, gives the researcher differing aspects of viewpoints of the projects under study and offers a means of verification against a range of participant contributions (Shenton, 2004; Garip & Yardley; Jansen, 2010).

Ethical procedures:

Ethical issues in qualitative research are often more subtle than other research modules and often includes long-term and personal involvement. Field research including participant observation and interviewing is largely based on human interaction as the investigator himself is the measuring instrument (Boydell, 2007; ten Have; de Beaufort, Teixeira, Machenbach & van der Heide, 2011). In qualitative studies, ethical concerns should be addressed in four areas of concern: protection of the participants from physical

and psychological harm, prevention of deception, protection of privacy, and informed consent (Boydell, 2007).

The responsibility of the investigator to the participants includes issues that ensure confidentiality, avoidance of harm and feedback of the results. The investigator must discern ethically important moments especially when the participants indicate discomfort with a question or answer, or when a vulnerability is revealed through a sensitive probe (Boydell, 2007; McCaslin & Scott, 2003; ten Have et al., 2011; Azevedo & Vartanian, 2015).

Boydell (2007) suggested the following ethical components when attempting qualitative research:

- the establishment and maintenance of trust,
- the establishment of an on-going consent,
- the management of the terms and conditions of the research relationship,
- the handling of any developed relationship with a vulnerable population and
- the avoidance of a perspective of an alliance when participants reveal more than necessary.

Finally, in addressing ethical issues, participants must be assured of anonymity, compensation (monetary or a positive risk versus benefit ratio), and confidentiality with disclosures and any sensitive revelations (Sanjari et al., 2014; Coughlin, Soskolne & Goodman, 1997). Participants must be often reminded that they could withdraw or refuse to participate without penalty or scrutiny at any time.

Addressing the Walden IRB application:

According to the standards set by the Walden University Institutional Review Board (IRB), a request to receive approval to conduct an inquiry is a requirement of any Walden University research. No data collected prior to receiving explicit IRB approval will qualify for academic credit toward the degree requirements (IRB Ethics Review, version 2010A).

The IRB is responsible to ensure that all Walden University research complies with the university's ethical standards as well as with United States federal regulations (IRB, 2010A). In submission of a request for IRB approval, I made descriptions as to how vulnerable populations would be protected from risks of privacy and safety issues and from pressures to participate. Provisions for obtaining and documenting consent were submitted and unsigned for approval prior to research. Community partners, such as churches or similar organizations' willingness to participate were given by submission of a documented approved letter of cooperation as required by the IRB. This documentation sample was available to be down-loaded from the IRB website.

To ensure confidentiality, a signed Confidentiality Agreement was needed for any person involved, with the inclusion of measures to remove any identification prior to participant file access. Prospective participants were requested to sign an Authorization to Use or Disclose PHI for Research Purposes form which could be downloaded from the IRB website. The researcher must have avoided any conflicts of interest as described in Section V: Potential Conflicts of Interest as described in the IRB policy.

Summary:

In Chapter 3, I discussed the qualitative processes included in moving forward in this study. This study using a qualitative viewpoint, discussed how the participants could view obesity as a by-product of their interaction with the physical, social and cultural environment and not merely a result of bad eating habits or lack of physical activity.

The research design and rationale of choice were described as well as literature background and cited views of authors and researchers of similar studies. In this chapter, I expounded on the use of a qualitative study and how its presentation could uncover hidden meanings while giving voice to the participants. Restatements of the research questions and purpose were included with a section defining sample selection and saturation. Qualitative terms were defined, possible ethical issues delineated and information presented on the means of protecting participant anonymity. The requirements of the Walden University IRB were stated and emphasized as requirements to complete this inquiry. In Chapter 4, I present results of the research study, describing the demographics of the participants, the data collection and analysis process and a discussion leading to interpretations and recommendations of Chapter 5.

Chapter 4: Results

Introduction

Obesity is an important health concern in the United States and worldwide. The direct focus of this inquiry was on African-American females and their perspectives regarding obesity. The purpose of this inquiry was to query the perspectives of African-American females about why they believed their population was at such a high risk for obesity. The aim of this study was to illuminate views from a specifically involved population that have led to obesity. The information garnered through qualitative inquiries of this type could help tailor interventions that would more correctly suit the involved population's needs and address barriers that have detoured interventions in the past.

I used a narrative qualitative inquiry method to uncover a gap in the lay understanding and clinical definition of *obesity*. If this population believes that being overweight is not the concern or challenge that the clinical or public health models have defined it to be, there will continue to be a lack of understanding of the need to address this issue.

Chapter Organization

In Chapter 4, I summarize the participants' demographic information and show how I collected and analyzed the data. I present results of the interviews as data or themes for the research questions. I then summarize the findings and possible

implications. I discuss trustworthiness will be discussed in terms of qualitative research with discussions leading to a summary in Chapter 5.

Participant Characteristics

The participants in this study were selected by convenience sampling, with final selections guided by their responses to a screening questionnaire. The questionnaire itself was composed of 26 questions soliciting multiple choice responses to ethnic background, education; neighborhood and culture (Please see the reference appendix for the complete set of questions). I used exclusion criteria included responses that indicated non-African-American, moderate to high economic position and non-responses to direct inquires to the obesity epidemic within the black community. I felt that these respondents would not strictly address the concerns stated within the research questions and could skew the final conclusions concerning the influences of the culture and social environment on obesity.

Thirteen participants participated in the interview process. The participants that volunteered were English-speaking African-American females, aged 35-65, who self-identified the being head of the household. Head of household was suggested to mean that decisions such as bill paying, food shopping and most other household decisions were made by them. The participants were well educated, with all education levels of the participants ranging from completion of high school to some college, with the majority claiming at least a bachelor degree. Six participants that did not claim to be head of household were eliminated from the final selection tally. One which affirmed that English was not her primary language was also eliminated. The interview sessions lasted an average of 35- 40 minutes which was less than the allotted 1 hour. This shortened time

was due to scheduling and time restraints for the participants and some apparent uneasiness with the stigma associated with the topic. I surmised by the slower responses to some questions and a reluctance to provide detail when requested. Responses such as *"I don't know" or "I'm really not sure"* suggested further probing would not offer completeness on the question of concern. These responses were eliminated.

Participants

Originally, 20 participants volunteered through the screening process. These participants were middle-aged African-American females, and according to the screening form were English-speaking and head of household. Some participants were eliminated as they were not head of household and verified that English was not their primary language.

Table 3

Participant Characteristics & Demographics

	18 -- 34	35 -- 54	55 -- 74
Age (years)	4	10	2

	0 -- 1	2 -- 4	>4
Family members per household	5	12	0

	Yes	No	No response
Head of household	12	5	1

Table continues

	High school	Some college	College graduate
Highest level of education	0	5	13

	Very	Somewhat	Not at all
Perceived importance of culture/race	13	5	0

	Yes	Somewhat	No
Grocers with reasonable costs	15	2	1

Research Procedures

The data collection method was done by the use of interviews both personal and via conference call. I used interview questions that were self-designed and focused on the participants' views and opinions on how environment, social connections, family and health disparities could affect obesity within African-American populations.

The data collection commenced after Institutional Board Review (IRB) approval. An informed consent form that further detailed the inquiry and requiring an approval signature was obtained from the potential participants before interview. All interviews were conducted and transcribed by free conference call.com or by audiotape and transcribed dependent on participant preference. Most participants due to work and family obligation schedules were not able to join the conference-call sessions. Only 1 pair of participants was able to participate on-line for the conference call. Other participants were given the option to have a personal interview. This interview was recorded using an

Olympus microcassette with pre-approval of the participant. I developed transcription and codes by carefully listening to the interview and developing patterns or themes as they related to the research questions. It was suggested by a participant that if given a list of the interview questions to submit as a follow-up to the initial interview response, they could fully expound upon their verbal responses. I agreed with this request as it enabled verbatim transcription of the responses from the interviews. I used a conventional approach to analyzing the content of the interviews was used in the coding process and ultimate description of the data. Collection of the data was achieved through the use of open-ended questions with follow-up or probing questions that were generated according to the participant's responses. A recording of the interview was transcribed and used to create themes of the content. This process allowed for direct information from the participants without imposing preconceived categories or perspectives to avoid bias.

Potential participants were given prior to interview an overview packet of the inquiry (see appendix) during the presentation session which they were allowed to take home for study before consenting to participate. The packet contained an introduction of the research, the screening questionnaire, a consent form requiring signature and my contact information. An emphasis was made through-out the process that no one would be pressured to participate and that any prospective participants could withdraw at any time. Although all participants were asked the same questions, the interview process allowed for individual responses with follow-up questions being adapted to those responses.

1. Record via conferencecall.com the interview process or audio-tape recording.
2. Review transcription from conferencecall.com or audio tape for repeating words or themes with participants.
3. Create themes by highlighting recurring words and phrases.
4. Associate themes with research questions.
5. Highlight creation of sub-themes during interview process.

***Figure 1*: Process for Analysis**

Process for Data Analysis

After reviewing the research questions, preliminary codes were developed and written down as a guide to the creation of themes. As the interviews were reviewed, codes words or phrases were matched to themes that were developed prior to the interview or in most instances, new themes were developed to match the codes. 17 themes were developed from the interviews and were matched or associated with the research question that they most closely represented. Interview comments that could have been considered outliers to the normal or standard views of the participants were presented as differing findings.

Table 4

Themes Developed From Research Questions

Research Question 1: The Effect of the Built Environment
Restricted access to resources / health providers
Lack of food resources or providers
Food pricing
Convenience of fast food restaurants
Limited mobility without vehicle use
Research Question 2: Current Effect of Present Neighborhood on Weight Intervention Efforts
Safety issues
Limited or no access to parks or gyms
Lack of walking or biking trails
Lack of provider guidance or education
Associated stigma
Abundance of fast food options
Research Question 3: Effect of Culture, Social & Familial Environment
History of unhealthy food preparation
Influence of family and habits
Work schedules
Economic barriers
Glorified larger size
Exercising versus hairstyles
Eating for comfort or pleasure
Perceived male preference of larger size
Social gatherings

Data Analysis

In reviewing the responses of the participants, a focus of the majority of participants seemed to be on research question 3, which asked of the effect of culture,

social and family inputs on the obesity epidemic. A large percentile of participants expressed views describing a real connection within the African-American community between the socio-cultural perceptions of body size and weight control. Perceptional indicators of good health, female dominance or sex appeal have made being of a larger size a culturally accepted norm in the African-American female population. Historically, the African-American subculture has continued to hinder weight loss management interventions by a general acceptance of cultural ideals and meal preparatory methods that often can enhance weight gain.

Research questions 1 and 2 that focused on the built environment and the influence of neighborhoods offered a somewhat limited but existent effect from the view of the participants. This may have been due to the selection of voluntary participants, which may not reflect the view of others that could be more bound by their environment. The majority of participants in this study were mobile, working class females that saw a lesser effect or concern from the built environment within their communities.

In order to preserve confidentiality, I assigned the participants were a coded identification, which allowed discreet participant anonymity. The code "Participant(x)" represented the volunteer participants, with (x) representing the numerical association. This coding though simplified, allowed for strict confidentiality as no other identifiable associations were made. Voice recognition was not an issue for bias as transcription was used to present vocal interviews. Any evidence of vocal interviews was erased after transcription.

Evidence of Trustworthiness

In addressing trustworthiness in qualitative research, it is necessary to address credibility, transferability, dependability and confirmability. Credibility as discussed in Chapter 3 could be maintained through peer debriefing, triangulation and observation. The methods to maintain credibility were: (a) peer debriefing: as established by Chair and associates over-seeing the inquiry,(b) triangulation: by use of audio-taping and conference calls which would give the researcher differing aspects of the viewpoints of the participants without involving researcher bias, (c) observation: by noticing facial expressions or uneasiness with posed questions or a reluctance to answer certain questions and (d) member checks: where participants would transcribe their responses post-interview to a list of questions used during the interview process.

Transferability entails demonstrating results to any environment or situation. This could be difficult with such a small population of these particular demographics. Its design does however allow for another investigator to follow it with another population of a different demographic or environment. The results may differ but the design could easily remain constant.

Dependability would be present with the use of this question and answer type format. The questions are such that they will elicit responses such that another researcher could have no problems repeating the work. The same result might not be realized, but the operational design is simple and yet detailed enough that information can be gathered by the researcher without risk of confidentiality.

Confirmability was addressed also by the question and answer type format that focused on the views of the participants and not the researcher's bias. The procedure of having the participant repeat their responses by writing them allowed verbatim transcription and development of true themes. This additional procedure also all but eliminated researcher's bias in the transcription process.

Presentation of Interview Data

The data is presented in order as associated with the research questions. In order to increase credibility, the participants were given copies of the interview questions so that they could write their statements post interview to verify what they had stated during the interview process. In presenting the interview data, concise representations of the participants' statements are given as written by them. The responses most relevant to the inquiry are posted. Participant responses of" *yes*, *no* or *I'm not sure"* were deleted. The interview questions chosen below are based on the research questions in order to smoothly transition the process and allow the participants to speak freely. The entire interview question set is placed in the appendices. A synopsis is presented after each interview question as a review of the findings.

Research Question 1: The Effect of the Built Environment

Participant interview questions 8, 9, 10, 11 & 12 help develop 5 themes to answer the first research question concerning the effect of the built environment as presented in Table 2. The five themes were: (a) restricted access to resources and providers, (b) lack of resources or providers, (c) food pricing, (d) convenience of fast food restaurants and 5) limited mobility without vehicle use. (Participant responses to questions 9, 11 & 12

which were extensions of 8 and 10 overlapped in the interview and are presented with in participant responses 8 and 10. A complete listing of the interview questions are presented in the appendices).

Interview Question 8:

What are your thoughts on how the surrounding environment within your neighborhood affects weight gain?

This question helped develop the theme of access: especially to providers of foods and health services. The participants discussed how the felt the built environment affected their ability to access needed services or items.

Participant 2:

My surrounding environment and neighborhood has a prevalent of fast food restaurants and this makes them very convenient and accessible. Easy access often means eating foods that aren't healthy but again, it's a matter of convenience. Early on, kids learn to want "McDonalds" from TV and other kids. That kind of advertising works well, because when they see the restaurant they want that food, especially the fries.

Participant 3:

My surrounding environment encourages weight loss. A county park is less than a mile away and anyone just driving by will see people walking, jogging or running constantly. It encourages me and I hope others to want to exercise and have fun like they seem to be having.

Participant 5:

The surrounding environment does have an effect on weight gain, but I think it is more of the effect of culture and family. African-American families are especially high risk due to the way foods are prepared. We use more salt and fatty foods and it has always been acceptable to do this within our culture. Any attempts to make changes to more healthy planning could very well cause open discussions about you and risk being ostracized or excluded at the next social gathering.

Participant 14:

I would not consider my neighborhood safe for outside activities like walking or jogging. It's just not worth the effort if you don't feel safe. There are also an abundance of fast food places and speaking for most of my friends, it becomes a matter of convenience or money as to whether you go there. Sometimes so-called healthy foods are so expensive that you avoid them to stay within your budget. And to add to that, getting foods that no one wants to eat is a real waste of money.

Participant 15:

If I were to speak in general terms, the surrounding environment should be safe, so that people so that people can walk or exercise outdoors. There should be available parks or gyms for exercise and food sources should be available to encourage healthy eating.

A differing view:

Participant 12:

My neighborhood promotes healthy eating habits. The available parks and gyms make exercising an easy part of a daily routine. Also, there are grocers presents that offer fresh

foods at reasonable prices. So basically the environment is not really an issue for me as living in a racially mixed neighborhood caters to the need of a variety of people.

Review and Synopsis

The participants expressed views that the environment, especially the social and family aspect could affect weight gain. The cultural methods of food preparation with highly seasoned fatty or salted foods remained concerns. Safety as an issue worked to decrease the probability of outside activities even when the opportunities were present. Some participants voiced a differing opinion with the topic of environmental influence. It was stated that the present environment did encourage physical activity and ultimately weight loss with the presence of parks and areas for recreation. It appears that the environmental impact is subject to where one lives. Environment not only was stated to involve the physical layout, but the presence or absence of merchants or grocers versus fast food restaurants. Economics remained an issue for discussion, for even if the grocers were present to provide fruits, vegetables and other healthy offerings, affordability was important.

Interview Question 10:

Do the available grocers in your area offer fresh fruits and vegetables at a reasonable cost?

The theme developed here was the barrier of healthy food pricing. The participants offered opinions as to how food prices affected their ability to provide for their families.

Participant 2:

Fast food places are very prevalent in my neighborhood. Grocers that do offer fresh fruits and vegetables do so as reasonably as can be expected, I suppose. I do wish that reasonable meant less expensive and more choices though, because that certainly would help.

Participant 7:

Unfortunately, what grocers that are available do not offer reasonably priced fruits and vegetables. You would do better buying fast food; your dollar would go further and there's a better chance of it being eaten. There are so many choices of fast food places around that it becomes pretty easy to choose a different one daily.

Participant 11:

Grocers in my neighborhood do offer fresh fruits and vegetables, but I don't feel the prices are reasonable. Sometimes it makes you think twice about healthy eating when the so-called unhealthy choices are so much cheaper.

A differing view:

Participant 9:

I live near two farmer's markets so there is an abundance of choices with healthy food items. Fresh fruits and vegetables and other healthy choices for meats and seafood makes me rarely eat fast food. Of course, there are several fast food restaurants in my area, but I prefer what I feel are the healthy choices.

Review and Synopsis:

The participants expressed that the built environment in their neighborhood often limited their choices for healthy eating. Not only were the choices limited, but pricing was another barrier. The participant that expressed a discrepant view noted that when choices for healthy eating were available, she preferred that for her family. It seems that barriers of choice and pricing often caused the choosing of fast food restaurants over grocers rather than taste or reluctance to healthy foods.

Research Question 2: Perspectives on the Effect of your Current Environment on Obesity Interventions

Participant interview questions 13, 16 & 23 helped provide 6 themes to answer the second research question concerning the effect of the current environment on obesity interventions and are presented in Table 2. (Additional interview questions 17 & 22 helped to expound upon the participant answers and are presented within the responses to 13, 16 & 23. The complete list of interview questions is presented within the appendices.)

Interview Question 13:

What are your feelings on how your current environment helps or hinders efforts for weight loss?

This question elicited responses that could reveal how the participants felt their neighborhood affected weight gain. Major themes were ones of safety and the limited accesses to areas of physical fitness were prominent. The stigma of having a weight that seemed outside of the accepted norm was suggested.

Participant 2:

My current environment encourages weight loss but the focus I feel should be more on the person. I live very close to a hiking trail that allows walking, running or cycling. It is however discouraged to go alone for safety reasons due to it being very wooded. But if you don't really want to get out and exercise, no amount of safety will make a difference to you and you will always find an excuse.

Participant 7:

There is no real access to a fitness center in my area. If there was, I feel that would be beneficial. Safety is a real issue with the way it now. It upsets me and causes me fear of harm if I tried to walk or run in my neighborhood. So even with the correct mindset, safety is a bigger issue. Another problem is my friends. When I try dieting or exercise, they often have negative comments that are very discouraging.

A differing view:

Participant 12:

I feel my neighborhood helps due to the presence of sidewalks and many areas to exercise. The area is well lighted with parks nearby. Because of the way my neighborhood was designed business-wise, there are a numerous healthy food choices.

Review and Synopsis

This question continued the discussion of the influence of the environment. There were both positive and negative responses. However, the effect of safety remained constant. Even in communities that had adequate physical inducements such as lighting, sidewalks and recreational facilities, the issue of safety continued to dominate the

discussion. It was of interest that the newer communities did include a design for physical activity, suggesting that the Public Health message is being heard.

Interview Question 16:

Do you feel that the CDC is correct in suggesting that African-American females have a high proportion of over-weight members? How do you think these statistics are acquired?

This question helped to draw out the theme of reliability of statistics per the participant's perception. An emphasis questioned how the statistics were acquired and from what population.

Participant 13:

I guess mainly by observation. Sure, we are a larger sect of people, but can they say we are larger due to our poor eating and exercise habits or because we are a larger race and are measured by a majority standard? I wonder: it's certainly something to think about.

Participant 10:

I would think by their statistics, but I'm not sure how they get them. But truefully speaking, the lack of safety in many neighborhoods does not allow physical activity outdoors. So they stay inside and eat unhealthy foods and watch TV.

Participant 2:

Yes, I feel there are a high proportion of overweight members in our population because we do not feel we are "that" overweight and we believe we all cannot be skinny like other women. Besides that, with all we do we deserve cake and ice cream. But back to the question, the statistics are probably acquired from insurance records and case indexes since most African-Americans do not participate in surveys. I do not think the assessment

is always fair because I do not think the statistics capture enough healthy African-American women.

Participant 8:

I would say no because all races to a point have overweight members. Perhaps the lack of insurance plays a point in the statistics point away from them. For instance, Hispanic or Latin women who may only pay cash for their visits because of the lack of insurance. So if the statistics are due to health provider or insurance reporting, many other population types might not be counted.

Review and Synopsis:

The participants suggested that although African-American women by CDC statistics have one of the largest reported incidences of obesity within its members, there was concern about how the statistics were obtained. Genetics, safety issues, client participation and health provider reporting were suggested to have an influence on the way the CDC's statistics were acquired.

Interview Question 23:

If being overweight can be tied to your environment, what would you suggest be done to change it?

This question brought the themes of safety and access, how each could be improved for the residents.

Participant 11:

If the grocers would provide better selections of food at more reasonable prices or if the communities could eliminate some of the fast food restaurants, that would help. The

community leaders should stress the development of stores like farmers markets and stores of this nature that specialize in fresh fruits and vegetables. These type changes would improve the present environment.

Participant 7:

Gyms or health clinics need to be developed in close proximity so that they could work with people's work or life schedules. The presence of more sidewalks with better lighting is certainly a need, but I would still be concerned with safety too much to go out walking especially when I get off from work.

A differing view:

Participant 3:

I suppose this is a differing opinion from most, but I'm lucky to live in an environment that encourages an active lifestyle. There is adequate lighting and nearby gyms. I also enjoy the fact that healthy food options are available and fairly reasonable.

Review and Synopsis

The environment has been tied to the incidences of obesity within minority neighborhoods. Needed changes could include the development of gyms or recreational facilities that would offer programs and schedules for the working class. The inclusion of grocers such as farmers' markets for the providing of fresh fruits and vegetables with a reduction of the number of fast food restaurants would reduce the effect of the environment on obesity. Although some communities are stated to have progressed in this direction, community leaders must continue to assess the design of neighborhoods especially in minority areas for improvement.

Research Question 3: The Effect of the Cultural, Social and Familial Environment on Weight Gain

Interview Question 2:

When you are asked questions about weight loss, what specifically comes to mind?

The theme of knowledge and understanding of health associated issues was addressed here and the participant's perception of the needs to control weight.

Participant 1:

I think about how overweight I am. I never seem to fit the scales that the health sciences propose as the correct sizes for my height.

Participant 2:

What do we need to do? It may seem vain, but when you drop $100 on a hair style, exercising is the last thing that comes to mind. I mean with all that sweating, you will certainly mess up your hair.

Participant 4:

When I'm asked questions about weight loss, I think first if I should lose weight or do I need to if I'm happy with my size. My man doesn't complain about my size, he seems to like it and that's most important.

Participant 6:

Maybe if I think about it, I could lose a few pounds but I don't like the idea of fad diets. The question is how do I make it work long term? I've seen people lose weight then regain it plus a lot more. That would be very difficult.

Participant 8:

I guess I think about how being overweight could affect my health. I've had relatives that suffered from problems such as diabetes, high blood pressure and aching knees and joints. I really don't want that. Then I wonder if its genes because if it is, I don't think much can be done about it. We're a big-boned family and I don't think that can change. Also, there are barriers to losing weight like social gatherings that seem to always have good food but maybe not the healthiest.

Review and Synopsis

In reviewing interview question 2, the participants did show an awareness of the need to control weight. It seems that being overweight is not as strict to them as the general height versus weight ratio as prescribed by health systems. If appearance was the issue of concern, then there was an agreement that the scales for being overweight are skewed in terms of their racial counterparts and do not give a clear picture. When there was a discussion between weight control and health, the majority of participants were in agreement that weight control measures are needed. Culture and genetics were mentioned as influences of weight control and are elaborated further in the interview.

Interview Question 4:

Why do you think the CDC has targeted African-American females as being one of the highest rated minorities for being over-weight?

This question again referenced the statistics of the African-American female and obesity; how these statistics could be determined and how they could be misleading. The

stigma associated with being African-American and judged by other race's standard is suggested.

Participant 14:

I guess their statistics have a lot to do with race: black body sizes as compared to white. I feel that we as African-Americans are just a larger group when compared to other races especially in the thigh and buttock area and no account is made for that.

Participant 5:

Our culture is such that we are a larger race of people. Being a larger size is culturally accepted and not seen as a stigma as with other races and therefore is not a big deal as others may think.

Participant 2:

African-American females face double jeopardy due to race and gender, so they are automatically eliminated from the first and second statuses in economic, social and psychological considerations. What I mean is if African-American females are being compared size-wise to charts for height versus weight designed for white women, of course, we are overweight and far outside of the "normal" parameters for CDC statistics.

Review and Synopsis

In reviewing the responses to this question, there was a general consensus that the CDC statistics are skewed by appearance and participation. Most interviewees felt the African-American female race is genetically a larger breed of people and this is emphasized in the lower body dimensions. Cultural acceptance of a "normal" size includes a larger framed female. There was no stigma attached or suggested need to lose

weight when size was in question. The statistics acquired by the CDC were suggested to not have a true focus on the population of concern but showed a biased result because of the lack of participation by blacks in surveys of this type. The surveys were viewed as being based not on African-American responses but from responses other races and not a true indicator.

Interview Question 5:

What do you think could be some positive changes in your life if you lost weight?

This question addressed both social and cultural influence themes. It also addressed the level of understanding of obesity associated illnesses with the participants.

Participant 1:

I could wear some of my older clothes that have gotten too tight or I could become more active. I kind of miss being able to play softball. I'm sure I would feel better about myself when I look in the mirror.

Participant 5:

I could have more energy and a longer life, as I feel the health problems that come with weight gain would go away. I understand now that blood pressure and diabetes have links to being overweight and I think as African-Americans, we should recognize this fact and strive to make changes.

Participant 9:

I feel that I could stop taking so many meds and maybe have less joint pain. I'm sure I could have a lot more choices in clothes and that would work well since I really enjoy shopping.

Review and Synopsis

Outward appearance was important to the participants. Interest was high in clothing styles, as many voiced how they could wear more diverse clothing styles or have more choices if they were smaller. Becoming more active was high on the list of positive changes as most participants felt that weight loss would increase energy levels. Of equal importance to the interviewees was an emphasis on the health concerns that could accompany weight gain. Participants showed a unique understanding that there was a connection being overweight and good health. The presence of high blood pressure, joint pain and diabetes were mentioned as chronic issues that could be tied to being overweight. A reduction in the need for prescribed medications with weight loss was also discussed.

Interview Question 7:

Do you feel that culture influences weight gain? How?

The theme addressed here was the effect of cultural and social influences and how they can be barriers to weight loss.

Participant 2:

Yes, culture influences weight gain because most African-Americans have a history of cooking high calorie foods. Everybody has or has had a “Grandma”, “Big Mama” or “MaDere” that cooks the most delicious foods or bakes the best desserts.

Participant 1:

Culture and economics affects what you can eat by determining what you and your family can afford. Sometimes or often this means eating foods that aren’t considered the

most healthy. But you have to consider that when these items are those that are most accessible and affordable, you have to do what you have to do.

Participant 3:

I feel culture influences weight gain because the African-American culture embraces "healthier" women. Men seem to want women with "meat on their bones". This translates to women that are considered overweight are more desirable than women who are normal-sized or "skinny".

Participant 7:

Eating foods based on our culture often causes often causes weight gain. Fried foods, heavy gravies and fatty foods are a constant and they have been a habit since forever. This is what we've been raised on and we're been taught to eat everything on the plate.

Participant 15:

Culture influences the things we eat and drink whether at home or out. It influences how we cook or prepare meals. And if we consider how much things cost, a lot of times affordable outweighs healthy when you're trying to feed your family.

Review and Synopsis

Participants agreed that there was indeed an influence of culture to weight gain. This was offered in reference to how historically African-Americans cooked and served high calorie foods. As there was always a great cook in the family, gatherings became social events with the serving of foods that were hard to resist. You also did not want to offend the host by not eating a large portion. Culture was said to have an influence on what was cooked and how it was prepared more so than how healthy it was.

The cultural embrace of healthier females was another issue. The participants felt that males seemed to prefer females that health provider systems would consider overweight to those that were of a normal size. Economics played an importance role in the discussion of the influence of culture. It appears what the family could afford and what was reasonably sold made a difference. Sometimes stretching the food dollar meant buying items that were not the necessarily healthiest, but most affordable.

Interview Question 15:

What do you feel are barriers to weight loss among African-American females?

This question addressed again the participant's perception of cultural, social and now economic barriers. Themes of schedules, economic and family responsibilities were prominent.

Participant 9:

Good food. It's really difficult to cut back on good food like fried chicken, greens with fatback and barbecue ribs without a lot of effort. It has just become part of our social culture: sharing good food and conversation.

Participant 12:

I think the barrier is within our genes. We tend to be a lot heavier than other races. Then too, our culture seems to glorify extra weight in certain parts of our bodies rather than seeing this as a potential problem. So there isn't much of a push to control or reduce weight especially with the females.

Participant 2:

African-American females tend to assume too much family responsibility. They have to cover the standard household roles (chauffeur, cook, maid, mother and wife), but also often are the caregiver for family and relatives. They also assume demanding roles in church and community organizations resulting in little time for herself and even less for exercise. In discussion with my friends, they really hate to sweat cause it really does a number on their hairstyles.

Participant 3:

I feel a major barrier to weight loss in the African-American community is the cultural acceptance of obesity and being overweight. The general sentiment does not encourage weight loss, but encourages women to look “healthy”. The lack of healthy foods and a culture that includes as normal a relatively poor diet and eating habits do not help.

Participant 7:

Even though culture is a major barrier, I feel like the lack of knowledge, motivation on our part and the lack of encourage from health providers is also important. Even when you go to the doctor, the first thing they do is criticize you for your size and rarely offer constructive advice or pointers on what’s available to help you with weight loss.

Participant 8:

I feel the major barrier is economics. When you’re a single parent as many are, you have to decide how best to spend your money. You’ve got to feed your family and pay bills. There’s also the issue of school needs and clothes. Money can only stretch so far and you’ve got to do what you have to do.

Participant 15:

I feel that there are several barriers to weight loss with African-American females. The culture of cooking and eating unhealthy, the lack of motivation to exercise and less than safe neighborhoods to walk or run are concerns. Even when healthy foods are available in your community, they're often so expensive that you could get more for your money buying fast food.

Participant 13:

Exercising is not appealing to a lot of African-American females because they take great pride in their hairstyles and working out can easily ruin a fresh hairdo. Time certainly is an issue as women of our culture often take on the "Superwoman" role and there aren't enough hours in the day work, exercise and prepare healthy meals.

Participant 3:

Barriers can include not having safe parks within walking distance or having affordable gyms in the area. There seem to always be a prevalence of fast food restaurants in black neighborhoods and although convenient, this certainly can't help if you're trying to lose weight. I do feel however above all this that the cultural acceptance of obesity is most significant.

Participant 4:

Time is a barrier for me. Depending on the family situation, there may not be enough time to devote to exercise. Even if you can work out the time thing, then there is money. Gyms are expensive, trying to buy fresh fruits and vegetables can almost be a horror story with their costs and then you have to convince your family to eat them.

Review and Synopsis

Several barriers to weight loss were mentioned by the interviewees:

1. Good food: Food as a social connection was discussed as a cultural icon for African-American families and continues to be so. The problem was seen as mostly due to food preparation with the uses of salt and frying methods.

2. Genetics: African-American females were felt to be genetically a larger group of people and are destined to be that way regardless of diet. Because of this, exercise was discussed as a way to control being overweight, but the concern here was the sweating and ruining of expensive hairstyles.

3. Responsibility / Time: The African-American female has the unique responsibility of often running and controlling the household. Most are head of household, meaning in the absence of a male, they cover both male and female roles in the family. Adding to this, community or civic responsibilities, they have little time to devote to personal items including nutrition and or exercise.

4. Cultural influence: The culture of the African-American community has historically accepted the larger to overweight female as a standard or even physically appealing. Cultural preparation of foods has been accepted as normal or even required and these habits will probably not change in the short term.

5. Economics: Many African-American females were discussed as being single parents and often the sole support of the family unit. In this regard, decisions were often made on how monies must be spent. Often after budgeting for bills and daily expenses, little is left for the purchase of healthy foods even when they are available. The cost of nutritious

foods is a barrier for many African-American families and if the family does not care to consume the food, it becomes a waste of money.

6. Knowledge and Motivation: It was apparent from several participants that knowledge and encouragement were strong motivators for weight loss. Health care providers must continue to educate of the implications for chronic disease due to obesity. It was suggested that compliance would be higher if health providers would teach rather than embarrass or stigmatize. Although many participants were aware of the consequences of obesity, few felt that it was a real issue for them.

7. Safety: The environment with reference to safety was noted as a significant barrier to weight loss. Even when the physical environment included inducements for physical exercise, participants stressed that the fear of safety would inhibit them from being outside especially after hours. It is important that developing communities continue to address the need for physical activity with the addition of walking and bike paths, but the issue of safety must also be include as a necessary improvement.

Interview Question 24:

Public Health has suggested that culture is linked to obesity. Do you feel that this perception is correct?

The theme of education and knowledge of culture and the influence to obesity is addressed.

Participant 12:

Yes, I feel that there is a link between culture and obesity. Public Health is correct with this link due to the general acceptance of African-American women being more

overweight than other cultures. We love our desserts and the way we prepare our food. It is really a social issue. Unfortunately, some of the foods we like most are fatty and not very healthy. There has even been a perception among some of my friends that when African-American females lose weight, there would be the thought of it being drug related or even illness. I don't feel this is true, but I've have heard it quite often.

Participant 9:

I feel the Public Health perception is somewhat correct. All cultures to a point have overweight issues due to their diets. If people grew up on certain types of foods, it would be hard to train them to new habits and foods that would be considered healthier options.

Review and Synopsis

Participants agreed that there was a strong link between culture and obesity especially within the African-American community. The general pattern of thought was that the general acceptance of being overweight was the key. The food, especially the way it was prepared was described as being as issue associated with culture. The strong social connections between food and gatherings with African-American also would be difficult to change and many would never want to do this.

Interview Question 27:

What would you tell a health provider is the best thing he or she could say to help you lose weight?

The theme addressed here concerns the assistance of health providers in helping their clients control weight.

Participant 12:

The health provider could continue to remind us of the concerns or illnesses that could be associated with being overweight. I feel however in the long run that everyone has to make up their own mind about this. You can only be shown or told so much then you have to want it for yourself.

Participant 1:

I feel that health providers have done well in educating people about the connections of being overweight to illness or pain. Realistic goals should be the next step. Everyone will not be a size 4 regardless of the amount of changes and exercises they may do.

Participant 3:

The way doctors approach the subject is important. You can't just tell someone that they or 30 – 40 pounds overweight and you better lose weight, that can be intimidating. Bedside manner is very important. Public Health and the medical field must realize that many times medicines are the causes of weight gain, not just because you're lazy or don't eat well. My question would be: Are the BMI calculations representative of all races or just of the dominant one?

Review and Synopsis

The health provider remains at the forefront of the challenge of obesity. He must continue to educate and assist the patient seeking help with the setting of realistic goals. This assistance should be done with empathy and understanding, as the person is probably already dealing with issues of stigmatization due to being overweight.

Summary

The primary aim of this study was to focus attention on the perspectives of the African-American female minority which the CDC has labeled a leader in obesity incidences. African-American females are the most obese group statistically in the United States and it may be by choice. Many African-American women view having a larger frame as part of their culture, even toward leading to being routinely overweight. The African-American communities has labeled the so-called normal, lean body image as being skewed toward the unhealthy, while the larger framed sizes, especially with the females remains the accepted norm.

Even beyond cultural acceptance, the social element of the male counterpart preference was a barrier. Most participants felt that their male associate tended to prefer the larger sized, curvy full-figured females. With the addition of this facet of social acceptance to the already ingrained cultural dogma, African-American females' desire for acceptance tended to over-rule their understanding of the association being overweight and chronic illness.

Even families who desired to eat healthier still face the barrier of economic feasibility. There continues to be a strong correlation between low-income and obesity. The unavailability of healthy food choices in low-income neighborhoods is a constant issue and often the nearest supermarket is miles away. Subsequently, families in these neighborhoods are limited to lower end markets which provide very expensive and limited quality of foods. There was shown instances with some participants that the

developments of some newer communities, had received the public health message and have created neighborhoods that are more activity friendly.

The results of this study indicate that there are important gaps between clinical definitions and lay perceptions of obesity. Participants revealed a disconnect in this inquiry, when giving depictions of obesity between their knowledge and perception of obesity when compared to their health providers. Even though participants tended to understand that added weight often meant added health issues, that premise did not necessarily create an endorsement for healthy eating or exercise practices.

The effect of the environment:

African-Americans especially those of lower SES appear much more affected by their environment due to restraints of transportation and limited activity space. The lack of healthy food purchases will have more of an effect on available choices than in a more affluent area. Percentages from respondents in this survey indicate understanding of an environmental effect, even though most lived in in reasonably moderate residence areas.

The effect of culture:

Many African-American women interviewed viewed being overweight as part of their culture. A distorted acceptance of not having a lean body image which could appear in their eyes as unhealthy or even drug related was hinted in some responses. This thought process was compounded by the social inclination of black male's preference to thicker females. This cultural thought has African-American females fighting weight loss and slender women wanting to gain weight for acceptance. Understanding the effect of the environment and cultural influences on obesity as shown in this inquiry, could

provide information necessary to develop community-based prevention efforts and aid in developing future interventions to address this concern (Walls, et al, 2011; Pappas et al., 2007).

In Chapter 5, I will follow interpret the findings in Chapter 4; discuss limitations and recommendations for future research in this area. I will address implications for social change as indicated by the purpose of this study and whether or not a potential societal change of thought within the African-American community can be made through these findings.

Chapter 5: Discussion, Conclusions and Recommendations

Introduction

In this qualitative narrative design, I attempted to seek the perspectives among African-American females regarding the relationship between the environment and obesity. I selected African-American females for study because this demographic has one of the highest incidences of obesity within a subgroup population (Kumanyika et al., 2007; Ogden et al., 2010; CDC, 2015). Although previous studies have shown how minorities and others of lower SES have disproportionate incidences of obesity per population, few studies have focused on the perspectives of those involved. Understanding this disparity could help in the design and targeting of appropriate interventions (Ogden et al., 2010, McKinnon, 2010).

Minorities in the United States continue to have statistically the worse health outcomes and the incidences of obesity per a given population increases this statistic (Caprio et al., 2008; Fredriksen-Goldsen et al., 2013). The obesity epidemic which is present within the African-American female population has combined with the general cultural acceptance and approval of a large body frame to cause incident numbers within this population to remain high even with the advent of intervention strategies (Gaines, 2010; Kirby et al., 2012; Lynch et al., 2007). It is important that health education and modifications are stressed with this population to reduce the incidences of obesity and the associated chronic illnesses.

Barriers face the African-American female in the struggle with obesity. Ogden (2010) indicated that weight perception within the Black community is an explanation as

to why African-American females suffer from a disproportionate level of obesity as compared with other races. Gaines (2010) indicated that prior studies had shown a tendency of larger bodies as being acceptable particularly with African-American females.

Gaines (2010) further suggested that among families that desired to eat healthier, the economic feasibility of healthy food was a barrier. There continues to be a strong correlation between low-income families and obesity and this should be a focus for future health interventions (Novak & Brownell, 2011). The lack of healthy food choices in low-income neighborhoods is a constant issue especially when the nearest supermarket can be miles away. Subsequently, families in these neighborhoods are limited to lower-end markets which provide foods that are often expensive and of limited quality and nutritional value (Gaines, 2010; Corral, et al., 2011; Gustat, Rice, Parker, Becker & Thomas, 2012).

I discuss literature on obesity among minorities in Chapter 2, but few researchers offer perspectives from the view of the population involved (Caprio et al., 2008; Kumanyika et al., 2007; Zimmerman, 2012). Influences of diet, culture, socioeconomics and disparities are a few topics that have been discussed in literature. Populations of color along with those that are economically disadvantaged are disproportionately affected by obesity and researching this particular segment of the population could fill a gap in our understanding and intervention options (Kumanyika, et al., 2007; Puhl & Heuer, 2010; Walls, et al., 2011). I developed three research questions for this research study to query

perspectives from African-American females and create the themes representative of their views on the influences that sustain obesity.

Table 5

Themes Developed From Participant's Responses

Research question 1: Effect of the built environment	Research question 2: Current effect of present neighborhoods	Research question 3: Effect of culture, social familial environment
Restricted access	Safety issues	Unhealthy food preparation
Lack of food resources	Limited access for fitness	Influence of family
Food prices	Lack of walking trails	Work schedules
Convenience of fast food	Lack of provider guidance	Economic barriers
Limited mobility	Associated stigma	Glorified larger size
	Fast food options	Exercising versus hairstyles
		Eating for pleasure
		Male preference
		Social gatherings

Interpretation of the Findings

Research Question 1

How do African-American females feel that the built environment has effected and contributed to the obesity epidemic? There were 5 themes that helped answer this research question. The themes of access to resources and health providers and the themes of healthy food access and prices are joined as the studies linked them as mutual influences.

Restricted access to resources / health providers

Participants expressed that the built environment within their neighborhoods limited their choices for food and opportunities for physical activity. Gaines (2010) supported this opinion suggesting that African-Americans, especially females exercise less for various reasons to include barriers of time, childcare, and safety. The lack of maintained parks and sidewalks will limit opportunities for physical exercise. The built environment continues to play an important role in influencing obesity by creating a climate that promotes increased energy consumption while reducing energy expenditures. An understanding of the effect of the built environment could provide an understanding for research and the involved population as to the needs for a successful community-based prevention effort (Pappas, et al., 2007; Zimmerman, 2012; Walls, et al., 2011)

Nearly half of the participants emphasized that the design of the neighborhood (lack of supermarket grocers compared to a number of fast food restaurants) did influence whether they would use them. African-American neighborhoods also often have limited access to health providers with many receiving healthcare at emergency rooms. Unfortunately providers in these healthcare climates have little or no time to spend with patients for education or instruction concerning health issues. Most participants agreed that it should be a part of the provider's bedside manner to instruct and educate their patients concerning their eating habits and weight status. Eli et al., (2014) agreed that clinicians should communicate with their clients about obesity and how to address any social stigmas accompanying it. Caprio et al., (2008) indicated that SES was a factor in

the influence of obesity, as often SES determined where a population resided often causing limited access to needed resources. This theme of limited access was found in other studies as authored by Kumanyika et al., (2007), Booth et al., (2005), Sallis et al., (2012) and Gustat et al., (2012). These studies collaborated on the influence of limited access to resources due to the built environment.

Healthy food pricing/ convenience of fast foods

When comparing healthy foods to fast foods, pricing and convenience were major reasons for the decisions that were made. Better than 50% of the participants agreed with the convenience of fast foods for purchase when compared to the quality and or quantity of healthy choices. Pappas et al. (2007) indicated that the association between obesity and the built environment was more evident with poorer or socio-economically challenged populations, who seem to be more affected by the limited activity space and transportation choices. The participants stressed the convenience of fast food and how they were often the preferred choice of the families. Kegler, Escoffery, Alcantara, Ballard & Glanz (2008) in a comparative study of middle-aged black and white subjects, reported that even with a desire to purchase healthy foods for their families, the barriers of cost and the need to commute to a larger town or area for better choices was ever present and determined their decisions. James et al., (2006), Booth et al., (2005) and Kirby et al., (2012) presented themes of limited healthy food options as having inputs for obesity among the African-American population due to socioeconomic position and the maintenance of an obesogenic environment.

Limited mobility without vehicle use

Dependent on the layout of the neighborhood, having access to a vehicle or having to depend on public transportation could influence whether you can get to markets or health providers that are not in close proximity. This barrier caused by the environment can influence health by restricting proper nutrition and healthcare. Pappas et al., (2007) related that concept of accessibility to areas that could provide options of physical activities combined with the determinant that defines travel choices could affect dietary and health behaviors. Most participants expressed the understanding that limited access to food sources and physical activity could be hampered by the need to travel outside of the neighborhood to reach areas that could supply them. However, most of these same respondents stated that where they presently resided the commute was reasonable. Gustat et al., (2012), Kirby et at al., (2012) and Gordon-Larson et al., (2006) presented studies that were in agreement with this theme of access due to mobility as it continued the discussion of limited access due to the built environment.

Research Question 2

What are the perspectives of obese or overweight individuals on how the current environment with respect to neighborhood help or hinders obesity intervention efforts? Five themes were developed to help answer this research question. The themes of limited access for fitness and walking trails are combined. The theme of fast food options which was also discussed in addressing this research question was detailed under RQ 1.

Safety concerns

Only a few participants stated a real concern for safety within their neighborhood. Their response appears indicative of the residential areas that most of the participants were from. Participants agreed that having lighted areas for physical activity and the presence of walking paths would have an effect on the amount of physical activity. Garip and Yardley (2011) in their study did not agree with the findings. Their study identified a major environmental barrier especially within urban communities that indicated that safety concerns were a barrier that would decrease or limit outside physical activity. This differing of opinion suggests that dependent on the population surveyed and their residential area, their opinions on safety can also vary. Kegler et al., (2008) and Gustat (2012) indicated that views on safety should include not only crime possibilities, but also traffic and loose dogs. This issue is also addressed by Miles and Panton (2006) and Sallis et al., (2012) who stressed the influence of safety concerns and helping to answer RQ 2.

Limited access to areas for activity or exercise

Low-income, unstable living conditions and environmental limitations of this description will contribute to infrequent exercise and physical activity (Charleswell, 2014). Participants stressed an understanding that limited access within certain neighborhoods could affect physical activity. Although most participants suggested their neighborhoods had been designed for activity, they had previously lived in areas that were not. Charleswell suggested that certain urban neighborhood have limited financial support for improvement designs and rare accessibility for gym memberships and that could be linked to an unsupportive built environment developed with poor planning and

inadequate housing. Caprio et al., (2008) indicated that there was a significant link between the built environment design and limited access to physical fitness areas. There were participants that stressed how limited access in their area affected physical activity with lack of access to gyms and fitness areas which was in agreement with prior studies.

Lack of provider guidance or education

Participants indicated that health providers could encourage people by helping establish realistic goals and helping African-American females to understand that realistically not everyone can be a size 2 or 4 regardless of the amount of diet or exercise. Providers could justify to their clients why weight loss is needed and any associated consequences of being overweight. Martin et al., (2008) indicated that since more that 75% of adults visit a physician annually, they can play an important role in reducing the morbidity and mortality associated with obesity. Physicians could deliver tailor-made weight intervention methods to address barriers of weight loss by use of the healthcare system, employing an already established rapport with their patient and offering tailored recommendations specific for that patient and her circumstance (Martin et al., 2006, Haas, Moore, Kaplan & Lazorick, 2012, CDC, 2015).

Most participants agreed that encouragement and education from the healthcare provider that they trusted would be important in helping their patients to make needed changes in their lifestyles and diet. Garip and Yardley (2011) in support of this view emphasized that physicians should encourage lifestyle interventions to their patients rather than focusing on criticism, as these providers would be viewed as a legitimate source of education and motivation. Health professionals by providing an encouraging

environment and personalized advice to their clients could create a design for successful weight management (Arp, 2007; CDC, 2015; Karnik & Kanekar, 2012). Novak and Brownell (2011) suggested that health providers could improve the health of the population they serve by also being educators for them.

Associated stigma

Stigmatizing experiences from family, friends and even healthcare professionals hinder overweight persons from attempting physical activities or weight reducing measures in public (Garip & Yardley, 2011). Fogel and McPherson (2009) and Fredricksen-Goldsen (2013) in related studies showed the influence of stigma causing non-acceptance of weight loss efforts among self-identified lesbians. Negative stigma stemming from criticism can block participant's willingness to address weight loss. Participants in this study indicated that the cultural acceptance of a larger frame most likely came from a self-developed protective measure from stigma. In an effort to move from an association of negative feelings to positive ones, terms like "big-boned", "juicy" and or voluptuous were developed as more acceptable terms as compared to "chubby" or fat. As African-American females have become more comfortable with their size, they have become less enamored with the tall slender model types present on mainstream media (Gaines, 2010; Singal 2016). This cultural acceptance with this type distortion must continually be emphasized by health professionals as one with possible adverse health outcomes, but done without discrimination or stigma. The participants agreed that healthcare providers should justify why weight loss is needed and any associated consequences which could lead to better compliance.

Research Question 3

What do the participants view are the effects of the cultural, social or familial environment on weight gain specific to African-American women? Six themes were developed to answer this research question. Themes of unhealthy food preparation and influence of family, economics and work schedules, glorified larger size and male preference are combined as these themes tended to cross boundaries during the interview discussions.

History of unhealthy food preparation/ influence of family

The limited availability of food choices in the areas where African-Americans reside can compound the dietary factors leading to obesity. A majority of participants agreed that family and social gatherings were major influences to how food were prepared and served. Gaines (2010) indicated that the soul food tradition has historically been a culprit for obesity in African-American households with recipes passed down through generations. There is a strong social component with this style of food preparation that centered on opportunities for the family's matriarch to show love for her family. Participants agreed using endearment terms such as "MaDere", "Nana" or "Big Momma" to describe both the respect and love for the matriarch and her fine cooking, while over-looking her size. Food preparation was described as having a dynamic effect in social and family gatherings while being culturally acceptable and affordable. Caprio et al., (2008) and Zimmerman (2012) both indicated that food could be described as a developed cultural identity and a means of preserving family unity.

Traditions as observed in the preparations of soul food even with the additions of salts, fats and sugars were deemed superior and more desirable to fast foods and described healthy choices by participants. Most participants agreed that culture did have a major influence on weight gain due to cooking methods and that generally this was the family's preference. Kirby et al. (2012) indicated that the involvement of social mores and customs can play significance in population weight gain. The role food plays in the African-American culture has a strong social component but the traditional preparations of foods has only exacerbated the obesity epidemic (Gaines, 2010).

Barriers of economics and work schedules

Pappas et al., (2008) and Sallis et al., (2012) in related studies indicated that participants stressed two common reasons for not being physically active: schedule conflicts and lack of time and opportunity. Lynch et al., (2007) collaborated, specifying that their study identified barriers that included decreased time remaining after fulfilling work, family and social obligations. Limited resources can place restrictions on choices of food which invariably could be stressed as more important than fitness center memberships. Participants in this study, especially single parents, indicated that money was especially a barrier for healthy food purchases or fitness memberships. Time was also mentioned as an important barrier as many participants were involved with family and civic activities often after work schedules that severely limited any time for physical activity. Caprio et al., (2008) indicated since that the African-American female primarily assumes the role of caretaker for the family and especially the children, time is often limited that could be devoted to physical activities.

Glorified larger size/ male preference

Lynch et al., (2007) expressed in their study that most participants indicated that their female relatives were consistently of a larger size and mirroring this image gave them a sense of belonging. The term "big girl" was affectionately used by several participants especially in the realm of romance. The general cultural acceptance of weight and the absence of pressure to lose weight and become thin could both liberate and empower African-American females, but also places them at a greater risk for obesity and its consequences (Charleswell, 2014).

In this study, the majority of participants agreed that African-American females do not feel that they are "that" overweight and attribute opinions on this matter to their being compared to other smaller races of women. As a general sentiment, the African-American community does not encourage weight loss, but tends to encourage women to look healthy and thereby accepting being overweight (Gaines, 2010; Swinburn, 2008). African-American males unfortunately have enhanced this way of thinking as the general opinion is that they prefer larger women and are more attracted to them (Gaines, 2010). Gaines' study pointed to the preference of African-American for the more curvy overweight females as compared to the more normal or slender females suggesting that this cultural perspective is true.

Summary

In the African-American community, there is a strong tendency to deem larger body types as being accepted as normal especially in females (Gaines, 2010; Altabe, 1998). This cultural acceptance and perceived male preference has thicker women

fighting weight loss and slender women wanted to gain weight for acceptance. This may account for the CDC's statistic showing 4 out of 5 African-American overweight to obese and that these females are making a choice to live at an unhealthy weight (Gaines, 2010). Participants in this study agreed that culture, whether it was the way food was prepared or the overall acceptance of larger sized females were causes for increased incidences of obesity within this population. Time, finance and economics were offered as barriers to weight loss as the needs and fiscal responsibilities of the family unit super-ceded buying healthy products or other interventions.

Research question 1 focused on the built environment and the influence of neighborhoods as viewed from the participants. Although most of the participants in this study were mobile working class females and generally less affected by their environment, most did understand the link between the built environment and obesity. The response to the barrier of the environment was lower than expected but this seemed to be due to the status of the participants that were surveyed.

Research question 2 dealt with the effect of the present neighborhood on weight loss interventions. The built environment produced barriers of access due to the lack of parks or areas developed for physical activity. Even though many participants were now residents of areas that were developed to accommodate physical activity, they also understood that some areas, especially urban ones, did not offer such amenities or safety.

The need for healthcare providers to play a role in weight loss interventions was discussed. The participants indicated that providers would have a unique ability to educate, inform and direct their clients proving a valuable resource. Eli et al., (2014)

argued that although healthcare providers and lay person's definition of being overweight did not always agree, the providers should take the fore-front on advising their patients on the possible adverse outcomes of being overweight and offer advice on how to avoid such health risks.

Limitations

There were several limitations to this study. First, the participants were all middle-class working females living in suburban areas. This fact could lessen the effect of the built environment. Barriers such as unsafe conditions, lack of parks or areas for physical fitness are for the most part are eliminated with newer suburban areas. Also since most of the participants were mobile and able to commute wherever they needed to go, they were less bound by transportation requirement needs that may be encountered with urban built environments.

Second, since this particular group of participants was well-educated, with most having some college education, socio-economic issues were of a lessened effect with education leading to better jobs, better social circumstance and better residences. Kegler et al. (2008) and Sallis et al., (2012) indicated in their studies, that neighborhood determinants such as sources of physical activity and nutrition are largely dependent of the neighborhood involved and verifies the fact that the results of studies of this type could be skewed by the residential location of the subjects. This inquiry as presented was limited by not asking the participants to detail their neighborhood or environment. Inclusion of these type details could describe if this built environment would have a direct influence on the residents. James et al., (2006) indicated that women from

impoverished backgrounds had obesity incidences at twice the level than those from more advantaged ones.

Third, in this study, I utilized a relatively small sample size that could limit generalization to a larger group or population. Motivations for weight loss could be another issue. Even though motivations for weight gain were discussed in the study, Lynch et al., (2007) indicated that motivations for weight loss could be radically different. The same family members that seemed to support weight gain through social or cultural acceptance could be detrimental in weight loss attempts. Negative inputs such as drug addiction or illness could derail weight loss by adding stigma or concern.

Implications for Social Change

In this study, there are positive social change implications for African-American females both in social and behavioral aspects. This focus that presented their perspectives on the reasons for higher obesity incidences within their population not only stressed their opinions, but offered an educational tool for change. By incorporating the tenets of the social cognitive theory and the transtheoretical model, behavioral principles that target constructs such as self-efficacy, motivational readiness for change, social support and realistic goal settings are addressed (Gillison et al., 2015; Martin et al., 2006)

Pappas et al., (2007) and Greener et al., (2010) indicated that a participant's understanding of the possible built and cultural environments inputs to their health would empower them to stress the need for culturally specific community-level obesity prevention programs in their communities. Support for this type of inquiry could address the issue of culture and attitudes in relation to weight. Lynch et al., (2006) argued that

even with the presence of similar inquires; few still provide in-depth reviews of African-American perceptions about weight loss and barriers to it. Continued studies of this type could uncover these and other perceptions and offer the development of tailored interventions and also empower participants the impetus to do what they can to improve future health (Walls, et al., 2011, Lynch et al., 2006).

Recommendations

As the gap in the knowledge of the concerns of obesity continue to widen within the African-American community, it is prudent that the healthcare providers and community leaders step up to address it. Further research such as this study is needed to understand why the African-American culture is associated with higher body weights and why there is a cultural acceptance of this factor. Kirby et al., (2012) indicated that an understanding of this factor could lead to better tailored and accepted intervention strategies.

The environmental influence of obesity is a second factor. The environment has created barriers both socially and physically to sustain obesity in both urban and rural neighborhoods. Yancey et al., (2004) argued that even though an intervention or study with an environmental context is needed, its constructs may limit behavioral approaches necessary to reach African-American females at the highest risk. There remains a need for studies that will focus not only on weight loss and conditions for it, but for weight loss behavioral management strategies.

Finally, weight loss management education is a must in order to break the chain of the weight-loss, weight-re-gain cycle. In this chapter, I referenced how health-care

providers in a primary setting could be a positive instructive and preventive measure for obesity with their patients. Pappas et al., (2008) and Greener et al., (2010) indicated that management of overweight patients by their primary care providers proved beneficial for weight loss management over an extended period. The education of these patients can be the beginning of a positive social change to slow the advance of the obesity epidemic (Greener et al., 2010; Dingfelder, 2013).

Conclusions

African-American females face a variety of barriers affecting their behavior and attitudes concerning weight loss. It is important that research inquiries addressing this concern are aware of these issues. Whether it is the barrier of the built environment or seeking social acceptance, African-American females continue in a struggle in the fight against obesity for health.

Garip and Yardley (2011) indicated that there remained a need to identify and address barriers to weight loss from the viewpoint of overweight people. An understanding of the experiences of overweight African-American females and the influence of the cultural and social environment can help improve current interventions and offer support in weight management efforts. It is important to understand the role that the environment plays in influencing behaviors as the built environment can have a dynamic role as a barrier for access to physical activity and healthy food purchases (Pappas et al., 2007; Gustat et al., 2012; Sallis et al., 2012).

In this study, I emphasized the presence of a possible disconnect between knowledge and perception with providers and their clients concerning weight. Eli et al.,

(2014) indicated that a collaborative effort is needed between healthcare providers and community leaders to examine barriers to weight control. Those working in the field of healthcare have the expertise to address health effects associated with obesity, while the leaders can address areas of need and access with their communities. Working together, they could educate and empower the community toward the needed health and social change.

HEAR YE! HEAR YE!

THIS IS OF THE UTMOST IMPORTANCE!
THERE IS AN EVIL APPROACHING AND IT'S TRYING TO DESTROY OUR WOMEN!!

WHO??
IT IS THE BAD MEN OF THE OBESITY EPIDEMIC
AND THEY'VE VOWED TO FINISH THE JOB THEY'VE STARTED!!

ITS GONNA TAKE A COMMUNITY EFFORT TO STOP THEM!!
BUT WE'VE GOT HELP THIS TIME!!

A NEW SHERIFF FROM THE PUBLIC HEALTH DEPARTMENT OF WALDEN UNIVERSITY IS HERE TO HELP US!!
FOR DETAILS:
ATTEND THE LOCAL COMMUNITY FORUM AT THIS FACILITY AT THE TIME AND DATE POSTED.

***Figure 2*: Posted Announcement**

References

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Appendix A: Sample Questions

This appendix will present a sampling of questions posed to volunteer female participants for their input on this inquiry. Crawford and Ball (2002) indicated that even though there was a consensus between environmental factors and the influence of energy intake and expenditure, it was important to recognize how obesity related behaviors could differ within cultural groups. The questions of inquiry will be formatted as such to specifically answer the research questions.

Standard question:

Do you consider yourself an African-American or of African-American decent? This question will be posed for demographic analysis, since the focus is on the perspectives of African-American women. The questions following will be offered to receive a response to the research questions.

Research question 1:

How do African-American females feel that the built environment (i.e., the social and physical elements), has effected and contributed to the obesity epidemic?

What are your thoughts on how the surrounding environment within your neighborhood might impact a person's weight?

Do you think the way your community is set up or built effects physical activities such as walking or a daily commute?

What are your perspectives on how social expectations affect a person's weight?

Have friends and family been supportive whenever you've attempted weight loss?

Research question 2:

What are the perspectives of obese or overweight individuals on how their current environment with respect to neighborhood or social inputs helps or hinders obesity efforts?

What are your feelings on how your current environment helps or hinders your efforts to control your weight?

Are functions available for you within your community or church that offer weight loss instruction and dynamics?

What are specific facilitators or activities that in your neighborhood or life that you feel leads you to eating more and paying less attention to weight control?

Are their specific barriers in your neighborhoods that hinder you from shopping for fresh fruits and vegetables to include in your diet or participating in any physical activity?

Research question 3:

What do the participants view are the effects of the cultural, social or familial environment on weight gain that is specific to African-American women?

What do you feel are the effects of your inner circle of friends and family on your eating habits?

Do you feel that your family influences your diet and food preparation as it relates to weight control?

Does the stress of daily living influence your eating habits?

Appendix B: Letter to Request Volunteers

(Organization name)
(Address)
(Date)

To: (Organizational Leaders & Titles)

From: Rickey L. Ford
Dr. Cheryl Anderson, mentor
Walden University
School of Public Health

As a member of the Atlanta community, you are probably aware of the negative influence that the obesity epidemic upon our communities, especially on those that are of a large minority presence.

As members of Walden University Research, we feel that this issue is one that that deserves immediate attention. Communities, especially minority ones experiencing socioeconomic issues are even more needing of this information, as issues of this sort can only bolster the obesity epidemic.

The aim of this research is to recruit from organizations such as you, participants to share their ideas, concerns and perspectives on how the social, physical and cultural environment has dictated their lifestyles. Discussion concerns will include socioeconomic issues, proximity to healthy food sources, safety issues or other issues that you feel can influence obesity.

The Centers for Disease Control has specified that the African-American female is the leading minority for obesity instances and with her often being the major food provider and preparer, it signals an important minority with which to address initial concerns.

Goals of this inquiry:

- to bring attention to the growing plight of minorities and obesity,

- to offer information on how obesity affects social and physical health,
- to show how even slight changes in diet and physical activities can offer changes in future health.

The Walden University Research staff thanks you in advance for you kind assistance and participation in this worthwhile project.

Yours sincerely,

Rickey L. Ford, PH.D student
Walden University Research
School of Public Health

Appendix C: The Screening Questionnaire

(Introductory page for the reviewers, not to be shown to the participants)

The screening questionnaire will be designed to help in the selection process of the potential participants of this inquiry. The questionnaire will be designed to target and ultimately select participants that will fit the established criteria of this inquiry. The criteria will include: African-American female, lower to moderate socioeconomic position, at least 18 years of age, English-speaking and head of household.

The Screening Questionnaire

(Please circle the response that best describes your situation)

1) Do you consider yourself African-American?

a) yes
b) no
c) prefer not to answer

2) Is English your primary language?

a) yes
b) no
c) prefer not to answer

3) Is this area your primary neighborhood?

a) yes
b) no
c) prefer not to answer

4) How long have you lived in this neighborhood?

a) less than 2 years
b) 3-5 years
c) 6-10 years
d) more than 10 years
e) prefer not to answer

5) What is your age?

a) 18 – 34 years
b) 35 – 54 years
c) 55 – 74 years
d) 75 years or older
e) prefer not to answer

6) How many family members are in your present household?

a) 0 – 1
b) 2 – 4
c) more than 4
d) prefer not to answer

7) How many of those members are children?

a) 0 - 1
b) 2 – 4
c) more than 4
d) prefer not to answer

8) Do you consider yourself Head of Household?

a) yes
b) no
c) prefer not to answer

9) Do you rent or own the place where you live?

a) yes
b) no
c) prefer not to answer

10) What is your education level?

a) less than high school graduate
b) high school graduate
c) some college / associate degree
d) bachelor degree or higher
e) prefer not to answer

11) Were you born in the United States or another country?

a) United States
b) another country (where? _____)
c prefer not to say

12) How important is your race or culture to you?

a) very important
b) somewhat important
c) not important
d) prefer not to answer

13) How would you rate your neighborhood as a place to live?

a) excellent
b) good
c) average
d) poor
e) prefer not to answer

14) Do you feel that your neighborhood has gotten better or worse over time?

a) much better
b) slightly better
c) the same
d) prefer not to answer

15) How is the street lighting in your neighborhood after dark?

a) very good
b) good
c) fair
d) poor
e) prefer not to answer

16) Would you feel safe walking in your neighborhood any hour?

a) yes
b) somewhat
c) no
d) prefer not to answer

17) Do you have reasonable access to grocers in your neighborhood?

a) yes
b) somewhat
c) no
d) prefer not to answer

18) Does your grocer carry fruits and vegetables at a reasonable cost?

a) yes
b) somewhat reasonable
c) not very reasonable
d) not at all
e) prefer not to answer

19) Do you routinely partake in any physical activity?

a) yes
b) sometimes
c) rarely
d) no
e) prefer not to answer

20) Would your partake in more physical activity if you felt safe?

a) yes
b) perhaps
c) no
d) prefer not to answer

21) If you partake in physical activity, what do you do most?

a) walk
b) run
c) dance

d) prefer not to answer

22) Would you be willing to participate in a survey that might better your neighborhood?

a) yes
b) no
c) prefer not to answer

23) Are you aware of Public Health's concerns for overweight African-American females?

a) yes
b) no
c) prefer not to answer

24) Would you be willing to participate in an inquiry that could potentially create a better quality of life for African-American females?

a) yes
b) no
c) prefer not to answer

25) Would you participate if you knew the inquiry would be strictly confidential?

a) yes
b) no
c) prefer not to answer

26) Do you have access to a phone or Internet?

a) phone and Internet
b) Internet only
c) phone only
d) neither
e) prefer not to answer

Thank you for your time and cooperation in completing this survey.

Appendix D: Interview Questions

1. Do you consider yourself an African-American or of African-American decent?

2. When you are asked questions about weight loss, what specifically comes to mind?

3. How do you feel when you hear the word “obese”?

4. Why do you think the CDC has targeted African-American females as being one of the highest rated minorities for being over-weight?

5. What do you think could be some positive changes in your life if you lost weight?

6. If you felt that a friend was over-weight and it was affecting their health, what would you do?

7. Do you feel culture influences weight gain? How?

8. What are your thoughts on how the surrounding environment within your neighborhood affects weight gain?

9. Are grocery stores or fast food restaurants more prevalent in your neighborhood?

10. Do the available grocers in your area offer fresh fruits or vegetables at a reasonable cost?

11. Are the grocery providers within walking distance? If so, would you feel safe walking there?

12. Are health providers within a reasonable commute from your neighborhood?

13. What are your feelings on how your current environment helps or hinders efforts for weight loss?

14. Do you know of someone with a weight problem that’s been struggling to lose weight? Explain.

15. What do you feel are barriers to weight loss among African-American females?

16. Do you feel that the CDC is correct in suggesting that African-American females have a high proportion of over-weight members? Why?

17. How do you think these statistics are acquired? Do you feel the assessment is fair?

18. What do you think are the effects of your inner circle of family or friends on your eating habits?

19. How do you feel that this inner circle affects weight gain or loss?

20. Do you ever use food as a source of comfort or pleasure?

21. Have you or anyone you've known complained of physical concerns due to weight? Explain.

22. How can we as health providers help to encourage people to lose weight, particularly African-American females?

23. If being overweight can be tied to your present environment, what would you suggest be done to change it?

24. Public Health has suggested that culture is linked to obesity. Do you feel that this perception is correct?

25. What do you feel are significant barriers to weight loss for African-American females?

26. Does your significant other influence your ability to lose weight?

27. What would you tell a health provider is the best thing he or she could say to help you lose weight?

28. Are there issues in your life that make it difficult to lose weight? Explain.

29. Would you ever consider surgical methods to lose weight? Why or why not?

30. How much weight do you think you need to lose to be satisfied?

31. After hearing the information in this discussion forum, would you be willing to help enhance African-American female interest in weight loss? How so?