Socioeconomic barriers to overweight and obesity reduction among adults in Claiborne and Jefferson Counties, Southwest Mississippi

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Socioeconomic barriers to overweight and obesity reduction among adults in Claiborne and Jefferson Counties, Southwest Mississippi

by

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A dissertation submitted to the graduate faculty in partial fulfillment for the degree of

DOCTOR OF PHILOSOPHY

Major: Family and Consumer Sciences Education

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Iowa State University

Ames, Iowa

2010
DEDICATION

My dedication is extended to my husband, Jimmy, for his support and patience during this educational endeavor and to my parents, Earlie D. and Bessie M. Ragsdale, for teaching me, through demonstration, values of hard work and perseverance. I send a special dedication, in loving memory of my late daddy, who provided praise and encouragement for my accomplishments; played family games with me; took me to Sunday School and Church Services on Sunday mornings; made clothes for me; took his responsibility as family provider seriously; and provided a lasting impression for me in voicing his approval of my decision to become a teacher during my early years in college. My mother taught me the comfort of a calming presence. I dedicate this to my sons, Victor and Leonard, and daughter-in-law, Tiscia, for their unconditional love, support, and encouragement; Ruby, my mother-in-law, whose love, strength, and endurance taught me how to be a strong woman and to persevere even in times of trials; Melvin, my brother-in-law for providing support and assistance whenever needed; Other family members and friends who served as a support system for me during my studies; and my church family, Highway 61 North Bypass Church of Christ, for prayers and support on my behalf.

“I can do all things through Christ which strengtheneth me”

Philippians 4:13
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ABSTRACT

The study purpose was to explore socioeconomic barriers to overweight and obesity reduction relative to using healthy dietary behaviors and physical activity among African American adults residing in Claiborne and Jefferson Counties, Southwest Mississippi. Six focus groups, totaling 32 participants (9 men; 23 women), were conducted in the Department of Human Sciences at Alcorn State University. Analysis of focus group thematic development indicated barriers to overweight and obesity reduction surrounding low family income and education, high rates of unemployment and poverty, low neighborhood income and education base, race/ethnicity, and traditions. Study results can be used as an avenue to tailor overweight and obesity reduction interventions to the needs of African American adults who reside in the targeted counties.
CHAPTER 1. INTRODUCTION

Overview

“To be overweight in the United States is to be a member of the majority” (Fabricatore & Wadden, 2003, p. 67). Even more so, overweight and obesity are major health issues among adults in the United States, especially in Southwest Mississippi. The African American adult population is especially vulnerable to the pitfalls of overweight and obesity production in Southwest Mississippi. The problem is that success in curbing the alarmingly high and escalating prevalence of overweight and obesity among adults in the United States has been elusive (Stice, Shaw, & Marti, 2006), particularly in Southwest Mississippi. This ineffectiveness in promoting adult overweight and obesity reduction may be due, in part, to a lack of understanding of socioeconomics impacting overweight, obesity and related behaviors, particularly among African American adults in the South Mississippi population. Socioeconomic factors generally include household income and accumulated wealth, educational attainment, occupation, and neighborhood economic conditions such as neighborhood income and education.

Research problem

Evidence abounds that there is a high prevalence of overweight and obese adults in the United States’ general population (National Center for Health Statistics (NCHS), Centers for Disease Control (CDC), 2008; Crawford, Wang, Krathwohl, & Ritchie, 2006; Stice, et al., 2006). Nationally, the problem of overweight and obesity continues to grow at an alarming rate. Data from the 1999-2002 National Health and Nutrition Examination Survey (NHANES), conducted by NCHS, CDC, indicated an estimated 65% prevalence of adult overweight or obesity in the United States, representing a 16% higher rate than the age
adjusted overweight estimates indicated in the 1988-1994 HHANES III data. The 2003-2004 NHANES data indicated a prevalence of overweight and obesity among U. S. adults, age 20 years and over, at 66.3% and 32.2%, respectively. The 2003-2004 NHANES data indicated 65.7% for the prevalence of overweight and 32.95% prevalence of obesity in U. S. adults; age 20-74 years (National Center for Health Statistics, 2007). The 2005-2006 NHANES data, using measured heights and weights, indicate an estimated prevalence of overweight at 32.7 %, obesity at 34.3 %, and extreme obesity at 5.9% for U. S. adults 20 years and older (National Center for Health Statistics, 2008). Primarily, for body measurements and related health data for United States’ citizens, NHANES serves as the major source of data for the non-institutionalized population (McDowell, Fryar, Hirsch, & Odgen, 2005).

Stice et al. (2006) recognized the trend toward a sharp increase in the prevalence of obesity at a rate of 65% in 2004. Furthermore, Crawford et al. (2006) found a 40% increase in overweight and a 50% increase in obesity since the 1980s. Both the prevalence of and risk for overweight and obesity have reached epidemic proportions (Magarey, Daniels, Boulton, & Cockington, 2005; Polley, Spicer, Knight, & Hartley, 2005). According to Crawford, et al, approximately two-thirds of the adult population in the United States is either overweight or obese, with 50% of that number falling in the obese classification.

Obesity is not evenly distributed among states in our nation. At the local level, the prevalence of overweight and obesity in Mississippi is excessive (Kolbo, Khoury, Bounds, & Lee, 2007). Mississippi not only ranks as one of the poorest states in the nation, it also leads the nation in the prevalence of overweight and obesity (Trust for America’s Health Reports, 2007). For three consecutive years, the obesity rate has been over 30% among Mississippi residents (Trust for America’s Health Reports, 2007). Statistics from the Behavioral Risk
Factor Surveillance System Survey (BRFSS), an ongoing state-based, random-digit-dialed telephone survey of non-institutionalized civilian adults aged 18 years and older, indicated that 67% of adults in Mississippi were overweight or obese in 2006. Data from BRFSS further showed a national average of 62% for the prevalence of overweight or obesity. This indicated a higher percentage of overweight and obesity among adults in Mississippi than the national average for adults age 18 years and older. Weight classification by body mass index for Mississippi residents was 35.5% overweight and 32.6% obese in 2007 (CDC, BRFSS, 2007; Wang & Beydoun, 2007).

There is an uneven distribution of overweight and obesity within states as well as among states in the union. Research evidences an uneven distribution of overweight and obesity in the state of Mississippi. Southwest Mississippi takes the lead for overweight and obesity in the state’s population (Mississippi Hospital Association, 2004). Claiborne and Jefferson Counties, two Mississippi counties with the highest prevalence of overweight and obesity, lie in Southwest Mississippi. Jefferson County has the highest rate of overweight and obesity of any other county in the state and nation (Mississippi Hospital Association, 2004).

The impact of the high prevalence of adult overweight and obesity is devastating. As the prevalence of adult overweight and obesity increases, so does the accompanying high co-increase in the onset of serious obesity related medical and other health conditions. Research has shown the increased risk of cardiovascular disease, hypertension, certain cancers, and diabetes mellitus 2 in adults to be a direct consequence of adult overweight and obesity (Insel, Turner, & Ross, 2003). Furthermore, Stice, et al. (2006) found that “Obesity in adulthood results in an increased risk for future death from all causes, coronary heart disease, atherosclerotic cerebrovascular disease, and colorectal cancer, as well as serious medical
problems, including hyperlipidemia, hypertension, gallbladder disease, and diabetes mellitus” (p. 1). Lopez (2007) had similar findings in regards to cardiovascular disease and cancer risks and overall increased mortality being the health effects of obesity. According to Aldana, et al. (2005), approximately 70% to 90% of deaths result from serious overweight and obesity-related medical conditions. Deaths from overweight and obesity-related medical conditions occurring as a result of poor nutrition, sedentary living, and tobacco use are preventable.

Disparities have been found in the rates of overweight, obesity and chronic diseases among adult population strata (White, et al., 2004; DHHS; Carmona, 2003). According to White, et al., “particular subgroups of the population are more likely to be overweight or obese than others” (p. 1050) and have a greater risk of developing serious physical, medical, and psychological problems. Vice Admiral Richard H. Carmona, in his capacity as Acting Assistant Secretary for Health in 2003, remarked about the epidemic proportions of obesity at that time. According to Carmona, 2 out of 3 Americans were overweight or obese, indicating a 50% increase in overweight or obesity just from the preceding decade. Carmona (2003) also remarked that minorities overweight/obesity status were worse than the overall population in 2003 with 23% obesity in Hispanic Americans and 30% obesity rate in African Americans. Other research data indicates a 78% rate of overweight and obesity among African Americans and a rate of 75% among Mexican Americans, aged 60 years and older (Hedley, Odgen, Johnson, Carroll, Curtin, & Flegal, 2004; Klohe-Lehman, et al., 2006). Hedley, et al. and Zhang & Wang, (2004) found 70% of African Americans, 62% of Hispanic, and 49% of White women to be overweight or obese, overall.
Sharma, et al. (2004) reviewed data from the Third National Health and Nutrition Examination Survey (NHANES III) and found that rates of diabetes for African American adults was 1.6 times and Mexican Americans 1.9 times the rate of Whites with age-adjusted prevalence of overweight for African Americans at 31% in men and 49% in women. Mortality rates due to cardiovascular disease and cancer were found to be significantly higher in the African American population in comparison to other ethnic groups. Furthermore, Sharma and his colleagues’ study with NHANES III data on age-adjusted rates of death due to heart disease indicated 210 per 100,000 for African Americans, compared to 73 for Latinos, and 263 for whites. In addition, Sharma and his colleagues reported that the “age-adjusted cancer mortality rates in 2000 for men and women, respectively, were 343 and 194 for African Americans, 245 and 166 for whites, and 175 and 112 for Latinos (p.1873). Thus, race/ethnicity and gender matter as important variables in overweight and obesity status.

In addition to race/ethnicity and gender, disparities in overweight and obesity risks and prevalence can be attributed to other factors in the make-up of socioeconomic status. Research studies results indicate that program adherence, dietary self-sufficiency, psychological factors, and family environment are mediating variables influencing success with weight loss (White, et. al., 2004). Wrotniak, Epstein, Paluch, & Roemmich (2005) support the dietary self-sufficiency principle in suggesting the need for “adherence to specific weight loss strategies, such as staying within calorie ranges, limiting high-fat foods, and increasing physical activity” (p. 1089) for effective weight changes during interventions. It is important to test the effectiveness of these principles in reducing adiposity/BMI, and negative overweight and obesity-related conditions that overweight and obese adults face.
Research Problem Justification

The need to better understand and treat adult obesity, especially in high risk populations of Southwest Mississippi residents, is essential to effective weight prevention/reduction program planning and treatment practices. Adult overweight and obesity are counted among the greatest health and social ills in our society today. Obesity is now at epidemic proportions and an alarming public health issue across the United States. Not only is there a problem with the high prevalence of adult obesity itself, but the cost for obesity-related healthcare in Mississippi is staggering. This is particularly true for Southwest Mississippi. The rationale for preventing and treating obesity in the adult population seriously lies in its adverse medical consequences that can devastate families, especially those with low income and inadequate or no health insurance. Polley et al. (2005) assessed that overweight and obesity causes a significant strain on the family and public health budget with the yearly health costs of overweight to be approximately 10% of the family and public health budgets.

Following the pattern of national statistics, there is an uneven distribution of overweight and obesity among ethnic and racial groups in Mississippi’s population. From self-reported data, the highest prevalence of overweight and obesity in Mississippi was found to exist in African Americans, “with women of color being at higher risks for obesity” (Ogden, Carroll, Curtin, McDowell, Tabak, & Flegal, 2006). This makes African American adults especially vulnerable to the pitfalls of overweight and obesity in Southwest Mississippi.

The prevalence of overweight and obesity among adults in Southwest Mississippi is at levels that warrants concern. The focus on reducing and /or abating the problem of
overweight and obesity must be timely and aimed at the source for reducing the epidemic of overweight and obesity in this population. To this end, overweight and obesity in the adult population in Southwest Mississippi are important issues to focus on at this time. Targeting the battle at the adulthood level, beginning with the adult population in Jefferson and Claiborne Counties, will enact changes throughout Southwest Mississippi, the state of Mississippi, and the nation, in total. Targeting adult overweight and obesity requires assessment of socioeconomic barriers impacting the sample population. Stice, et al., 2006 considers the exclusion of assessing potentially confounding factors to be a major problem in many weight reduction interventions.

**Research Gaps on Socioeconomic Barriers to Weight Reduction among African Americans**

Although interventions have been initiated targeting overweight and obesity in the adult population, few studies have conclusively evidenced the effect of socioeconomics on the adiposity level, dietary behaviors, and physical activity levels of African American or other adults in Southwest Mississippi. Interventions targeted at helping adults overcome barriers and make the necessary lifestyle modifications to reduce adiposity and related co-morbidities are essential. Therefore, it is critical to determine the specific impact of socioeconomic correlates on adiposity levels, dietary behaviors, and physical activity patterns of adults in Southwest Mississippi, especially in the African American population.

Current overweight and obesity reduction interventions exclude socioeconomic factors that may be important in adults who reside in Southwest Mississippi, especially Claiborne and Jefferson Counties. These gaps in research on the effects of socioeconomics on the adiposity level, dietary behaviors, and physical activity patterns of adults suggest that
data on socioeconomic barriers to overweight and obesity reduction is needed. In addition, adults’ values, perceptions, and attitudes relative to health behaviors are needed. Before data on overweight and obesity prevention in adults can be translated into culturally sensitive, appropriate and effective health care practices, relevant challenges must be confronted. Because the African American adult subgroup in Southwest Mississippi is known to have high levels of overweight and obesity and related disease risks, it warrants priority consideration for public health research, practice, and policy at this time. The importance of examining key barriers interacting in research and health care planning is essential. In addition, there is a great urgency to give the issue of socioeconomics operating in overweight and obesity and related health behaviors in the adult population in Southwest Mississippi more prominence on the U.S. public health agenda.

**Research Study Use**

By examining the socioeconomic factors impacting the adiposity status, dietary behaviors, and physical activity patterns of African American adults, educators, researchers, policy-makers, and program planners can better understand the relationship between socioeconomic barriers and obesity risk behaviors. With this understanding, these stakeholders can better develop more effective intervention strategies to motivate improvements in dietary behaviors and increase physical activity levels in African American adults. This in turn will serve as a stimulus to curb the tide of excess adiposity (overweight and obesity) in the African American adult population in Southwest Mississippi.

**Research Study Purpose**

The purpose of this study is to explore socioeconomic barriers to overweight and obesity reduction relative to using healthy dietary behaviors and physical activity among African
American adults residing in two Southwest Mississippi Counties (Claiborne and Jefferson Counties).

**Research Study Questions**

In relation to the research study purpose, the overriding questions are:

1. Is there a relationship between the incidence of overweight and obesity risk factors and socioeconomics specific to African American adults in Claiborne and Jefferson Counties?
2. What do African American adults who reside in Claiborne and Jefferson Counties perceive to be socioeconomics barriers that affect their adiposity levels, dietary behaviors, and physical activity patterns?
3. What are values, attitudes, and perceptions that Claiborne and Jefferson County African American adult residents hold about overweight and obesity, eating behaviors, and physical activity? and
4. What intervention strategies are needed by Claiborne and Jefferson Counties’ African American adult population to promote overweight and obesity prevention/reduction behaviors?

**Research Study Objectives**

Objectives of the study are to:

1. determine the effects of socioeconomics on adiposity level of African American adults in Claiborne and Jefferson Counties, Southwest Mississippi;
2. determine the effect of socioeconomics on dietary behaviors of African American adults in Claiborne and Jefferson Counties, Southwest Mississippi;
3. assess the effects of socioeconomics on physical activity patterns of African American adults in Southwest Mississippi, and

4. determine effective strategies to use in developing weight reduction interventions for African American adults in Southwest Mississippi.

Research Study Assumptions

Assumptions and limitations are inherent in this study. Because these study results are based on perceptions and self-reported incidences of participants, it is assumed that responses to research questions and activities will be honest and complete. Another assumption follows that because environmental factors causing overweight and obesity include a lack of physical activity; high consumption of excess energy-dense food; low consumption of fruits and vegetables; and low fiber intake, determining socioeconomics specific to impacting the African American adult population will promote development of intervention strategies to motivate healthier lifestyle behaviors in that population.

Research Study Limitations

As with all exploratory research, limitations exist. The sample groups of participants will reside in Claiborne and Jefferson Counties. Therefore, the findings of this study will not support generalizations to a larger diverse population of overweight and obese African American adults or adults, in general. Furthermore, the nature of qualitative research does not tend toward making generalizations. In addition, the findings from this study of the African American adult subgroup in Jefferson and Claiborne Counties may be quite different relative to African American adults from different socioeconomic backgrounds.

Key Research Terms and Definitions

Key terms and definitions for this study include:
1. Adult – One who has attained maturity or legal age (The American Heritage Stedman’s Medical Dictionary, 2001, p. 21); For this study, adult refers to an individual age 20 years and older.

2. Body Mass Index (BMI) – A measurement of the relative percentages of fat and muscle mass in the human body, in which mass in kilograms is divided by height in meters squared and the result used as an index of obesity (The American Heritage Stedman’s Medical Dictionary, 2001, p. 107)


4. Obesity- The excessive accumulation of body fat leading to a body weight in relation to height that is substantially greater than some accepted standard; a BMI greater than or equal 30 or a body weight that is 20 percent or more above the recommended weight range in a height-weight table (Insel, Turner, & Ross, 2003, pp. 183; 272).

5. Overweight- A BMI greater than 25 but less than 30 or a body weight that is 10 to 20 percent above desirable weight or recommended weight range in a height-weight- table (Insel,, Turner, & Ross, p. 272).

6. Physical Activity- Movement of the body that uses energy (United Stated Department of Agriculture, n.d.).

7. Socioeconomic – Relating to or concerned with the interaction of social and economic factors (The Oxford Pocket Dictionary of Current English, 2009).
8. Umbilicus - The pit in the center of the abdominal wall marking the point where the umbilical cord entered in the fetus; belly button; navel (Stedman’s Medical Dictionary, 2000, p. 1906).
CHAPTER 2. REVIEW OF THE LITERATURE

Overview

In this study, socioeconomic barriers that hinder overweight and obesity reduction among adults, particularly African American adults, will be discussed. Factors in association with overweight and obesity status in adults will be explored including:

- Overweight and obesity prevention/reduction intervention targeting adults
- Overweight and obesity risk factors in adults
- Socioeconomics impacting adiposity status in adults
- Socioeconomics impacting dietary behaviors in adults
- Socioeconomics impacting physical activity in adults
- Summary

Overweight and Obesity Prevention/Reduction Interventions Targeting Adults

Interventions targeting overweight and obesity prevention and reduction in the adult population are vitally needed. A better understanding of factors causing overweight and obesity requires examining differences in dietary patterns, factors affecting food choices, and physical activity patterns among adults. Understanding of factors causing overweight and obesity in this diverse population will better enhance the probability of developing effective lifestyle modifications to reduce overweight and obesity (Sharma et al., 2004). Viewing adults as operating within a socioeconomic system and addressing problems associated with confounding socioeconomics is vital for more effective overweight and obesity interventions to become a reality. In addition, it is essential to adopt a holistic view and incorporate components to address the family’s socioeconomic climate in future weight loss interventions (White, et al., 2004).
Traditionally, the focus of treating adult overweight and obesity has been on individual weight loss, which has proven to be ineffective in reducing or abating overweight and obesity in the adult population (Johnson, Gerstein, Evans, & Woodard-Lopez, 2006). In addition, Johnson, et al. suggested that using a lifestyle perspective in targeting the socioeconomics operating within the populations as groups will promote the development of comprehensive strategies to improve their nutrition intake, such as meal preparation. Johnson, et al. further concluded that courses that teach skills for preparing quick and economical meals might be most beneficial to this population, as time constraints and cost were found to be the main barriers to home meal preparation. Johnson, et al. found home meal preparation to be correlated with a higher quality diet intake.

According to Klohe-Lehman et al. (2006), nutrition knowledge relative to reducing fat intake; adopting more healthful cooking methods; improving skills in label reading and meal planning; and reducing consumption of high-energy and high-fat foods is needed to stimulate dietary behavior and promote weight loss. Furthermore, Klohe-Lehman, et al. found that nutrition knowledge was the determinant of dietary change, and those participants who made two or more dietary changes had greater nutrition knowledge scores. African Americans, in this study, were found to have made the greatest gains.

Klohe-Lehman and colleagues (2006) based their weight-loss program on concepts of the Social Cognitive Theory to achieve weight-loss behavior change “because it is generally regarded as a successful method for promoting health behavior change” (p. 68). The Social Cognitive Theory attributes health behaviors to a dynamic interaction between a person’s environment, behaviors, and cognitions. Thus, change in either environment, behaviors, or cognitions may alter health behaviors (Klohe-Lehman, et. al, 2006). Klohe-Lehman and
colleagues incorporated the Social Cognitive Theory constructs into their weight-loss program to “improve knowledge (cognition) of general health and nutrition and facilitate practice of behaviors (behavioral capability). Klohe-Lehman and colleagues found that the Social Cognitive Theory promoted healthful changes in diet and activity for weight loss in mothers by stimulating them to change their eating environment.

Klohe-Lehman and colleagues incorporated such Social Cognitive Theory constructs into their weight-loss program curriculum as “enhancing knowledge and skills needed to lose weight (behavioral capabilities); increasing confidence and overcoming barriers to healthful eating and exercise (self-efficacy); behavior role modeling by peers (observational learning); goal-setting, self-monitoring, and decision making (self-control); providing rewards and incentives for meeting goals (reinforcements); improving the healthfulness of foods served in the home (environment); correcting misconceptions and improving the anticipated outcomes of weight loss (expectations); enhancing the value placed on weight loss (expectancies); and learning strategies to deal with emotional stimuli and stress (emotional coping responses)” (p. 68).

The Social Cognitive Theory emphasizes the use of multiple avenues for behavior change that can be easily tailored to the needs of low-income adults in response to related psychosocial factors and intrinsic/extrinsic motivators (Klohe-Lehman, et al, 2006). Klohe-Lehman and colleagues proclaimed the Social Cognitive Theory to be an effective theoretical framework for designing weight-loss interventions for low-income mothers. Thus, Klohe-Lehman and colleagues acknowledged that factors other than nutrition knowledge appear to contribute to successful weight reduction in the population of low-income mothers, such as psychosocial factors and intrinsic/extrinsic motivations. These factors or motivators include
social support; depression; stress; self-efficacy; body image; and attitudes toward nutrition and weight loss.

Other researchers have found a strong promise to use the Social Cognitive Theory to promote a wide variety of health behaviors, including weight loss behaviors such as physical activity (Keller, Fleury, Gregor-Holt, & Thompson, 1999). Keller and fellow researchers found, from a systematic review of 27 research studies using the Social Cognitive Theory constructs to enhance physical activity initiation and maintenance, “a statistically significant relationship between the construct of SCT, self-efficacy, and physical activity” (p. 1).

**Overweight and Obesity Risk Factors in Adults**

Overweight and obesity results from an imbalance between food consumed and physical activity (DHHS, 2004; Larson, Perry, Story, & Neumark-Sztainer, 2006). National data indicates a pattern of increased calorie consumption by adults without an increased physical activity level (DHHS, 2004; Larson et al., 2006). Obesity is further described as “a complex chronic condition that involves the interaction of multiple factors including genetic, metabolic, physiologic, environmental, psychological, behavioral, and social conditions” (Flore, Travis, Whalen, Auinger, & Ryan, 2006). Further indications by Flore, et al. are that primary, endogenous causes of obesity including genetic, hypothalamic, or endocrine syndromes are rare and account for less than 10% of all cases, while nonendogenous obesity accounts for the major portion at more than 90% of obesity cases. Basically, Flore, et al. agree that obesity develops from an imbalance between energy intake and energy output.

Other researchers conclude that the issues of overweight and obesity comprise a highly complex nature involving lifestyle, environment, and genes. Therefore, the complexity of overweight and obesity incorporates interactions of many underlying factors that have
been linked to the increase in obesity (DHHS, 2004; Larson et al., 2006). Environmental and lifestyle factors linked to the increase in obesity include increasing portion sizes; eating out more often; increased consumption of sugar-sweetened drinks; increasing television, computer, electronic gaming time; changing labor markets; and fear of crime, which prevents outdoor exercise (DHHS; Larson et al.). Aldana et al. (2005) also found excessive television viewing to increase risk for overweight and obesity. Polly et al. (2005) further assessed that overweight is promoted by television viewing in that television viewing replaces physical activity and increases consumption of high-energy foods. Thus, socioeconomics hosts an interplay of environmental and lifestyle behaviors that lead to overweight and obesity.

Hart, Tinker, Bowen, Longton, and Beresford (2006) also found socioeconomic factors to be correlates to dietary intake. Correspondingly, Vanwormer, Boucher, & Pronk (2006) found that the majority of United States adults do not consume an optimal diet. Approximately 20% of adults in the United States eat the recommended daily amount of fruits and vegetables as outlined in the Dietary Guidelines for Americans and 60% eat too much dietary fat. Increased dietary fat intake is a serious hindrance in the prevention and management of the overweight and obesity and related co-morbidities (Vanwormer, et al.). In general, Aldana, et al. (2005) found that 77% of the United States population does not consume a healthful diet and 78% of the United States population is at elevated health risk because of inadequate physical activity.

**Socioeconomics Impacting Adiposity Status in Adults**

Polley et al. (2005) assessed the prevalence of overweight in African-American and Native-American families and examined correlates of childhood obesity in families in Oklahoma. This study indicated that there was a higher prevalence of overweight and obesity
in African Americans and Native-Americans than in Whites. African Americans, especially as a group, are known to be at an increased risk for obesity (Engels, Gretebeck, Gretebeck, & Jimenez, 2005). Lopez (2007) also found ethnic and racial minorities to be at higher risk for obesity. In fact, data from Lopez’s study to explore neighborhood environmental factors associated with obesity in adults in Massachusetts showed that for every 1% increase in percentage of residents, there was a 0.539% increase in obesity risk for African Americans and a 0.717% obesity risk increase for Hispanic residents.

Perception of weight/adiposity status has been described as a socioeconomic risk factor for becoming overweight or obese in diverse populations, especially in the African American population (Sherry et al., 2004). Sherry et al. found perceptions that individuals and groups hold regarding weight status play a significant role in the overweight and obesity status within those populations. Some populations, including African American adults, hold a distorted view of weight status. Therefore, the level of weight/adiposity perceived as normal vary along socioeconomic and cultural lines. Because of the distorted view of weight status, African Americans may view overweight as being at normal weight levels. Similarly, Stice et al. (2006) found overweight and obesity to be less stigmatized with less body dissatisfaction for certain ethnic groups, especially African American women.

Another socioeconomic rooted factor that increases the risks of overweight and obesity in the African American women population subgroup is the incidence of live births and method of infant-feeding. Klohe-Lehman, et al (2006) found a 60% to 110% increase in the risk of becoming overweight for women who have had at least one live birth. Postpartum weight retention is linked to the method of infant feeding, due to the possibility of breastfeeding protecting against weight retention (Kac, Benicio, Velasquez-Melendez,
Valente, & Struchiner, 2004). However, the rates of the breastfeeding practice have been found to be typically lower in African American women and low socioeconomic populations (Li, Darling, Maurice, Barker, & Grummer-Strawn, 2005).

According to Vanwormer et al (2006), the quality of the diet has a profound effect on overweight and obesity rates. Poor diets lead to overweight and obesity. Thus poor diets, especially with increased dietary fat and calorie consumption, cause most of the deaths in the United States. These death results from the world’s deadliest chronic diseases including heart disease, diabetes, cancer, hypertension, and dyslipidemia (Mokdad, Marks, Stroup, & Gerberding, 2004).

As indicated by research, the African American population subgroup, in particular, is consumed with overweight and obesity risks (Hedley, et al., 2004). Furthermore, Hedley, et al.’s research data indicates a trend in African Americans having the highest rate of overweight and obesity than any other racial/ethnic population, and are more likely to suffer cardiac and metabolic disorders such as diabetes, and other obesity-related chronic health problems, especially African American women. African American women have a significantly higher risk and prevalence of overweight and obesity when compared to non-Hispanic White and Mexican American women (Hedley, et al., 2004). In a comparison of non-Hispanic White, non-Hispanic Black (African American) and Mexican American women aged 20 years or older, Hedley et al. found the lowest prevalence of obesity (30.7%) in non-Hispanic White women and the highest prevalence (49.0%) in non-Hispanic Black women, placing the prevalence of obesity for Mexican American women between the other two populations at 38.4% from 1999-2002. Currently, among adults of both genders, appropriately 30% of non-Hispanic White adults, 45% of African American adults, and
36.8% of Mexican Americans were found to be obese (DHHS, 2007). Kolbo, et al., (2007) also found that weight-related risks for health depended on race, and other factors related to socioeconomic status. Kolbo et al. further assessed that African Americans comprise a population most at risk.

Lopez (2007) found increased age to be associated with increased BMI and increased likelihood of obesity. According to Whitney and Rolfes (2008), “two-thirds of older adults are overweight or obese” (p. 598). Johnson, et al. (2006) found overweight or obesity in 70% of Americans aged 60 years and older, with even higher numbers (78%) in non-Hispanic blacks and Mexican Americans (75%) in the same age group. Lopez (2007) and Johnson et al. (2006) proposed that older adults have higher prevalence of obesity because they commonly gain weight throughout most of the adult life. The Center on an Aging Society (2003) reported that of the 15 million older adults in the United States, approximately one in four between the ages of 51 to 69 years are obese. In addition, data from the Center on an Aging Society provide implications that the prevalence of obesity in older adults may be much higher in the future. However, Howarth, Haung, Roberts, & McCrory (2005) reported an age-related decrease in BMI after approximately age 60 years.

According to Lopez (2007), Stice and colleagues (2006) and Wang and Beydoun (2007), adult females generally are at greater risk for obesity than adult males. Lopez further acknowledged that “women of color,” in particular, have higher obesity risks (p. 2111). In addition, from a meta-analytic review of obesity prevention programs, Stice, et al. found indications from most studies that obesity prevention programs promote greater weight loss in adult females than in adult males. When examining trends in the association between socioeconomic status in adults in the United States, Zhang and Wang (2004) found a
consistent increase in BMI for both genders, but a higher increase in weight was indicated in women than in men, averaging four points among women and two points among men. Data from Zhang’s and Wang’s study showed an increase of 16.4% at 10.6 kilogram (kg) mean weight in women, but only an increase of 9.5% at 7.5 kg mean weight in men from 1971 to 2000. Although most studies indicate a higher risk for overweight and obesity for women, Vitolins, et al. (2007) found that men consumed a higher level of discretionary calories (medium 5.3 servings) than females (3.3 servings) and scored 9.6 units lower on the Healthy Eating Index than women.

Lopez (2007) concluded that poorer people are generally more likely to be obese. Similarly, Kolbo, et al. (2007) found that weight-related risks are higher in lower income populations. In addition, other researchers have found that low-income families with mild and modest levels of food insecurity were at a much greater risk for overweight and obesity (Adams, et al., 2003; Hedley, et al., 2004; Zhang & Wang, 2004). In fact, the American Obesity Association reported that the rate of overweight for adult Mexican-American women living below the poverty line is about 13% higher than for those living above the poverty line. The household income of many African American families also fall below the poverty line, increasing the risk of overweight and obesity in that population.

Adams and colleagues (2003) and Townsend and Kaiser (2007) also found higher rates of obesity in low-income populations, contributed by consumption of higher-energy dense foods and food insecurity. Data from both of these studies indicate a positive association with food insecurity and the prevalence of overweight and obesity among women. Furthermore, Adams and colleagues (2003) reported the risk of obesity was directly correlated with the severity of the food insecurity in women of race/ethnicities other than
non-Hispanic White women and the prevalence of obesity was higher in White women who had food insecurity without hunger. However, in Adams, et al.’s study, the prevalence of obesity did not increase in Non-Hispanic White women as the severity of food security increased. Townsend and Kaiser did find a positive relationship between low-income food stamp recipients and excess body weight.

The “pervasiveness of obesity,” suggested by Klohe-Lehman, et al. (2006), particularly in low-income, minority mothers, indicated a correlation of income with adiposity levels (p. 65). Sherry, et al (2004) found that low-income mothers’ concern about weight is focused on underweight issues and tended to perceive overweight as normal weight status. While exploring maternal attitudes, perceptions, concerns, and practices related to child feeding and child weight, Sherry et al. revealed that approximately 20% of low-income African American and middle-income White mothers selected a schematic drawing depicting obese status as their boundary for defining overweight. Thus, the level of weight perceived as normal in this population of low-income African American and middle-income White adults is the level of weight that is classified as overweight or obese by the healthcare sector.

Hart, et al. (2006) described neighborhood income and education relative to a property or characteristic of neighborhood and environments, which is independent of personal resources. However, the interaction of neighborhood income and education status has been found to be a determinant of behavior affecting adiposity levels (Hart, et al). In addition, Lopez (2007) found some association between the presence of supermarkets or fast food density in Massachusetts adult residents, although the association was not significant at a level of 0.893. The effect of neighborhood income and education on the residents’ obesity
level is inherent in the resources provided residents in obtaining healthful foods and having safe access for physical activity.

Lopez (2007) concluded that less educated people are more likely to be obese. Kolbo, et al. (2007) assessed that weight-related risks were higher for populations with lower levels of education. A 2005 American Public Health Association (APHA) report indicated racial differences in the association between education level and weight change for middle-aged women at a significant level. Results of the APHA study of 2,019 middle-aged African American and White women to examine interactive effects of race on three levels of education and changes in BMI indicated no difference between the ethnic populations with a high school education or less. However, disparities became more apparent with increasing levels of education and African American women were found to be equally heavier at baseline and over the study period. White women in the APHA’s study increased in thinness as baseline educational attainment increased.

Wamsteker et al. (2005) studied the relationship between beliefs and chronic illnesses and found that interventions aimed at changing beliefs in personal control and about the course and consequences of illness are associated with improvement in physical and social functioning. This lead to the expectation that beliefs related to the cause, time line, controllability, and consequences of obesity would similarly predict the outcome of a dietary weight-loss program. Results reported from Wamsteker et al.’s study to investigate whether the beliefs of obese patients were predictors of their weight loss after an 8-week treatment with a low-calorie diet, indicated changes in weight, BMI, and waist circumference to be highly significant, with no significant difference between men and women. Wamsteker et al. further found a significantly higher attainment of weight loss in study participants who
perceived they were better able to control their weight, who did not attribute their being overweight to a physical origin, and who experienced more self-efficacy with respect to eating behavior. On the other hand, Wamsteker, et al. found poor self-efficacy, beliefs that obesity had a physical origin, and obesity was not under behavioral control to promote less weight loss.

In fact, Wamsteker, et al. (2005) found that more specific belief of self-efficacy with respect to eating behavior was a better predictor of weight loss than more general belief of obesity controllability. Thus, support to the idea that self-efficacy is a determinant of weight loss is provided. Furthermore, eating behavior self-efficacy, the belief that one is able to regulate eating behavior, is related to weight loss, eating habits and dietary behaviors, and dietary self-care. Wamsteker, et al.’s findings provide validation that assessments of self-efficacy are useful in intervention. The belief that behavior matters, is reflected by both self-efficacy and controllability (Wamsteker et al., 2005). Furthermore, Henry, Reimer, Smith, & Reicks (2006) found self-efficacy to be consistently associated with the stage of change and a vital element for achieving and maintaining dietary change in increasing fruit and vegetable intake in a variety of populations.

**Socioeconomics Impacting Dietary Behavior in Adults**

Hart, et al. (2006) viewed race/ethnicity as a socioeconomic surrogate in its relationship to dietary behavior. Hart and associates found African Americans, Hispanics, American Indians, and Alaska Natives to have higher fat intakes than Whites, Asians, and Pacific Islanders. Other studies have also shown higher fat intake in African Americans’ diets when compared to that of Whites (Gans, Burkholder, Risica, and Lasater, 2003).
Sharma, et al. (2004) conducted a study to determine the degree of adherence to the Food Guide Pyramid recommendations among ethnic minorities in the United States, including African Americans, Latinos born in the United States, and Latinos born in Mexico. The research found that the recommended servings of dairy products were not consumed by 61% to 99% of individuals in the three ethnic groups. Furthermore, the study results indicated that of the food groups, dairy recommendations were adhered to the least. In comparison to other ethnic groups in this study, data indicated that African Americans are less likely to adhere to all of the food group recommendations. Although the Food Guide Pyramid has been updated with MyPryamid as the current food guide, this study shed light on food choices of various ethnic groups and their tendency to follow recommended food guides. Because of this research data, Sharma et al. determined that African American adults and other adult populations studied would benefit from interventions designed to promote healthy food choices.

Sharma et al. (2004) studied adherence to food guides recommendations by ethnic minorities adults in the United States. A comparison of data about the degree of nonadherence to the Food Guide Pyramid recommendations from ethnic groups in a Multiethnic Cohort, including Japanese Americans, native Hawaiians, and Whites indicated that African Americans had a much greater degree of nonadherence to the recommendations. Specifically, 27% of Japanese-American men and 35% of Native-Hawaiian men did not adhere to the recommendations for grains, compared with 66% of African American men. For vegetables, 57% of African-American men did not adhere to the recommendations for vegetables, compared with 39% to 42% of male Japanese-Americans, Native-Hawaiians, and whites. However, the study found a smaller percentage of African-American and Latino men...
and women who did not adhere to the fruit recommendations (men, 46% to 54%; women, 34% to 43%) compared with Japanese-Americans, Native-Americans, and whites (men 59% to 64%; women 46% to 53%).

Data from Sharma, et al (2004) and Vitolins, Quandt, Bell, Arcury, & Case (2002) studies were aligned regarding African-American men consuming fewer vegetable servings than other ethnic groups, such as whites and Native-American. However, results of the two studies were contradictory regarding fruit intake among African American adults. Unlike Vitolins and colleagues, Sharma and colleagues did not find fruit intake to be less among African-American adults. Of course, fruit intake among African American adults may have been increased due to the many campaigns targeting increasing fruit intake in recent years. For all ethnic groups, the greatest percentage of people not adhering to recommendations was found for the dairy group at 65% to 100%.

The Food Guide Pyramid recommendations were under review for updating to reflect current science for nutrient adequacy and prevention of chronic disease at the time of Sharma and colleagues’ studies (Sharma, et al., 2004). Sharma et al. (2004) acknowledged “the purpose of a food guide is to combine recommendations for nutrient intake with a food group pattern appropriate for a given population. Thus, the Food Guide Pyramid recommendations were specially developed according to what is considered a mainstream United States eating pattern and specific ethnic foods, therefore, may not have been included (Sharma, et al., 2004).

Relative to age, Howarth, et al. (2005) found that low fiber, high fat diets contributed to higher BMIs in young and middle-aged adults in the United States. Many older adults have inadequate food and/or nutrition intake from low fruit and vegetable intake, leading to
inadequate vitamin and mineral intakes, and low consumption of milk and milk products (Whitney & Rolfes, 2008). “Familiarity, taste, and health beliefs are most influential on older people’s food choices. Eating foods that are familiar, especially ethnic foods that recall family meals and pleasant times can be comforting. People 65 and over are less likely to diet to lose weight than younger people, but are more likely to diet in pursuit of medical goals such as controlling blood glucose and cholesterol” (Whitney & Rolfes, p.608). Vitolins, et al. (2007) studied the diet quality of older adults, age 63 to 93 years, living in the rural south and also found that most participants failed to meet minimum Food Guide Pyramid recommendations for grains, fruits vegetables, and dairy products. In addition, Vitolins, et al. found that most of the older adults studied consumed excessive discretionary calories.

Stice, et al. (2006) found conflicting results in effects of obesity prevention programs relative to gender. Stice et al. found greater indications that programs promoting healthier dietary changes were more effective with females than males. Howarth, et al. (2005) found that a low-fiber, high-fat diet promoted the greatest increase in overweight and obesity risk in women, but only the percentage of energy from fat was associated with BMI in men.

The income level has been identified in association with eating behavior in adults. The resources available in regards to money available for food can affect food and eating choices (Hart, et al., 2006). From a national sample of approximately 3,000 American adults, Hart, et al. found that cost was placed second in importance only to taste as food choice consideration. Champagne et al. (2004) evaluated 24-hour dietary recalls of Lower Mississippi Delta residents (adults and children) and compared them with the national survey data on two income levels. Champagne and colleagues found that the percentage of Lower Mississippi Delta Region adult population in the highest income group studied ($30,000.00+
total household income) who met the Dietary Reference Intakes (DRIs) exceeded the lowest income group studied (< $15,000.00 total household income) by 7.3% to 15.8%, representing an intake difference exceeding 10% for 13 out of 15 nutrients by the higher income group.

Many adult consumers believe that it costs more to buy healthy foods, indicating that low-income status populations would not meet the recommended daily fruit and vegetable intake. Vitolins, et al., (2007) also found low income to be associated with risks of older adults living in the rural south consuming poor diets and having nutritional deficiencies.

Henry, et al. (2006) studied low-income African American mothers (average age 32 years) to determine the relationship between stage of change, and decisional balance processes of change, and self-efficacy for increased fruit and vegetable intake. Results of the study indicated that low income levels were associated with higher dietary risk behaviors, low consumption of fruits and vegetables, and for chronic diseases in this population. Klohe-Lehman, et al, (2006) also found non-adherence to dietary behavior in low-income, minority mothers. Other researchers provided detailed assessments of data relevant to factors affecting African American adults’ food choices (Henry, et al., 2006). Sensory appeal, familiarity and habit, social interactions, cost, availability, and time constraints were identified as factors influencing intake of fruits and vegetables. Barriers to increasing fruit and vegetable intake by African American women were identified as cost, poor cooking skills, lack of social support, and childhood eating patterns and availability, time and effort to prepare, and preferences for other foods (Henry, et al).

Studies have found a relationship between mean family income and dietary behavior. In their study, Morland, Wing, Diez Roux, and Poole (2002) used home values for neighborhood income instead of census tract data, and found a high relationship between
locations of supermarkets and/or grocery stores and neighborhood wealth. Although this study found that neighborhood income was related to the availability of supermarkets and grocery stores, it did not clearly indicate whether the availability of supermarkets were more important than neighborhood income in promoting unhealthy food intake. In a similar study, Hart, et al, (2006) did not find a relationship between the neighborhood-level income or education and fat intake, using the median neighborhood income to determine neighbor-level income.

Food deserts reports paint a distinctive picture about access to healthy and economically priced food in low-income neighborhoods (Lydersen, K., 2008; The Food Desert Website, 2007). Food desert is defined by the Food Desert website as “large and isolated geographical areas where mainstream grocery stores are absent or distant” (p. 1). According to the Lydersen, it can be a struggle to find fresh produce in low-income urban, particularly African American, neighborhoods across the country. Lydersen further explained that these food deserts exist “largely because major chain grocery stores have deemed it uneconomical to do business in these neighborhoods. Corner stores, ubiquitous in low-income neighborhoods, stock mostly processed packaged snacks, and smaller independent groceries often have sub-par offering, many past their peak” (p. 1). For example, Lydersen reported study results on tracking food access in Chicago and its suburbs showing that low-income communities lack access to full-service grocery stores in mostly African American neighborhoods. In addition, reports indicated that research from the Food Desert website “has demonstrated a statistical link between food deserts and worse diet-related health outcomes, after controlling for other key factors” (p. 1).
The income and educational level of the neighborhood is greatly entwined with overweight and obesity risk factors. Lopez (2007) conducted a multi-level study to determine neighborhood risk factors for obesity, indicating that more highly educated individuals had increased physical activity and lower levels of obesity risk behaviors.

Other research indicated a clear association between educational attainment and health behavior patterns, such as diet quality (McKay, Houser, Blumberg, & Goldberg, 2006). In fact, McKay and colleagues proclaimed “Education, more than any other socioeconomic factor, can predict disease risk, health behavior patterns, and diet quality” (p.1108). In their study to identify socioeconomic correlates of dietary fat intake in the Eating for a Healthy Life Study, Hart, et al. (2006) also found a decrease in fat intake to be associated with a higher education. These researchers suggested that more healthful food choices will likely be made by those who have a higher level of formal education. However, they acknowledged that “education is usually correlated with income” and income may possibly act as a “surrogate” for education (p. 1611).

One reason given for higher education promoting more healthful diets is because better educated people may get better nutrition information (McKay, et al., 2006). Furthermore, study data indicated that less-educated older adults rely upon different specific sources for their nutrition information than those who have a higher level of education, such as their doctors, television, and neighbors. In related research, low educational attainment was found to be associated with risks for consuming poor diets and nutritional deficiencies in older adults living in the rural south (Vitolins, et al., 2007).

Klohe-Lehman and colleagues (2006) studied the effect of greater nutrition knowledge vs. gains in knowledge on more successful weight loss in low-income,
overweight and obese mothers with young children. They concluded that “Lack of knowledge may contribute to the higher rates of obesity in economically disadvantaged people. For example, low-income caretakers with children were less likely to know about diet-disease associations, to use food labels, or to have low-fat eating habits than those with higher incomes” (p. 66). Therefore, greater initial knowledge was proposed to be possibly more predictive of weight loss in low-income adult populations than gains in knowledge during the intervention.

Self-efficacy or the judgment of one’s capacity to accomplish a desired effect, such as regulating one’s eating behavior is an important control belief for behavior modification (Wamsteker, et al., 2005). Wamsteker and colleagues report that health outcomes for obese individuals vary partly depending on the individual’s ability to make enduring dietary changes and respond to problems associated with a condition. In the course of life, individuals create their own beliefs of the conditions and the beliefs individuals hold basically primarily determine the outcome of diet interventions. Similarly, Stice et al. (2006) found that “internal barriers to change, such as a lack of willpower and the perception that one is too busy to make healthy changes, predict failed attempts to change diet and exercise behaviors” (p. 20).

**Socioeconomics Impacting Physical Activity in Adults**

Research data reveals high increase in physical inactivity in the United States, especially among minority women (American Obesity Association, 2005; Keim, Blanton, & Kretsch, 2004; USDA, 2008). According to Keim and colleagues, greater than 60% of adults in United States do not participate in physical activity on a regular basis and 25% do not participate in any physical activity. Furthermore, study results indicate that the majority
of adults in the United States perform less than 30 minutes of moderate physical activity each day, with the levels of physical activity performed varying according to sex, age, ethnicity, and socioeconomic status. Study results indicated that population groups most likely to be inactive include women, Hispanics, African Americans, older adults, and low socioeconomic status population subgroups. African American women and Hispanic women were sedentary, which have increased risks for obesity and obesity-related comorbidities due to being sedentary (CDC, 2007, American Obesity Association, 2005; Keim, et al. 2004; USDA, 2008).

Lopez (2007) and Whitney & Rolfes (2008) found increased age to be associated with decreased physical activity and slower metabolism, leading to obesity. Because of more activity limitations in overweight and obese older adults than those at healthier weights, physical activity is restricted in overweight and obese older adults (Center on an Aging Society, 2003). Reports from the Center on an Aging Society further indicated that older adults age 51 and older who are obese are less likely to exercise moderately or vigorously when compared to adults in the same age group who are not obese. In addition to physical activity being drastically reduced in older adults who are obese, disability or difficulty with activities of daily living (ADLs), such as eating, bathing, and dressing is higher and more severe than in older adults who are not obese. Furthermore, older adults who are obese have greater difficulty or inability regarding walking any distance, shopping, participating in social events, or working (Center on an Aging Society). All of these disabilities drastically reduce physical activity in many older adults, which in turn, increase the obesity risk factors.

Regarding gender, Hankinson (2008) found that, in 2005, fewer women than men met the recommendations of the Office of the US Surgeon General, the Centers for Disease
Control and Prevention, the American College of Sports Medicine, and the American Heart Association to perform at a minimum of 30 minutes of moderate–intensity physical activity 5 days per week. Specifically, Hankinson reported 43% of women and 48% of men were in compliance with recommendations for physical activity. Stice, et al. (2006) found conflicting results in effects of obesity prevention programs relative to gender, indicating that programs promoting increased physical activity and/or decreased sedentary behaviors were more effective with females than males.

Socioeconomic barriers relative to income have been associated with physical activity among adults. Data from the 2001 BRFSS indicated that physical inactivity was more prevalent among the less affluent than the more affluent (Keim, et al., 2004). Lopez (2007) also found that individuals with higher household income reported increased physical activity levels. In addition, neighborhood-level income or education levels have been found to be highly correlated with physical activity levels (Hart, et al, 2006).

Self-efficacy, in association with the confidence that an individual has to perform exercise, has been acknowledged as a powerful predictor of the ability of an individual to implement a physical activity program (Keller, et al, 1999). Keller and colleagues found a significant relationship between self-efficacy and an enhanced physical activity pattern. Stice and colleagues (2006) also found internal barriers to change involved with physical activity behaviors, including lack of willpower and the perception that one is too busy to make healthy changes.

Summary

The prevalence of overweight and obesity as well as overweight and obesity-related co-morbidities among adults has escalated over the past decade. Currently, overweight and
obesity negatively affect the physiological and psychological health of approximately two-thirds of the adult population of the United States. In addition, disparities exist in regards to population subgroups at risk for overweight, obesity, and related health problems. The prevalence of overweight and obesity-related co-morbidities including diabetes, hypertension, stroke, some types of cancers, cardiovascular disease, osteoarthritis, sleep apnea, and gallbladder disease were found to be much higher among the African American adult subgroup than other racial and ethnic groups in our society.

There is an uneven distribution of overweight and obesity with related negative health consequences among states in the nation. The prevalence of adult overweight and obesity, at over 30%, is higher in the state of Mississippi than other state in the United States. Furthermore, the prevalence of overweight, obesity, and related co-morbidities are unevenly distributed within states. Jefferson County lies in Southwest Mississippi, and leads the state and nation in the prevalence of adult overweight and obesity, especially among African American adults. Adult overweight and obesity rates are also high in Claiborne County, another Southwest Mississippi county.

Adult overweight and obesity result in a great expense to the state and nation, in terms of healthcare cost and mortality. Sadly, many of the major health issues and deaths that occur due to overweight and obesity-related co-morbidities are preventable. Approximately 70% to 90% of the preventable overweight and obesity related deaths were found to stem from tobacco use, poor nutrition, sedentary living, and physical inactivity (Aldana et al., 2005).

The interaction of socioeconomic factors such as race and ethnicity; age; gender; income; educational attainment; and self-efficacy has been identified as key risk factors for
overweight and obesity. Socioeconomic barriers to practicing overweight and obesity prevention and reduction strategies, such as adhering to a healthy diet and maintaining adequate physical activity patterns, were discovered relative to many adults.

Many adults are nonadherent with appropriate diets, and are sedentary and/or inactive. Diet, physical activity, and social support were found to be key elements in reducing adiposity and overweight and obesity in adults. Socioeconomic factors found to affect food choices include ethnic traditions; resources; living conditions/location; age; taste; cost; life course experiences; convenience; roles/role transitions; and time constraints. Furthermore, working adults were found to be more likely to rely more heavily than non-working parents on prepared, processed, and fast foods, which generally have high calorie, high fat, and low nutritional content. It was also concluded that the size of adults, attitudes and perceptions regarding overweight and obesity status, and self-efficacy were determinants of adults’ ability to make healthy lifestyle changes.

Socioeconomic barriers related to overweight and obesity reduction behaviors are key issues to be addressed for weight reduction interventions. The impact of motivational strategies varies with different groups. Therefore, the assessment of socioeconomics impacting overweight and obesity reduction behavior among adults comprise the first step towards planning, developing, and executing effective weight reduction programs for targeted adult population subgroups.
CHAPTER 3. METHODOLOGY

Chapter Overview

The research methodology used in this study is described in this chapter. A description of the research design, site, sample, and data collection procedures are outlined. Data analysis strategies and potential ethical issues surrounding this study are also described in this chapter.

Research Design

The research design for this study has a qualitative focus. Qualitative research is defined by Creswell (2005, p. 39) as:

A type of educational research in which the researcher relies on the views of participants, asks broad, general questions, collects data consisting largely of words (or text) from participants, describes and analyzes these words for themes, and conducts the inquiry in a subjective, biased manner.

An earlier similar definition of qualitative research conveyed by Creswell (1998, p.15) was coined:

Qualitative research is an inquiry process of understanding bases on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting.

Qualitative research allows researchers to view the world in different ways than the quantitative method does (Krueger, 1998). According to Krueger, few assumptions are made about the ways things work and causation is attributed with extreme caution with qualitative research. Krueger further ascertain that while “the scientific method is built on precision, careful formulas, and control over the environment,” the qualitative inquiry requires beginning at a point “with fewer assumptions and openness to alternatives” (p. 3). Following the outline of Creswell (1998), a qualitative approach was undertaken in this study because of the nature of the research questions requiring a description of what is going on, the topic
needing to be explored to identify variables and develop theories to explain participants’ or study population’s behavior/needs, a detailed view of the topic needing to be presented, satisfying the interest of the researcher in writing in a literary style, using the pronoun “I” to bring himself/herself into the study, audiences being receptive to the qualitative approach, and emphasizing “the researchers’ role as an active learner who can tell the story from the participants’ view rather than as an “expert” who passes judgment on participants” (p. 18).

A qualitative method using focus groups was employed in this study to determine socioeconomic barriers that African American adults face in adhering to dietary and physical activity health behaviors to reduce overweight and obesity in Claiborne and Jefferson Counties, Southwest Mississippi. “The focus group is a type of group interview” (Grudens-Schuck, Allen, & Larson, 2004, p.2). The focus group methodology was chosen because focus groups provide a deep and comprehensive insight into how perceptions and behaviors of individual and groups are shaped by socioeconomics. The focus group methodology has been found to be a valuable tool for educators and researchers to use in generating valid information vital to the advancement of programs, communities, and organizations (Grudens-Schuck, et al.) Thus, information gained from focus groups can serve as a basis for tailoring weight reduction intervention/treatment programs to the particular needs of the targeted population.

Researchers have identified several purposes for conducting focus group interviews (Creswell, 2005; Grudens-Schuck, et al., 2004; Krueger, 1998). Creswell defines a focus group interview as “the process of collecting data through interviews with a group of people, typically four to six” (p. 215). Focus group purposes include provision of trustworthy naturalistic data that promote insight into human behavior (Grudens-Schuck, et al.). Grudens-
Schuck and colleagues indicate that in seeking insight rather than rules, focus group participants aren’t restricted by the selective choices typically provided in survey research. This allows the research to grasp more than just the facts. Because participants are generally allowed to give their perceptions, demonstrating “emotions, ironies, contradictions, and tensions” (Grudens-Schuck, et al., p 2), researchers are able to better understand the underlying situational meanings.

Another purpose of the focus group interview is to provide a picture of combined perspectives of the social group rather than just the individuals’ perspective (Creswell, 2005; Grudens-Schuck, et al., 2004). Data elicited from the conversation among focus group participants is shaped by the “social, semi-public nature of the methodology” (Grudens-Schuck, et al., 2004, p.2). Additional purposes that the focus group method fulfills include flexibility in the conversation flow rather than being standardized and “focus groups produce conversations that border on intimacy” (Grudens-Schuck, et al., 2004, p.3). Thus, with careful planning, the researcher can elicited a natural exchange of ideas on a wide range of topics, especially semi-intimate or sensitive topics such as weight status.

Site

The home site for this study was Alcorn State University (ASU) campus, Alcorn State, Mississippi. Focus group sessions/discussions were conducted in the conference room of the Department of Human Sciences at ASU. ASU was chosen for a study site for several reasons. Many of the African American faculty and staff employed at Alcorn State University live in Claiborne and Jefferson Counties and, therefore, this site promoted easy access to a large number of the targeted population. In addition, ASU lies in Claiborne County which adjoins Jefferson County. This provided close proximity to the targeted
population, and adequate control over recruitment and data collection from the counties of interest. The location of ASU in proximity to the targeted counties provided convenience in traveling and easy access for study participants who reside in Claiborne and Jefferson Counties.

Sample

Purposeful sampling was used to recruit participants for this study. Purposeful sampling is used for qualitative sampling, whereby “researchers intentionally select individuals and sites to learn or understand the central phenomenon” (Creswell, 2005, p.204). The targeted population sample will best be able to provide answers to questions posed by the researcher. Inclusion criteria for the sample included non-institutionalized African American adult males and females, age 20 years or older, who reside in Claiborne and Jefferson Counties, Southwest Mississippi. Exclusion criteria included females who are pregnant. The African American adult subgroup population of Claiborne and Jefferson Counties was chosen because research indicates African American adults in general and African American females in particular, are at greater risks for overweight and obesity and related health problems. In relation, a high percentage of Claiborne and Jefferson Counties’ residents are African Americans. The Southwest Mississippi County, Jefferson County has the highest rates of adult overweight and obesity in both Mississippi and the United States as a whole. Claiborne County has many similarities including population. The chosen population for the focus groups was more likely able to provide past and current data relevant to their situations and the Southwest Mississippi living environment.
Recruitment

Focus group participants were recruited through advertisements/flyers posted on Alcorn State University Campus, business bulletin boards, and throughout informal community networks such as churches. Flyers were also e-mailed and hand delivered to recruitment locations, as appropriate. Faculty/staff employed at Alcorn State University who reside in Claiborne or Jefferson County were also recruited through flyers e-mailed to their ASU e-mail addresses and/or face-to-face contact. The word-of-mouth recruitment method was used in that recruited faculty/staff and other study participants informed other residents of Claiborne and Jefferson counties of the study.

A representative sample for a total of six focus groups consisting of four to eight participants each were recruited for the study. The sample size determination was based on typical number of people studied for qualitative research. Typically a few individuals or cases are studied in qualitative research, using multiple sessions of focus groups to get a cross section of views from the targeted population (Creswell, 2005; Grudens-Schuck, 2004). However, the recommended number of participants for focus group sessions varies per researcher. For example, Grudens-Schuck and colleagues recommend a minimum of 10-12 participants in each focus group. Creswell (2005) suggests a focus group session as small as four to six participants is typical. Yet, another researcher, Morgan (1998), recommended limiting focus group interview sessions to small groups of six to eight participants with similar backgrounds, such as race/ethnicity, financial, workplace, residence, etc. Although the number of participants in focus group sessions will vary, the main purpose of focus group interviews can be attained with multiple sessions of small groups. The four to eight participant sample size used in this study is within the limits set by various researchers. In
addition, a group of four to eight participants was a number that could easily be accommodated with the available location, space, and focus group activities of this study.

To offset the expense of participants’ travel and inconvenience, participants were compensated with a small monetary award ($10.00) at completion of the focus group interview. Due to participants coming for the focus group during their lunch hours, a nutritious lunch was provided at each focus group meeting. An additional incentive/benefit for study participants was the opportunity to get a free clinical assessment of adiposity and weight status, risk for weight-related co-morbidities, and recommendations for lifestyle modifications based on adiposity status, waist-to-hip ratio, and waist circumference. This service would be very expensive if provided through a health care facility.

**Instrumentation**

Prior to conducting the research study, recruitment and data collection instruments were developed, tools for recording incentivite-related measurements were prepared, and permission to conduct the study was obtained from Alcorn State University and the Human Subjects Review Committees at Iowa State University. Because Alcorn State University was chosen as a site for recruitment and data collection, approval was secured to conduct the study from the Institutional Review Board at Alcorn State University. The recruitment tool consisted of a flyer requesting assistance. A copy of the recruitment flyer is provided in Appendix A. An informed consent form outlining study purpose, overview, and participants’ rights is provided in Appendix B. A modified version of the current BRFSS Questionnaire was used to gather demographic information about participants. A copy of the demographic information instrument is provided in Appendix C. Focus groups interview guide for consistency across all focus groups were adopted/modified from a focus group discussion
outline designed by Kennedy (2009) “to identify African American cultural characteristics that may be used to modify clinical trial designs and behavioral programs aimed at losing weight and maintaining weight loss” and questions modified from the Hollandale Delta Nutrition Intervention Research Initiative Study (Hollandale Delta NIRI, 2005). Questions on the initial focus group discussion guide are included in Appendix D. A copy of the physical activity and inactivity questions to assess the prevalence of physical activity consistent with physical activity recommendations of Healthy People 2010, printed from BRFSS Survey, 2001 (Center for Disease Control and Prevention, 2003) is included in Appendix E. Copies of the Alcorn State University Institutional Review Board Approval Form and the Iowa State University Institutional review Board Approval Form are provided in Appendix F.

Reliability was established prior to the study. Most of the questions were adopted from two previous studies and, therefore, already had reliability status established. To further increase reliability with the instrument for this study, the questions were pilot tested. A group of four faculty/staff members who work in the Department of Human Sciences and reside in Jefferson or Claiborne Counties served as a pilot focus group. They were asked questions developed for the focus group interview guide and the guide was modified on basis of responses and recommendations from the pilot focus group participants.

Data Collection

Prior to conducting focus groups, all individuals targeted to assist with the research including data collection were trained as needed. Study researchers were trained in the same training session(s) to conduct shared activities the same way. Nutrition and Dietetics students
assisted in copying questionnaires/surveys. Nutrition and Dietetics students also assisted in preparing/setting up for lunch service and taking anthropometric measurements.

Upon arrival at the focus group hosting site, participants were asked to register for the focus group session. Next, they were informed of the study purpose, lack of harm for participants, and participants’ other rights relevant to participation in the research study, the timeline for the focus group session, and the plans for using the results of the study. After informing participants of the implications of the study, each participant was asked to sign an informed consent form.

Prior to beginning the focus group interviews, demographic information was obtained. A handout of a figure of silhouettes of women and men presenting various BMI levels were also presented as part of the demographic information survey. Participants were asked to circle the first silhouette in the line that was overweight for each gender.

Anthropometric measurements (weight, height, hip, and waist circumference) and a 24-hour recall were taken. To ensure accuracy, measurements were performed twice for each participant with the use of standardized, recommended techniques. The waist circumference measurement was taken at the narrowest observed point between the bottom of the rib cage and the umbilicus; if a point of least circumference was not apparent, measurements were obtained at the umbilicus to the nearest 0.1 centimeter (cm). Measurements were taken, using a calibrated inelastic measuring tape. The 24-hour dietary recall was administered by face-to-face interviews, using the multiple-pass method/techniques for gathering diet intake information. Focus group sessions, questionnaires/surveys, anthropometrics, and 24-hour recalls were conducted at the same visit. However, follow-up was required for completion of questionnaires/surveys, anthropometrics, and 24-hour recalls for participants who did not
arrive early enough to get them done prior to the focus group interview sessions, with participants’ approval. Anthropometrics were only used to provide a clinical assessment of participants’ weight/adiposity status and health risks as part of the incentive for the research study participation.

The focus groups were conducted by a trained moderator for approximately 45 minutes to an hour. The moderator who conducted the focus groups was of African American race/ethnicity. Participants were asked open-ended questions to (1) determine the participants’ attitudes and opinions toward their adiposity status, dietary behavior, and physical activity; (2) determine participants’ perception of body weight and the relationship of overweight and obesity to health; (3) elicit participants’ responses to questions addressing perceived socioeconomic barriers impacting their dietary and physical activity behaviors; and (4) elicit participants’ suggestions on how to achieve overweight and obesity reduction among adults in their Southwest Mississippi environmental elements. Each focus group session was recorded for accurate transcription. Brief field notes were also taken on an interview protocol form by a second researcher during focus group sessions.

At the beginning of the focus group session, guidelines governing the focus group interview participation protocol were provided by the moderator. The moderator opened the discussion by asking each participant to state only his/her first name and cite his/her favorite food. Then the moderator proceeded to ask the open-ended questions from an interview guide as responses were recorded from each participant.
**Data Analysis**

Qualitative data analysis consists of both descriptive and thematic development. The recording from each focus group session was transcribed into words for coding of themes (pattern coding) and concerns central to areas of discussion within and across groups, noting similarities and differences. The transcribed data was typed into a computer file for analysis. Individual comments were categorized to determine the range and significance of related responses. Then data was summarized within and across groups including how themes interrelate (Parham & Scarinci, 2007). Validity, trustworthiness, and credibility were maintained by member checking. In this process, the researcher asked the moderator and two faculty members in the Department of Human Sciences to read the focus group transcriptions and determine emerging themes. Themes interpreted by this panel were similar to those interpreted by the researcher.

Anthropometric measurements were used to calculate the BMIs and other body composition assessments and health risks for comparison with participants’ perception of adiposity status and health risks. The adiposity (body fat) level and composition (BMI, fat mass, fat-free mass, body water percentage, etc.) for each participant were analyzed using the Tanita Body Composition Analyzer. Pertinent measurements were entered into the Tanita Body Composition Analyzer for calculation of body composition. Relative to the BMI, participants were classified as underweight (< 18.5), normal weight (18.5 to 24.9), overweight (25.0 to 29.9), or obese (≥30.0) according to the 2000 Centers for Disease Control and Prevention standards. The BMI was used to assess adiposity (overweight and obesity) because it correlates with body fat content in most people in the United States (U. S. DHHS, 2007). Obesity status was further assessed. A BMI of 30.0-34.9 is classified as level I
obesity, 35.39.9 as level II obesity, and ≥40.0 as level III (extreme) obesity by the National Heart Lung and Blood Institute (2008). The American Society for Metabolic & Bariatric Surgery further differentiate grades of obesity for adults into morbidly obese (BMI ≥ 40 or a BMI ≥ 35 with an obesity-related disease, such as type 2 diabetes, heart disease or sleep apnea) and super obese (BMI ≥ 50). Waist circumference at or above 37 inches for men and 31 inches for women is categorized at the high risk waist measurement, and ≥40 inches in men and ≥35 inches was categorized in the risk for metabolic syndrome for age, ethnicity, and sex according to the 2000 Centers for Disease Control and Prevention risk factors for the metabolic syndrome. Participants were classified using the following standards for percent body fat according to sex and age outlined in Table 3.1:

Table 3.1

Standards for Body Fat Percentages for Women and Men

<table>
<thead>
<tr>
<th>Age</th>
<th>Under Fat</th>
<th>Healthy</th>
<th>Over Fat</th>
<th>Obese</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Women</td>
</tr>
<tr>
<td>20 to 39</td>
<td>5 to 20.9</td>
<td>21 to 33.0</td>
<td>33.1 to 37.9</td>
<td>38.0 and above</td>
</tr>
<tr>
<td>40 to 59</td>
<td>5 to 22.9</td>
<td>23 to 34.0</td>
<td>34.1 to 40.0</td>
<td>40.1 and above</td>
</tr>
<tr>
<td>60 to 79</td>
<td>5 to 23.9</td>
<td>24 to 36.0</td>
<td>36.1 to 42.0</td>
<td>42.1 and above</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Under Fat</th>
<th>Healthy</th>
<th>Over Fat</th>
<th>Obese</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Men</td>
</tr>
<tr>
<td>20 to 39</td>
<td>5 to 7.9</td>
<td>8 to 20.0</td>
<td>20.1 to 24.9</td>
<td>25.0 and above</td>
</tr>
<tr>
<td>40 to 59</td>
<td>5 to 10.9</td>
<td>11 to 22.0</td>
<td>22.1 to 28.0</td>
<td>28.1 and above</td>
</tr>
<tr>
<td>60 to 79</td>
<td>5 to 12.9</td>
<td>13 to 25.0</td>
<td>25.1 to 30.0</td>
<td>30.1 and above</td>
</tr>
</tbody>
</table>

Standards outlined in Table 3.1 indicate the adiposity or body fat levels for women and men.
A simple twenty-four hour diet recall was used to assess dietary intake. Subjects were asked to recall of all food and drink, including snacks, consumed over the previous day. Food data was entered into the *Nutritionist Pro™ Diet Analysis* software program to acquire a complete nutrient analysis of participants’ diets with up-to-date food and nutrient data. Adequacy of dietary intake was based on the USDA Food Guide protocol.

Physical activity level and pattern were assessed using questions from the BRFSS Survey to assess participants’ participation in moderate and vigorous activity. Participants’ responses to the BRFSS Survey were used to determine if participants engaged in regular physical activity according to the Healthy People 2010 objective for regular physical activity. According to the Healthy People 2010 objective for physical activity, a regular physical activity rating requires at least 30 minutes a day of moderate-intensity activity on five or more days a week, or at least 20 minutes a day of vigorous-intensity activity on three or more days a week or a combination of the two.

**Potential Ethical Issues**

As with all research studies, ethical issues relate to respecting audiences, using nondiscriminatory language, respecting the rights and welfare of participants, honoring research sites, and reporting research fully and honestly (Creswell, 2005). Specific to this study is avoiding contamination of the research (focus group interviews) by interjecting the researcher’s views, values, perceptions, and attitudes. To avoid contaminating the focus group interview data, the interviews were conducted by a neutral moderator with training in
conducting focus group interviews. The study researcher observed, with permission of focus group participants, and took field notes at each focus group session.
CHAPTER 4. RESULTS

Introduction

The purpose of this study was to explore socioeconomic barriers to overweight and obesity reduction relative to healthy dietary behaviors and physical activity among African American adults who reside in Claiborne and Jefferson Counties, Southwest Mississippi. Data and findings from data analysis are presented in this chapter from a series of focus group interviews. Numerous and varied themes related to socioeconomic barriers to overweight and obesity reduction among African American adults who reside in Claiborne and Jefferson Counties were identified from data transcriptions. These included participants’ beliefs/practices regarding health and/or weight reduction behaviors. Specifically, themes interpreted were beliefs/practices, socioeconomic barriers/promotors, and motivators reflecting dietary habits; beliefs/practices, socioeconomic barriers/promotors, motivators reflecting physical activity patterns/levels; motivators for weight reduction behaviors; and strategies for effective weight reduction programs targeting African American Adult participants residing in Claiborne and Jefferson Counties.

Sample

The study sample of 32 African American adult residents of Claiborne and Jefferson Counties included 17 participants from Claiborne County (5 men and 12 women) and 15 participants from Jefferson County (4 men and 11 women). Each participant participated in one of six focus groups held between September 29, 2009 and October 28, 2009. Study participants, grouped according to county and gender, included two groups of women and one group of men from each targeted county. The total sample included 9 men and 23
women. Focus groups consisted of four to eight participants. The total number of participants in each focus group was four females from Claiborne County in focus group one (September 29, 2009); five males from Claiborne County in focus group two (October 7, 2009); four females from Jefferson County in focus group three (October 9, 2009); five males from Jefferson County in focus group four (October 12, 2009), seven females from Jefferson County in focus group five (October 19, 2009); and eight females from Claiborne County in focus group six (October 28, 2009).

**Qualitative/Thematic Findings**

The broad theme findings, qualitatively, from this focus group study are outcomes of six focus group interviews. The open-ended focus group questions from the formative evaluation discussion guide were the driving force for theme development. Major themes were interpreted for African American adult men and women from Claiborne and Jefferson Counties, Southwest Mississippi. Major themes were developed using the procedure of Krueger (1998) for analyzing and reporting focus group results. Krueger proposes that three factors, including frequency of comments, extensiveness of comments, and intensity of comments have a role to play in analysis of themes. In addition, feedback from three faculty/staff members from the department of Human Sciences at ASU was used for validation of themes interpreted by the researcher. These faculty/staff members were considered to be experts in regards to knowledge and skills in the subject matter, focus group analysis procedures, and/or demographics of study participants. This group providing feedback included a Ph. D level faculty in research/Nutrition and Dietetics who is a registered dietitian with training in qualitative research and is highly experienced in
conducting focus groups; a faculty in Child Development who has experience in Extension Program management; and the staff member who served as focus group moderator for this study. The moderator has training in qualitative research and experience as a research community liaison and conduction of focus groups. Themes captured by these experts had high similarity with themes extracted by the researcher.

Themes interpreted surrounded special beliefs and/or practices regarding health/weight reduction behaviors. Health/weight reduction behaviors include dietary behaviors and physical activity patterns/levels. Themes related to weight reduction program strategies were also interpreted through thematic analysis of focus group interview transcriptions.

**Dietary Behaviors**

**Dietary behavior beliefs/practices.** Many special beliefs/practices specific to dietary practices were extracted regarding health/weight reduction. Some special beliefs about food choices/other food habits included the beliefs surrounding the need to have improved eating habits for most participants. A common belief was that dietary related health practices are based on culture/customs/traditions. Other health/weight reduction-related beliefs included beliefs in eating good healthy food, using variety, and eating more fruits and vegetables, including leafy green and yellow vegetables. Some participants also voiced the belief in eating nuts and healthier snacks. Beliefs in (a) drinking plenty of water, (b) using correct serving sizes, (c) avoiding excessive weight gain, (d) having a balanced diet, and (e) avoiding gluttony to prevent excessive weight gain were also indicated by study participants.

A lively dialogue ensued regarding dietary behavior related special beliefs and practices among study participants from Claiborne County. A response from one participant was
“Well, number one, you got [sic] to eat right, do exercise, keep your health in good shape.”

Another participant responded, “My belief is that you should eat good food, healthy food
…. “My belief, ah, is that to stay healthy, eat healthy foods and vegetables, drink plenty of water…. A different participant pointed out:

“Yes. I believe in order to stay healthy; you eat what you really need. Ah, if you look at me, I’m small. I don’t go back for seconds. But if you eat enough, it won’t kill you. It will make you healthy because you won’t gain all that excessive weight. And eating portion sizes, too.”

Another female participant from Claiborne County added “Eat in moderation. I know there are certain things that you like to say eat like [sic] the sodas or desserts but if you do it in moderation…” The conversation among Jefferson County participants included such statements as, “What I should do is, ah, develop a better way of eating ….”

Although most participants cited beliefs that healthy eating was good for health/weight reduction, the majority of them did not put those beliefs into practice on a daily or regular basis. This was especially true for female participants. Participants indicated consuming preferred foods while knowing them to be unhealthy and avoiding foods disliked knowing that they are healthy. Related statements from participants included:

On a personal level, I drink a lot of pops and I know that’s not good for my health, but I like them and I drink them. We should have a balanced diet and we should, ah; Our breakfast is our most important meal and we should have breakfast every morning, which I don’t have and like [sic] water, you should have at least eight glasses of water a day, which I don’t have. I don’t like water and it is good for you.

One participant summed it up with this response:

But I also think that, ah, in order to be healthy and remain healthy, we need to know the difference in what we believe and what our actions are, because I think there is a distinct difference. I might say I believe in healthy eating, but I will eat a pot of neck bones. So there’s a difference in what I believe and I know to be fact and what I actually practice, and I think that’s ah, I think that’s a cultural thing.
In regards to eating habits, one participant from Jefferson County said “Variety with more fruits and vegetables.” Another participant added “Don’t glut; do not glut at eating time; just eat enough” Further comments from various participants were “And strive on eating more healthier [sic] snacks,” “Nuts,” and incorporating more nuts, too.” An additional participant agreed saying ‘yea.” I do try to eat an apple a day. I do believe that will keep the doctor away, but, ah, I also believe in trying to consume so much water.” This participant further added that she believed that we should consume a gallon of water on a daily basis. She ended this dialogue with “Should have that. That is my belief about water intake; more water.” One participant said she believed in incorporating green leafy vegetables. Another participant added “and yellow vegetables are good.”

In addition, special beliefs/practices regarding food choices were found to be connected to concerns with the nutritional content of dietary intake. For special practices, specially, regarding food choices and other food habits, participants cited the practice of choosing non-fatty foods and eating “comfort foods.” One participant voiced “Try to choose non-fatty foods.” Furthermore, one of the male participant’s practices is replacing electrolytes by putting a lot of salt in his food when participating in sports or other heavy physical activity. As indicated in earlier passages, all participants believed in drinking adequate water.

In further discussion of special beliefs/practices regarding food choices, study participants revealed that although food choices are good, selection of certain foods are actually based on finances. All except one participant had the belief that it cost more money to eat healthy. Such statements were made as “But to me healthier, to eat healthy, cost more money.” Other group participants voiced agreement with statements such as “Yea,” “To me,
Negatively, because the majority of participants have the perception that all healthy foods are more expensive, they, therefore, purchase less nourishing foods to get the most for their money. One participant stated:

Well, food choices are always good because most of us like to eat and then when we look at selecting certain foods to eat, all the healthy foods are more expensive than the fat foods, so we normally want the biggest buck for our dollar. So therefore, I mean even though we know the cantaloupe may be the best thing for us, but we normally get one of those and we can buy four honey buns for a dollar.

Older study participants’ food choices and other eating practices were based on food likes/dislikes and psychological aspects of the chosen food or eating practices, such as the comfort and satisfaction attached. Some responses included:

Well, I think that; well I know for me personally, I eat comfort foods. I eat foods that bring back memories. I eat foods that I enjoyed as a child, and I’m talking about now. I eat foods; those same foods are not good but it was good to me as a child and it didn’t actually hurt me as a child and as growing up, but now it’s killing me. ---It could be the culmination of eating wrong, but I felt happy.

Another participant responded “If I want it, I eat it. I know that it’s not good for me. Like she; like … said, you know, you want it because you want it, knowing that it is not good for you.” Another participant agreed in stating “I think we do that because it’s satisfying.” “Once you see it, you want it, you eat it, you’re satisfied momentarily.” There was consensus among participants that beliefs and practices regarding food choices and other eating habits among African American adults stem from traditions, as indicated in the statement, “That food was customs and traditions.”

Eating appeared to be an important leisure activity for both Claiborne County and Jefferson County participants. All responses given regarding leisure time activities involved
eating. One participant simply responded to the question regarding leisure time activities with “eating.” Most female participants in this group acknowledged the habit of trying to go out at least once a month to a restaurant and trying different foods.

Beliefs regarding money for participants centered on never having enough money and having to “stretch every little bit you get.” The issue of inadequate money/low income played a major role in dietary behaviors. Thus, many of the young participants’ practices were aimed at spending money effectively. This included all females in the second group of females from Jefferson County. Younger participants were highly verbal with this concept. Statements from Jefferson County participants regarding beliefs or practices about money included “Use it wisely;” “Shopping wisely;” “Managing it;” “Stretching every dollar;” “Wrap up the pennies;” and “And the nickels.”

Beliefs/practices regarding money were portrayed quite differently for older participants than those were for younger participants. Older participants’ beliefs and practices regarding money appeared to be centered around spending money available on what is wanted. The dialogue that ensued among participants illustrated the contrasting nature of these participants’ beliefs and practices regarding money. The dialogue included the following statements:

I think money would dictate what we are able to spend, not only on food and products and that would limit us. Some expressed earlier that we would spend more money on dietary food or diet food than on regular food and then we heard the other side of that coin. I think the consensus around the table is that we buy what we want. So it depends on what you’re purchasing and how much you have to spend.

Another participant added:

And I think we spent too much money on food and we waste too much food because if we don’t like it, we will throw it out and go back to the store and instead of going
to the store one time a week, some go every day or every other day. And so you’re using money if it is available. We’ll spend it on food and I think that is also a cultural thing. This is not what I want so I’m going back to get what I want. It becomes a psychological issue. Most of us eat to feel good and you’re going to buy what you want to eat.

Claiborne County male focus group participants’ beliefs/practices regarding money were split down the middle. Half of the male participants believed that money should be spent. The other half believed that money should be saved, invested, or spent wisely. Male participants from Jefferson County beliefs and practices regarding money mirrored those of the second group of females from Jefferson County. All male participants from Jefferson County believed in using money and managing it wisely. One participant said, “You’ve got to invest your money. You’ve got to let your money work for you. You can’t work for your money.” Two other participants in the group echoed, “You shouldn’t waste it.”

Study participants’ practices reflecting dietary habits regarding choosing foods to buy included buying according to (a) price/sale, (b) food preference, (c) suggestions from adult children or adult family members/friends, (d) tradition/custom, (e) freshness of the food, (f) nutritional considerations of food including light/lite which is “one-third fewer kcalories than the comparison food; 50% or less of the fat or sodium than the comparison food” (Whitney & Rolfes, 2008), zero trans fats, and reduced sugar content, (g) disease risks such as hypertension and diabetes, (h) family situations/activities, (i) householder likes/desires, and (j) to supplement vegetables grown in the home garden. An additional practice voiced by one female participant was browsing in the store aisles to find food to buy. The practice of another participant included using consideration of children likes with snacks in choosing what foods to buy.
For Jefferson County participants, especially females, the main factor in choosing foods to buy varied. Most females in the first female focus group from Jefferson County indicated price to be the main factor in choosing what food to buy or get at the store. Price was a consideration in choosing or buying food for participants in the second group of females from Jefferson County, but the greatest basis for this group of participants’ food choices was a liking for the food. One participant stated, “I get what I like. All except one of the group participants responded in agreement with statements such as “Me, too” or “Amen.” The lone participant considered the requests of family members in choosing foods to buy. In her response to participants who stated that they bought what they liked, she said, “I don’t. I always call my son and say what are we going to have for dinner, especially Sunday dinner? And he’ll tell me something to cook. He likes vegetables and stuff. So, I’ll tell you one thing I have every Sunday, stewed sweet potatoes.” At this comment, one group participant reminded the group that tradition and “custom doingers [sic]” play a role in food choices.

Influence from friends had some bearing on the choice of foods to buy for one participant. An additional practice voiced by one participant was browsing up and down the store aisle to find foods to buy. Only male participants voiced their consideration of freshness of the food in choosing foods to buy.

Participants also cited perceptions that preferences for certain foods and exercise habits are based on being an African American, in so far as foods eaten and cooking methods used stem from parents’ teaching. In fact, this was highly agreed on by the majority of participants from both Claiborne and Jefferson Counties. Only one male and a few female participants voiced the perception that their preference for certain foods and physical activity behaviors were not based on being African Americans. One Claiborne county resident stated:
Yeah, because most of the foods we eat are foods that our parents have taught us to cook. Even though now we’ve learned that we can’t use probably as much of the fat, because now we have a variety that we can use. I mean they have the olive oil and canola oil that you can use instead of fatback. Or you know, we have the option now but basically our food stuff stems from what our parents taught us.

Likewise, the sentiment was echoed among other participants as indicated in their statements. Participants stated “I think a lot of the way we eat has a lot to do with the way our parents....” and “So it is with habits and exercise.” Another participant further explained that her mother was a great inspiration to her when she was growing up. She acknowledged that the things learned from her mother affect her current dietary behaviors. She stated:

So I think it does affect what I eat, what I do, how I feel. It does have to do with me being African American, all the way down to using ham hocks in my collard greens, and whenever I go to a, you know, heart doctor, cardiologist, and he tells me that sooner or later, it’s going to kill me, I say ok but while I’m alive, I’m going to enjoy myself. I think it’s a cultural thing because the other folks wouldn’t ; some of them wouldn’t put them in there in the first place, but I’m going to put it in there and I’m going to eat it.

With the exception of one male participant from Jefferson County stating, “Not really,” male participants indicated the perception that their preferences for certain foods are based on being African Americans. Related comments made included “Believe in a heavy, have to have my grease and cornbread and heavy type food” and “Our cooking, uh [sic], like [sic] very different from other races. The products we use [sic]...” Other supporting comments made were (a) “Yea [sic], based on heritage, a lot of fried foods,” (b) “Like us and fried chicken,” (c) “Like chitterlings and hog mog,” and (d) “And having more than one entrée in a meal.”

The dialogue among participants in the first group of females from Jefferson County regarding preferences for certain foods based on being an African American also proved to
be lively and interesting. All female participants in this group perceived that their preferences for certain foods and physical activity behaviors are based on being African Americans. Participants perceived that behaviors under discussion started early in life. Several related statements were, “Because the way we were reared eating wrong and it’s just what you call hereditary. Now that we know better, we are trying to do better, but it is hard to get away from that smoked meat in the greens and pork,” and “Yea, but.” Another participant said:

When we were growing up, our parents gave us what they could afford and what they could give us. and most of them raised their own, ah, hogs what-have you and their own vegetables and we grew up eating it and, therefore, we brought it along with us when we got older, eating the same types of food.

One participant confirmed her belief that her food choices are based on being an African American with “Yes.” She equates eating pork with a food choice based on being an African American. Another participant voiced the belief that African American adults eat by sight. Her statement was:

And we eat by sight and that is not good. A prime example, that don’t [sic] look good. I see a lot of food and I want it. My eyes are bigger than my stomach. That don’t [sic] look good and so I’m not going to eat it. It may not look good but it can be good for you.

In reference to her daughter, this participant added, “I did get her started to eat spinach. She wouldn’t eat spinach.” Other related comments by different participants followed regarding acquiring taste for foods including, “I found that out too. When I started trying to lose weight, I said I don’t want that, vegetables like steamed cauliflower, but once I started tasting it, I was like [sic], this is good.” Another participant in the first group of females from Jefferson County stated “I still cannot acquire a taste for diet soft drinks so I opted to get rid of drinks period.”
**Socioeconomic barriers/promoters for dietary behaviors.** Socioeconomic barriers extracted from the focus group interviews in connection with dietary behaviors included household income, education, and neighborhood income and education. Socioeconomic barriers for study participants are led by low income/availability of money. Many study participants voiced basic concerns about the lack of money, low salary, or inability to fit certain foods in their budgets. To get a real grasp of the effect of money as a socioeconomic barrier to positive dietary behaviors, the dialogue among participants is presented in statements such as “There is a lack of” and other related statements. One participant said:

> And I believe if my income [sic], if money was [sic], if I had more money, that [sic] I would eat better because everything is so expensive. So you know I live on a budget. So therefore, I know a lot of red meat is not good for me but I just eat it. But I love fish. So if I could afford it, I would eat baked fish everyday and turnip greens every day of my life. But because we can’t always buy certain things because of the price of food or whatever, then we have to substitute sometimes with things that’s not good for us, and then I can also eat without meat, too. I have learned to do eat, to do with or do without. I can eat with or without.

Another participant added, “I’m like …. We don’t; the salary thing doesn’t allow you to have certain things but ….” A different participant continued with:

> We try to live within our means, and to me, the black race, and [sic] you asked that question before, tend to go for, in the store what is the cheapest and whatever is on sale, may it be good for us or not, and stores know this. I think stores actually know that they can give us a large quantity of neck bones for $20.00, enough to last us a month, then that is what we’re going to buy because it is only $20.00 and it goes a long way.

A Jefferson County female further stated, “It’s because of finances. This participant had stated her perception, earlier in the interview session, that organic foods are healthier and they are not available in the county. She continues with, “Even if they have organic, if it is available, I don’t think the people in Jefferson County is able to afford organic food because it is very expensive. So I still think-------.” At this point, two other participants agreed that
“It’s an economic thing.” The first participant continued with, “Altogether, we have the highest unemployment rate there is and I just don’t think our people can afford to go and buy all the healthy foods and feed a large family or even a small family.”

The educational parameter surrounding nutrition knowledge was pointed out as a barrier to positive dietary behaviors for Claiborne and Jefferson Counties study participants. All participants indicated that a lack of nutrition knowledge plays a part in preventing African Americans from practicing healthy food choices/eating habits. One participant acknowledged that participants in her group reported eating things while knowing that they had negative effects on health. Yet, she was inclined to say “I think part of it is a lack of knowledge. Because we’re saying that we eat things that we know that is not right, not good for us. There are people out there who have no knowledge of what starchy foods, sugars, and fats and what have you will do, ah [sic], will do.”

The educational role as a barrier to positive dietary behaviors promotes unsound perceptions about food and nutrition. Unfounded perceptions about the nutrition content of foods, held by some study participants, include organic foods being more nourishing foods. Regarding barriers to healthy food choices/eating habits, one participant stated “First of all, they do not sell organic. Organic is a better you know brand of food, you know, food and vegetables that we can buy.”

The neighborhood income and education prospective as a barrier to healthy dietary behaviors is displayed in the types and amounts of food available in the counties. Participants pointed at a limited variety of food as a factor that prevents African American adults from practicing healthy food choices/eating habits in Claiborne and Jefferson Counties. As far as food selection, participants stated that most of their foodservice establishments sell fried
items and “very few offer anything other than fried food.” Males were very concise in considering “Bad food places” as specific barriers in Claiborne County that affect weight status and dietary behaviors of the residents.

The time element is closely associated with socioeconomic barriers in that more time is required for travel to get nutritious food or a greater variety of food when stores are limited in the neighborhood. In addition, employed African American adults usually work many hours daily and thus find little time to prepare nutritious meals. Study participants also suggested that it could be time that is the hindrance in preparing grocery lists or acquiring other dietary resources.

For promoters/conditions in Claiborne and Jefferson Counties that promote healthy dietary behaviors, at the onset, participants perceived no conditions in those counties that promoted healthy dietary behaviors. The first answer was “none” in reference to the related question. On second thought, participants recalled a program available at one point in time, Body and Soul, which was promoted through the churches in Jefferson County. Literature on nutrition was provided and discussed. However, participants see nothing there permanently. In the words of one participant, “I mean, it is there for a minute, then it is gone. So we have these temporary fixes.” Another participant agreed, saying “Right.”

In probing, the moderator asked, “Do the churches offer any kind of services that promote healthy food choices, healthy eating, and physical activity in your community? Participants answered, “No, but the Body and Soul was done primarily in the churches but again, like she said, it was a temporary thing. They introduced it and after it is introduced, they do it for the period that they have it and then it ends.” Other participants added in agreement, “And nobody follows up with it. There is no long term” and “yea.” One female
participant from Jefferson County simply said “having people to come around” promote healthy food choices/eating habits and physical activity.

Similar to female participants from Jefferson County in the first female group, the male participants stated that there were no conditions in the county that promoted healthy food choices/eating habits and physical activity at first thought. Afterwards, three participants recognized the schools/cafeteria. One participant said, “The schools are the only thing.” At this point, one participant explained, “At one point in time Weight Watchers was popular. A lot of teachers did it.” Then another participant from in the group said, “Oh, they did have one program for the general public.” Similar to female participants from Jefferson County, male participants indicated that these programs are no longer available in Jefferson County.

Conditions in the counties that promote healthy food choices/eating habits voiced by Claiborne County participants were also initially contradictory. At first thought, participants reported not knowing of any condition in Claiborne or Jefferson Counties that promoted healthy food choices/eating habits. On second thought, Claiborne County resident study participants recalled that the local home economist tries to put out different information about healthy eating and the “very small” health department offers health fairs from time to time to assist in providing nutrition information on healthy dietary behaviors in Claiborne County.

However, while most participants indicated lack of or limited opportunities or resources to promote healthy dietary behavior in the targeted counties, one participant was adamant about the positive status of the community in Claiborne County. She insisted that “Fresh foods and vegetables are readily available. Some [sic] free and some, you have to
purchase.” On second thought, she added, “We don’t like to expand what we eat. A lot of people don’t eat broccoli, cauliflower. I think in the black community, we need to expand what we eat. I guess you can put this under barrier. We don’t like to expand what we eat.” This participant, in particular, felt that limited healthy foods for county residents is more of a culture thing than the fact that residents can’t find them in the community and that healthy food is there but families won’t use them.

**Motivators for healthy dietary behaviors.** Motivators for healthy eating/food choices among African American adult residents of Claiborne and Jefferson Counties were sought. Participants indicated that they will be motivated to eat healthier by having access to healthy food at reasonable enough cost that residents can get it in their budgets. The importance of reasonable prices was a common echo by participants. Participants indicated reacting to their belief that healthy foods cost more money. This motivating belief is reflected in statements such as, “Because most of the time it’s the cost that keeps you from really eating healthy.” Another participant suggested expanding opening times of the farmer’s market to everyday instead of just on weekends would help residents get more fresh fruits and vegetables. Another participant felt that motivation would be provided by stores in the community providing healthy food samples. Some participants talked about having clinics and fresh foods as motivators for healthy dietary behaviors.

Motivators for some male participants would be having someone with them. Having stores that participants purchase from put up advertisements for healthy eating was also cited as motivators. Other motivation for healthy eating indicated by male participants included requirements for sports participation. One male who was involved in sports said “I have got to eat something that is going to give energy.”
Disease risk factors were also found to be motivators for healthier food choices among some participants. In relation to disease risks, one participant stated, “What I try to do now, I try to choose foods with, ah, 0 transit fats and, ah, with a lower sodium because I am, I have elevated hypertension and I try to look at carbohydrate because diabetes runs in my family and I try to stay away from that, so [sic], but I don’t go overboard in doing it but with most of my foods.”

Participants stated that African American adult residents of Claiborne and Jefferson Counties would be motivated to have healthy dietary behaviors by (a) having access to healthy food at reasonable prices, (b) expanding the days the Farmer’s Market is open to include week days to get more fresh fruits and vegetables, (c) having community stores post advertisements for healthy eating and providing healthy food samples in community stores, (d) having trained people to educate the community about food and how to prepare it, and (e) having a social support system. Other perceptions associated with motivation for healthy dietary behaviors among African American adult residents of Claiborne and Jefferson Counties included (a) health problems/risks, (b) the desire to feel good and look good for oneself (personal appearance), (c) concerns regarding being overweight or obese, and (d) restaurants offering healthy choices in addition to the regular choices on menus and encouraging healthy eating.

Upon inquiry regarding motivation for getting residents to improve dietary behaviors/other weight reduction behaviors, one participant said, “When they find out they’re fixing [sic] to die almost. Death or pending death.” Another participant repeated this motivator, saying, “Or sickness.” While another participant voiced “social support” as a
motivator. One participant resumed the dialogue regarding health issues and brought in issues of personal appearance as motivators.

   I can’t say what will motivate the county. I can say what my motivation came from. Just the health problems in my family, and seriously speaking, watching this movie. What is it? Brookhaven Obesity Clinic where these people go. They send them over there because they’re huge. And then another thing, Did you say motivate? Another thing, just want to look good and feel good for yourself, by yourself.

Another participant followed suit in claiming “Personal appearance, personal appearance” as her motivating factor.

   Male participants from Jefferson County perceived that more choices on the restaurant menu would motivate adult African Americans in the county eat healthier. Participants would like to have a lite menu as well as the regular menu choice. They also perceived that having restaurants promote healthy food choices would serve as motivators for them.

   When the moderator asked about conditions in Claiborne and Jefferson Counties that promote healthy food choices/eating habits, participants voiced the perception that currently there are no conditions in Jefferson County that promote healthy food choices/eating habits. Participants later said programs in the churches or by the industry promoted good health behaviors in the past, but they were temporary with no follow-up.

   Responses voiced regarding conditions in Claiborne County that promote healthy food choices/eating habits included the provision of information about healthy eating by the local home economist and the extension nutrition program. Statements were also made acknowledging (a) the “very small local health department” offer health fairs to provide dietary information on healthy eating occasionally and (b) nutrition programs are provided through schools.
The participants were asked about their values regarding eating behavior for a determination of the extent that values held by participants served as motivators for positive dietary behaviors. Participants indicated valuing healthy eating behaviors and considered eating behaviors to be important. According to one participant:

Because we know that it’s the food that we eat that has a bearing on the weight and that also has a bearing on your health. But now, by the same token, we also have to realize is [sic] that just because you [sic] heavy didn’t [sic] mean that you are unhealthy. Or just because you’re thin it means that you are healthy. So, uh, knowledge I guess would be the most helpful thing and knowing.

Participants cited valuing maintaining a healthy weight due to family history of overweight or obesity and avoiding/decreasing disease risks. One participant said “My value, I try to keep my weight down because, ah, we have in my family, like [sic], some like [sic] large people. My grandmamma was large on both sides, my mom and my dad [sic] side, and so me, me [sic] and my whole family, we try to control our weight and keep it down.” Another participant concurred, adding “And that’s what I was about to say too. Most of the time it goes back to generation to generation and in my family, there is [sic] heavy people and sometime I am conscious of that, trying to make sure it doesn’t happen to me.” Further consensus came from another participant with “That was what I was saying about the diabetes, you know, and hypertension in my family. That is why I made changes in my eating and I started exercising and I want to stay away from that as long as possible.” One participant voiced valuing doing things she can do to maintain a healthy weight. Another participant stated, “And now my goal has changed to eat enough but not too much but I still have to eat enough.” An additional statement was, “Like to be satisfied to eat for a purpose, not just because it is there.”
Physical Activity

Physical activity beliefs/practices. Some special beliefs about physical activity included the beliefs surrounding the need to have a higher level of physically activity for most participants. A common belief was that health practices regarding physical activity are based on culture, customs, and traditions. The dialogue that ensued regarding physical activity-related special beliefs and practices among study participants included, “Well, number one, you got to eat right, do exercise, keep your health in good shape” “My belief is that … you need to exercise. Exercise is one of the requirements, you know. Even if you eat healthy, you need some form of exercise.” An additional participant voiced “My belief, ah, is that to stay healthy, eat healthy foods and vegetables, drink plenty of water, and exercise.”

The conversation among Jefferson County participants regarding the perceived need for a higher level of physical activity included such statements as “… practices regarding health, just being, not being mobile enough, not being physically active. I think that’s my downfall with health.” Another participant stated a similar perception, “What I should do is, ah, develop a better way of eating and I should be physically active more. Because I am physically active a little bit but not like I need to be.” When the moderator probed this participant “When you say more, what does more mean?,” the participant said “Well, instead of three to four days a week, make it an everyday thing, uh huh, 35 to 40 minutes every day.”

Participants from Claiborne County had beliefs/practices regarding the need or attempt at getting physical activity. However, in most cases, performing physical activity appeared to depend on convenience, especially with most female participants.

Beliefs/practices regarding physical activity for one participant were:
Trying to get some exercise, first thing in the morning or at least before bedtime; trying to do some physical activity every day, whatever the time you can find the convenience to work it in; taking the stairway instead of the elevator; and walking instead of riding to certain locations if it is convenient for you.

Other participants pointed to getting physical activity through (a) working around the house, (b) gardening, (c) parking a distance from one’s destination and walking the distance.

However, physical activity practiced does not total regular physical activity. In relation, one participant from Claiborne County pointed out:

Ok, again, it is a matter of knowing what is [sic] the right thing to do and doing the right thing to do. I know that I need physical activity, more of it but I don’t do it. I mean planned, organized physical activity, no, but I keep myself busy. Like [sic], I like working with my flowers and yard. Like [sic] working around in the house and stuff like that. But organized activity, walking and being in gyms and clubs and things like that, I don’t go to clubs.

Another participant proclaimed “I walk and I park my car you know a distance from the library where I work and I try to walk around and I walk the stairs, you know [sic], and I walk fast, you know [sic], walk as fast as you [sic] can. But as far as exercising, I don’t do it. Exercising, I don’t do.” Another response about getting physical activity was “I don’t have any planned exercise but I feel that I work quite a bit, do a lot of gardening, and I think that I do enough, I have a small garden, small flower garden and by the time I trim a bunch of hedges, I don’t walk but I be [sic] tired and have to stop. Especially, if you’re clipping that hedges and stuff.”

Most male participants from both Claiborne and Jefferson Counties expressed actual practice as well as very strong beliefs in physical activity to stay healthy. Male participants responded to inquiry regarding physical activity in a manner of urgency. All responses included acknowledgement of exercise. Responses included, “Got to have some kind of
workout going everyday” and “You don’t work out if you don’t sweat.” Additional responses included, (a) “eat, get out, and walk,” (b) “Low salt, low sodium, exercise,” and (c) “Exercise three days a week.” A related statement from one male participant was, “You know, you should always get some physical activity.” Other related comments were, (a) “I just stay busy,” (b) “Exercise daily,” and (c) “Don’t eat and just lay down.” However, the perception of one male was, “it depends on the person.”

The discussion among participants from both Claiborne and Jefferson Counties in response to special beliefs/practices regarding physical activity was quite interesting. It appears that for many female participants and a few male participants, certain beliefs regarding physical activity are not practiced on a regular basis. The dialogue is presented for a full review of participants’ perceptions. One female stated “My belief is that we should exercise daily.” A female who indicated a higher level of physical activity added, “And I concur with that and my practices, I try aerobics; excuse me, a couple of days a week. I try, and I try to walk anytime that I can, but I don’t do it like I need to because it should be every day, at least 35-40 minutes a day. I exercise four days a week. A different participant stated “We’re supposed to exercise about 30 minutes a day.” The female participant who appeared to practice her belief about physical activity stated, “Exercise is important and it does make you feel better. If I get to walk, I try to get it in in[sic] the morning time.” Similarly, another participant voiced beliefs in exercising 30-40 minutes daily and that exercise has positive effects such as regulating health problems and providing the opportunity to meditate. Male participants cited beliefs in getting some kind of exercise daily and avoiding eating and just lying down to let food digest.

In addition, one female participant said, “So I believe about exercise for my health is
what I am focusing on now, then I will get a reduction in weight and vice versa.”

Furthermore, this participant said that her blood pressure is lower since she started exercising and cited the belief that exercise regulates any health problem. Her comments included “Yea, yea. Regulate. Just about any health problem, it’s the key and you have time to meditate. When you’re walking, you just have time to do that.”

The extent to which study participants practiced physical activity in unique leisure time habits was discussed. When asked about leisure habits, basically, most females were found to practice sedentary activity. One female indicated some physical activity in leisure habits. She stated “When I can find the time, my leisure is walking. I love to walk. Exercising is very important.” In contrast, the majority of female participants voiced such sedentary leisure habits as reading, watching television, working puzzles, and sleeping. Going to church and Sunday School, to the armory “where the old folks go,” and to the casino, and helping a friend at work when called on were other leisure time habits for female participants. A couple of females cited sleeping as their leisure time habits. In addition, “sitting on the porch” was cited as a leisure habit for one female. In regards, she said, “I’ll be very honest; mine is actually sitting on my porch. That’s where I relax, just outside. I just like the outside, period.” Most male participants cited leisure activities that promoted more physically active activities such as (a) fishing, (b) walking, (c) playing sports, (d) running/jogging, and (e) walking the dog.

Overall, special practices regarding physical activity included (a) participation in irregular physical activity by females such as taking the stairway; walking to convenient locations; working in the house; gardening/cutting hedges, and (b) participation in physical
activity by males that make you sweat every day such as working out or cutting the lawn. Male participants indicated a higher level of physical activity than female participants.

Preferences for physical activity patterns/levels appear to be based on being an African American. The dialogue among participants regarding whether preferences for physical activity patterns/levels are based on being an African American proved to be lively and interesting. With the exception of one male stating, “Not really,” and a few females, the majority of study participants perceived that their preferences for physical activity behaviors are based on being African Americans. Numerous related statements indicate that participants perceived their preferences for physical activity to be based on being African Americans to a great extent. Participants perceived that related practices started early in life. The sentiment was echoed in these participants’ statements, indicating perceptions that their physical activity habits have a lot to do with those of their parents. Participants stated “I think a lot of the way we eat has a lot to do with the way our parents” and “So it is with habits and exercise.” Another participant further explained “when I was growing up, my mother didn’t exercise. She was a great inspiration to me. She worked around the house. If someone was athletic, they were praised for that, for being athletic, but it was never related back to good health.”

**Socioeconomic barriers/promoters regarding physical activity.** Similar to socioeconomic barriers to positive dietary behaviors, household income, education, and neighborhood income and education were found to be major barriers to physical activity patterns/levels of African American adult residents of Claiborne and Jefferson Counties.
Low educational attainment was found to play a role as a barrier to physical activity among study participants. Claiborne and Jefferson Counties’ resident participants stated that a lack of knowledge plays a part in preventing African American adults from engaging in physical activity. In addition, a lack of knowledge of community resources serve as obstacles. Furthermore, a lack of knowledge about the importance of physical activity and types of physical activity to engage in play similar roles.

Low household income in combination with low neighborhood income was quoted as a major barrier to physical activity in both Claiborne and Jefferson counties. Participants from both counties pointed at a lack of recreational facilities, gyms and other fitness facilities in rural parts of the county, and a low income base as factors that prevent African American adults from engaging in physical activity. They further stated that “If the folks in the county want to go to the gym, they’ve got to go 10, 15, or 20 miles in order to get to one. So it’s a lack of recreational facilities that would entice them to exercise.”

It was reported that although Claiborne County has two rehabilitation centers, free services are not provided. Lack of free services/resources in association with the rehabilitation centers were big issues for some of the participants. However, one participant stated “I wouldn’t mind paying, but do they have a trainer down there? I didn’t know they were open to the public.” Other participants agreed that letting the public know what is available would help. Another participant suggested “You can come to the armory, but you have to pay a fee of $25.00 a month or $3.00 a day. Again, it is how we use our resources.”

Specific socioeconomic barriers to African American adults in Claiborne and Jefferson counties engaging in physical activity surrounding neighborhood income and education were (a) a lack of recreational/exercise facilities in the county areas to entice
exercising, (b) lack of or limited sidewalks, bike-riding trails/walking tracks, exercise facilities in rural areas and some districts, (c) time constraints, (d) no provision of free resources/services at rehabilitation centers, (e) lack of knowledge of public services (f) lack of transportation services to physical activity centers, especially free transportation services, (g) low income base, (h) more places to eat are available than places to exercise, and (j) economic problems in travel to exercise facilities posed by high unemployment and low incomes.

More specifically, conditions in the targeted counties that prevent African American adults from engaging in physical activity were cited to be a lack of gyms or health clubs within 29 miles and having to exercise on one’s own; travel involved in getting to a gym to exercise; and economic factors. The majority of Jefferson County participants voiced the obstacle of not having a safe place to exercise. One participant said, “…there is no place to exercise. We basically exercise on our own.” One participant from Jefferson County said, “It’s more food places than it is exercise places.” In association, one male participant stated, “All we do is eat and drink and party.”

With effects of neighborhood income and education, most participants pointed out the need for more sidewalks, walking tracks, and trails to ride bikes. According to study participants, none of these resources are available in rural areas of the targeted counties. The majority of participants agreed that more people need safer and easier access to walking trails.

As with dietary behaviors, participants suggested that it could be time that is the hindrance to engaging in physical activity. Due to a lack or limited opportunities or safety for
physical activity in the counties, time limits for travel to facilities for safe physical activities are obstacles.

One participant in the first group of females from Jefferson County was very vocal about residents being lazy as a barrier affecting weight status and physical activity as well as dietary behaviors. Other participants from Jefferson County in this group voiced lack of income and safety, especially with the element and nature and no access or limited access to gymnasiums to be specific barriers affecting weight status and physical activity patterns/levels of the residents. Specific statements to that effect were “Yea” in agreement with the “being lazy” statement, continuing with “and a lack of income, because it costs to do any type activity and especially living in Jefferson County and we have to travel. After one participant in this group interjected “You can do like that but we can, we can walk if the snakes allow us,” other participants agreed that the element, such as the chance of encountering a snake while walking in rural Jefferson County was a barrier. Afterwards, the participants that stated “We can walk,” earlier said, “to a certain degree” for her. She added, “Like some people won’t walk, you know, “I’m scared of a snake and I won’t walk.” I am going to walk. I’m going to have a stick. If I see it before it sees me, I’m going to kill it and I’m going to continue to walk.”

Many participants voiced concern about dangers encountered with walking. One participant stated:

And then when you do walk, most of the time you’re walking, in a rural area on property. You don’t have sidewalks or tract fields to walk on to prevent the nature kind of things. I’ve seen people walking and a bear may pop out or a bobcat. You’re walking in a country area. We’re in a rural area.

Another participant further stated “I walk on the main highway, highway 33. There’s
no place good for you to walk. That’s the main highway and it is not safe.” Responses became a continuous chain of echoes regarding unsafe places to exercise. Examples of participants’ repeated sentiment were, (a) “It is not safe,” (b) “That’s right. We have no place to walk,” (c) “there is nowhere to go to exercise,” (d) “lack or limited physical things to do,” and (e) “…There is [sic] not a lot of physical things to do but everywhere you go, there is a place to eat.” Another participant gave confirmation, saying “You can find more places to eat than to exercise.”

As far as conditions in Claiborne and Jefferson Counties that promote physical activity, at the onset, participants perceived no conditions in those counties that promoted physical activity. On second thought, they recalled that there was a gym where they could go and exercise. In addition, sometimes the adult residents of the community get together somewhere and exercise. Participants also recalled that the counties have walking paths in some areas. Claiborne County focus group participants talked about the county having buses run to provide transportation to the rehabilitation centers if enough people wanted to go to the centers. In addition, exercise classes are provided for senior citizens and the people can attend the exercise classes, even if they are not on the program. Participants report that advertisements about the program have been in the paper.

Motivators for physical activity. Study participants indicated varied factors that will motivate African American adult residents of Claiborne and Jefferson Counties to have regular physical activity. According to focus group participants, the greatest motivation for African American adult residents of Claiborne and Jefferson Counties to participate in weight reduction programs would be having (a) trained people to educate the community, (b)
internal motivation to lose weight, (c) free classes, activities, and membership, (d) a program offering a combination of food preparation demonstrations with the physical activities, (e) and a well-organized community action program. Other motivators included having (a) exercise facilities with a trainer, (b) free transportation and access to existing facilities, and (c) social support systems. Simply put by one participant from Claiborne County, participants would be motivated by “offering the means of changing.” One participant said, challengingly, “Put a facility in the county and have a person or trainer there to tell us the area that we are interested in working on. If I want to lose my stomach, I don’t really know what exercise to do to lose my stomach. I want a trainer to help me.”

Participants stated that having a facility for exercising, such as a fitness center, and a well organized community action program would be motivators for physical activity. Participants also indicated the need for trained people to educate community residents about crucial physical activity factors. Basic conditions in the counties that promote physical activity were considered to be the occasional formation of groups to exercise and availability of walking paths in some parts of the Claiborne County. One female participant from Jefferson County simply said “having people to come around” would promote physical activity. In addition, participants with small children or grandchildren need some type of facility where children can be taken and entertained while participants engage in physical activity.

Values regarding physical activity were discussed to determine the extent to which participants’ values serve as motivators for physical activity. All participants indicated valuing physical activity. Values regarding maintaining a healthy weight served as motivators for physical activity among some participants, especially males. According to one
male participant “… you eat heavy you must exercise. You must do something, just even walk.”

Other participants further cited valuing keeping weight down due to family history of overweight or obesity and avoiding/decreasing disease risks. One participate said “My value [sic], I try to keep my weight down because, ah [sic], we have in my family, like [sic], some like [sic] large people. My grandmamma was large on both sides, my mom and my dad side, and so me [sic], me [sic] and my whole family, we try to control our weight and keep it down.” Another participant concurred, adding “And that’s what I was about to say too. Most of the time it goes back to generation to generation and in my family, there is [sic] heavy people and sometime I am conscious of that, trying to make sure it doesn’t happen to me.” Further consensus came from another participant with, “That was what I was saying about the diabetes, you know, and hypertension in my family. That is why I made changes in my eating and I started exercising and I want to stay away from that as long as possible.” In addition, one participant valued doing things that can be done to maintain a healthy weight.

Other responses reflecting motivators to get African American residents of the targeted counties to do regular physical activity included controlling health problems and getting off medication. Similar to perceptions regarding motivation for healthier eating among adult residents of Claiborne and Jefferson Counties, overall, the basic idea was that providing the means of changing would be the greatest motivation for African American adults to do regular physical activity.

Participants in the first group of females from Jefferson County discussed being motivated to do regular physical activity to lower disease risk, get off medication, enjoyment of exercise, and perception of being fat. One participant attests to these ideas in stating:
Well, that’s where my motivation came from, when I had a sister right over me, some eight or nine years ago that was diagnosed with diabetes and I know it was time for me to step up to the plate or you get right or get left. I just don’t want that debilitating disease. I have enough just dealing with the high blood pressure, which is okay. I know if I get the extra pounds off me, I can be more active physically and I can probably get off the medication. It is a possibility but it is hereditary, too.

Only one female indicated that weight gain itself would promote motivation to do regular physical activity. This participant stated, “For me personally, I just really enjoy exercise and I try to maintain a certain weight. Whenever I get to a certain weight, for me, I feel fat. That’s what motivate [sic] me to exercise and work out.”

Some participants from Jefferson County perceived that displaying a stay healthy sign on a billboard and building fitness centers in the county will motivate African American adults to do regular physical activity. One participant said, “If they can build 10-12 restaurants, they can build 1-2 fitness centers.” A great motivation for African American adults to participate in weight reduction programs in Jefferson County, according to participants, would be encouragement, feeling confident, and getting statistics and knowledge about the weight status of county residents. For example, one participant said, “Give that statistic you gave about being the county with the greatest overweight. They may want to do something about that.”

A female participant stated:

I am going to tell you about my community and I am going to talk straight. If you say something about money or something free, they are there, but if you show them something on a chart or statistics standpoint how it would benefit your health and this will, they will come for awhile, but then they’re going to fall back. ‘I’m lazy.’ But if you say, “I’m going to give you $5.00 every day you come to exercise, “then, you are not going to have a place to hold all my folks. The campus ain’t going to hold them.

Another participant concurred with the statement, “We have to give some incentive or
motivation. It can be, like, the one who loses the most weight.” Another participant said in agreement, “Like the Biggest Loser.” This exchange continued with another participant echoing, “Like the Biggest Loser, where they get some kind of reward.” Then a different participant said:

I have seen groups try to come together for activities like that. They all paid $100.00 and who ever lost the most weight received the pot. Yea, so that motivated a group of women. But after that passed, though. So some type of incentive. Once they stopped doing the money thing, you know, the income or economic, you know. There have been people who tried to have exercise class but they started charging $2.00 or $5.00 a week and people stopped coming.

Other statements of agreement included, “That’s right because you have to drive to these places. That’s gas. I just walk and a few of us go into the fire station out there where I live and we exercise with a couple of tapes we have” and “They wanted to exercise but people didn’t want to come because they had to pay $25.00 a month.” One participant who resides in Jefferson County acknowledged that there are health clubs in Adams and Warren Counties that are open “24-7” but participants have to drive there and then pay the membership. She added, “There is just no motivation for me to drive to Natchez for 20 minutes every day by the time I get off work.”

**Weight Reduction Intervention Strategies**

Strategies to employ in weight reduction programs vital to enticing African American adults to actually participate in a weight reduction program in Claiborne and Jefferson Counties were discussed in great detail. The dialogue among the participants in reference to needed strategies surrounded program (a) leader/presenter, (b) time, location, and frequency, (c) session length, (d) theme, (e) activities/education methods, and (f) publicizing. A full exploration of participants’ perceptions provided numerous and varied ideas to consider in
developing a weight reduction program for residents of Claiborne and Jefferson Counties in Southwest Mississippi.

**Program leader/presenter.** From interpretation of study participants’ responses, weight reduction intervention strategies needed by African American adult residents of Claiborne and Jefferson Counties include a health professional that can monitor eating and exercise. Participants need someone skilled in subjects of interest such as (a) weight loss, (b) proper nutrition, (c) diseases common to African Americans, (d) food preparation, and (e) exercise activities as a program leader/presenter. Some participants further perceived the need for a program leader with a degree such as a dietitian or nutritionist. All participants indicated the need for a trainer who is athletic for physical activity. However, the need for someone of a race other than African American or a person who participants idolize to lead the program was indicated by the younger participants. The older participants indicated that they had no issue with ethnicity/race regarding leadership.

During the focus group interview about the weight reduction program leader/presenter, one female participant said, “We need someone who will hold us accountable, too” to lead or present the program. At this, one another participant replied, “The only person who can hold me accountable for my weight loss or whatever is me. It’s just me.” Another participant responded, “I am motivated when I am in competition. If I am in competition with all of you all around the table, I feel as though if *sic* I had a teacher and I go three to four days a week and he push me to the limit…” When the moderator further probed regarding that statement with the response, “You said he. So do you think men would be better?” the participant said, “Not necessarily. No, I don’t. There are women who are very firm in teaching aerobics or what-have-you.” However, four participants agreed that they wanted someone who looks like
Ray Lewis, someone who is athletic, “an athlete looking like a person who’s in training all the time.” One participant further responded, “If you get someone athletic, that’s going to motivate. I want to be like him.” The participant who responded earlier regarding being accountable for her stated, “It’s still going to be within you, yourself.” Another participant said, “I don’t want a teacher that just because she teaches in the Home Economics Department coming to me and if she is not doing it herself.

The factor of race/ethnicity as a program presenter or leader became an issue when one of the younger female participants said she envisioned a Caucasian in that role. The older participants indicated that race/ethnicity of the leader/presenter will not be an issue with them. One of the older participants said “As long as that person is qualified and is there to do what they’re hired to do, I can follow.” Another participant said, “I don’t think race would be an issue as long as that person is there for their best interest.” However, the participant who indicated that race would be an issue earlier still said, “yes” to race being an issue, adding, “Young people don’t pay attention to their own color, us being black.” She perceived that with a black teacher and a white teacher, teaching the same thing, young African Americans will pay more attention to the white teacher “because they have that stigma; this stereotype.” One other participant agreed with this idea.

Similar to the younger females, younger male participants from Jefferson County considered race as an issue with program leadership. Male participants suggested someone of a different race or someone residents admire or idolize should lead the program. Male participants perceived that “African Americans tend to listen to people of other races and that “they will go to a white.” Examples provided regarding someone residents may admire or idolize included one’s pastor or an athlete. The male participants also agreed with the female
participants in wanting someone who has a higher education and knowledge about the vital issues to lead the program. One participant suggested the “community” should lead the program. Thus, community involvement is desired.

**Time, location, and frequency of program offering.** Participants’ suggestions regarding the when (time), where (location), and how often (frequency) of program offering included offering the program after 5:00 p.m. In fact, one female participant said firmly, “and it would have to be after 5:00.” Favorable suggested locations for offering the program for consideration included (a) churches, (b) community centers, (c) a constructed facility in each of the five districts in Claiborne County, (d) expanded existing facilities, (e) local gyms, where available, (f) fire stations, (g) abandoned buildings, and (h) the schools. When discussing where to offer the weight reduction program, some male participants were in favor of offering the program at school or in an abandoned building. One participant stated, “If you do it in a school, you would get people in the school and people who are not in the school.” Offering the program in a church/church fellowship hall appeared to be a favorite with both male and female participants. Although some participants spoke heavily on using an existing building, many participants also liked the idea of having a building constructed. One participant strongly suggested, “You know, I think it would be a good thing to construct a building just for that and have it opens five days, seven days a week. That will become a part of the community, a community focus.” Another participant exhibited a strong interest in having facilities in each of the five districts of Claiborne County.

For frequency or how often to offer the program, at least three days per week and three to four days per week were favorable suggestions by most participants. Many females and one male suggested offering the program seven days per week, initially. Finally,
participants were in agreement that the program should be offered every week day. Yet, some males suggested twice daily every week day, offering one session in the morning for morning people and one in the evening for evening people.

For program session length, many of the participants suggested that the program sessions need to last one hour. Furthermore, some female participants specifically indicated that program sessions should last “no longer than one hour.” However, in regards to the length of sessions, participants discussed exceptions that may apply to the suggested length of time for offering program sessions. One participant pointed out “Depend on what it is. Don’t you think? If someone is just standing up there talking, you [sic] should be given no more than an hour, 45 minutes probably, but if you [sic] have activities, cooking and serving, then they need two hours. It depend [sic] on activities.” Another participant stated, “I say two hours is about right” regarding the length of time program sessions need to be held. He explained, “Because the program would be dealing with physical things too, that will be one hour a piece.” Another participant suggested that sessions should last “as long as it takes to give them what they need.”

Program theme. Program themes that highly appealed to participants were (a) Resource Center, (b) Healthier Living for All Citizens, (c) Healthy Lifestyle/Healthy Life Center, (d) Well-Living, and (e) Shape-Up Mississippi. These suggestions appeared to have equal appeal within the specific group in which they were suggested. Therefore, they were given equal consideration.

Program activities/education methods. Major theme-related strategies interpreted regarding program activities/education methods needed in a program for African American adults residing in Claiborne and Jefferson Counties included a combination of workshops,
seminars, and cooking demonstrations. A major perception presented by participants is that activities/educational methods used should be based on participants’ age, needs, and interests. Other suggestions were to incorporate nutrition education sessions with nutrition booklets/materials and provide physical activities opportunities and resources.

A participant from Claiborne County perception is provided in the following statements:

I guess is [sic] to offer a class or activity where they would be free to come. They would feel comfortable coming. And I think if you did the exercise part, all of that, and along with that, offer some [sic] the correct foods. I mean a variety of the little demonstration foods to go with the exercise. If we could get, I feel if we could get some community folks to come in, all right, and they go through the exercise routine, and [sic] then you give them the correct food that they need to eat for that calorie count, and [sic] teach them how to count calories and teach them how to do, if you are going to have this, you may not need this. Or if you are going to have this, you may not need that. And [sic] I think if we just educate them and [sic] then offer them something and provide them the means of it, that they would do it. They would be willing to change.

Additional statements bearing the needs of participants in a community weight reduction program were presented. Other participants voiced the need for education that goes beyond telling about nutrition, to showing how to prepare food. Having slides shown was also a suggestion. One participant acknowledged a low-fat, low sugar dessert that the researcher had made and served for the participants’ lunch with the statement “that’s a good example.”

With further response to the activities or education methods that need be used, one participant stated:

Ah [sic], if that was me, I would have someone, probably skilled in that area, where they can bring some information on how they can lose the weight, instead of more like [sic] gaining. I would have someone to come in, probably outside, if you can’t get the inside agency, or somebody to come in and bring in the proper nutrition that you could lose weight because that’s what the program of losing weight [sic], keep it down.
Statements from another participant included, “I think the program should consist of someone talking about diseases that are common to us. Uh [sic], a program that would also show us how to compare the food, like [sic] cooking could be part of that program. Like you were saying and also exercise.”

A female in the second female group from Claiborne County presented her vision for program activities or education methods in a dream-like manner. This participant stated:

> We have a kitchen just like the one you have downstairs, that’s in sections. Remember now that I am a home economics person so I believe in this stuff. And [sic] a person would be shown how to cook healthy, how to use the equipment, how to place it in the house, a community focus. I think it would be a beautiful thing out because then we would have young people coming in there whose 10, 12, 13, 14, 15, 16, who will be starting families and can transfer that knowledge on to families, because we have a breakdown in the transformation of knowledge now. Because when they took home economics out of the schools and all this, see people stopped learning and when you get things by word of mouth, you’re not getting that professionalism she was talking about.

Another participant added excitedly, “I want to learn how to make a healthy banana pudding but we’ve open seven days a week, but [sic] you would schedule a day to do that.”

**Program advertisement.** Various means of publicizing the program were suggested by participants. Suggestions included advertising it on television and the radio. Using word-of-mouth, door-to-door contact, and providing flyers to publicize the program through churches and other community groups were also suggested. Other suggestions included publicizing the weight reduction program through the news media, newspapers, and data bases. At the discussion of using data bases, a participant voiced her opinion that “We need to stop thinking that everybody has a computer, too. You have to call them.”
Summary

This qualitative focus group study explored socioeconomic barriers to weight reduction among African American adults residing in two Southwest Mississippi Counties, Claiborne county and Jefferson County. Data gathered through six focus group interviews was based on perceptions of study participants regarding barriers to positive dietary behaviors and physical activity patterns/levels.

Results of data analysis indicated that household income, education, neighborhood income and education posed major socioeconomic barriers to healthy dietary behaviors and physical activity for this targeted population. Chapter 5 further explains study data results with discussion of the study overview and qualitative findings regarding dietary behaviors and physical activity patterns/levels of participants. The implications for practice, limitations of the study, and recommendations for future research are also included in chapter 5, ending with concluding statements on the chapter.
CHAPTER 5. DISCUSSION

This chapter provides a culmination of the focus group study regarding socioeconomic barriers to weight reduction behaviors among African American adults from Claiborne and Jefferson Counties in Southwest, Mississippi. The first part of the chapter surrounds an overview of the study and study qualitative findings regarding dietary behaviors and physical activity patterns/levels of participants. The latter part of this chapter covers implications for practice, limitations of the study, and recommendations for future research. The chapter ends with the chapter conclusion.

Overview of the Study

The purpose of this research study was to explore socioeconomic barriers to overweight and obesity reduction relative to using healthy dietary behaviors and physical activity among African American adults residing in two Southwest Mississippi Counties, Claiborne and Jefferson Counties. Research data revealed excessive prevalence of overweight and obesity among African American adults in Mississippi, overall, with the highest prevalence in Jefferson County (Mississippi Hospital Association, 2004; Trust for America’s Health, 2007). Claiborne County is adjacent to Jefferson County and has a level of overweight and obesity very similar to that of Jefferson County. However there is limited research data on socioeconomic barriers impacting overweight and obesity reduction behaviors in African American adults in these counties. In fact, to the researcher’s knowledge, this study is the only study to date undertaken to find socioeconomic barriers to overweight reduction among African American adults as perceived by Southwest Mississippi residents of Claiborne and Jefferson Counties. A qualitative methodology using focus group interviews was employed in this study. Numerous barriers specific to overweight and obesity
were identified by African American adult study participants. Data collected from African American adult participants who reside in Claiborne and Jefferson Counties are congruent with the research discussed in chapter two. Major findings are identified in the following chapter sections.

**Findings**

The research questions examined in this study were answered through theme development from the six focus group interviews. Research findings in this section resulted from perceptions provided by both African American males and females. In addition, answers to questions are composed of focus group participants’ responses from both Claiborne and Jefferson Counties. Research study questions with accompanied findings are presented in reference to the four research questions used to guide the design of this study.

Research question 1: Is there a relationship between the incidence of overweight and obesity risk factors and socioeconomics specific to African American adults in Claiborne and Jefferson Counties?

Thematic results from focus group participants’ comments indicated that there is a relationship between the incidence of overweight and obesity risk factors specific to African American adults in those counties. Participants spoke of the high impact of traditions and customs surrounding the African American heritage regarding dietary and physical activity behaviors. Participants stated that their and other county residents’ eating and cooking methods are quite different from that of other races/ethnic groups. For example, African American residents of Claiborne and Jefferson Counties eat heavy food, fried/greasy foods, and have many foods in the same meal. Regarding physical activity, participants also indicated that their behavior stems from the way of life while growing up. For example, one
participant said that while growing up, she noticed that individuals who were athletic were praised, but being athletic was never related back to health. Although many participants voiced a belief in eating healthy foods and having regular physical activity, they admit that it is hard to break the cycle of behavior learned from their parents and other ancestors.

Research Question 2: What do African American adults who reside in Claiborne and Jefferson Counties perceive to be socioeconomics barriers that affect their adiposity levels, dietary behaviors, and physical activity patterns?

Socioeconomic barriers that African Americans adults who reside in both Claiborne and Jefferson Counties perceive to affect adiposity levels, dietary behaviors, and physical activity patterns include (a) income, (b) education, and (c) neighborhood income and education. Sociodemographic factors such as race/ethnicity, gender, and age are highly interrelated with socioeconomic factors as in terms of being potential barriers to weight reduction behaviors among the targeted populations.

**Adiposity Levels**

Focus group responses reflecting income as a socioeconomic barrier impacting adiposity levels include (a) low income of African American adult residents, (b) high unemployment rates among African American adult residents, (c) economic problems in buying healthy foods posed by high unemployment and low incomes, (d) the high cost of food at grocery stores in the counties (e) food-related traditions, customs, and beliefs, (f) participants’ perception that healthy food costs more money, and (g) no provision of free resources/services at exercise/recreational centers.
Responses reflecting the impact of education as a socioeconomic barrier impacting adiposity levels behaviors were lack of knowledge of type of foods to eat/healthy foods to eat, nutrition, and the relationship between physical activity and health.

Responses reflecting the impact of neighborhood income and education as socioeconomic barriers impacting adiposity levels were (a) a low income base, (b) low educational background of residents, (c) high rates of unemployment, (d) economic problems in buying healthy foods posed by high unemployment and low incomes, (e) the high cost of food at grocery stores in the counties, (f) lack of nutrition education provided for residents, (g) bad food places/mostly fried foods are sold in foodservice establishments, (h) numerous places to eat, especially fast food establishments/more places to eat are available than places to exercise and residents do a lot of eating, (i) lack or limited sidewalks in, bike-riding trails, and walking tracks, especially in rural areas, (j) lack of/limited exercise facilities in some districts to entice exercising, (k) lack of or limited public services, (l) lack of transportation services to physical activity centers, (m) residents’ fear of walking due to dangers involved with walking on the roadside or dealing with nature elements (snakes, bears, bobcats, etc), and travel to exercise facilities posed by high unemployment and low incomes, (n) time constraints surrounding time costs to travel to physical activity facilities, and (o) lack of free resources/services including transportation services to physical activity centers. Some male Jefferson County residents indicated that the neighborhood environment is conducive to African American adult residents doing a lot of eating, drinking and partying.

Focus group responses reflecting beliefs related to cause, timeline, controllability, and consequences of obesity as socioeconomic barriers impacting adiposity levels include the perception that “food eaten has a bearing on weight” but “weight status doesn’t indicate
whether one is healthy or not” and “residents can’t afford to buy healthy foods because healthy foods cost more money.” Responses reflecting weight control related self-efficacy as a socioeconomic barrier impacting adiposity levels was the difficulty in breaking the cycle of behavior learned from parents/ancestors.

Focus group responses reflecting race/ethnicity as a socioeconomic barrier impacting adiposity levels were (a) the high impact of food-related traditions, customs, and beliefs surrounding the African American heritage regarding dietary behaviors, cooking methods, and the difficulty in breaking the cycle of physical activity behaviors learned from parents/ancestors, (b) economic problems in buying healthy foods posed by high unemployment and low incomes, (c) the high cost of food at grocery stores in the counties, and (d) lack of nutrition knowledge including knowledge of type of foods to eat/ healthy foods to eat.

Focus group responses reflecting gender as a socioeconomic barrier impacting adiposity levels included a value for eating for a purpose or eating enough to be satisfied, not just because it is available cited by male participants from Jefferson County. Furthermore, male participants indicated practicing eating behavior beliefs more than female participants. Male participants indicated participating in physical activity more than the female participants.

Focus group responses reflecting age as a socioeconomic barrier impacting adiposity levels surround eating behavior based on familiarity, tastes, and health beliefs, “especially for comfort provided in eating ethnic foods that recall family meals and pleasant times, being more influential on older participants’ food choices. Older participants were less likely than younger participants to diet for the sake of weight control, but older participants were more likely to diet to lose weight in pursuit of medical goals such as controlling diseases and
getting off medication. Younger participants perceived the race/ethnicity of program leaders/presenters to be an issue in promoting participation of younger residents. Younger participants indicated that an athletic physical activity director/trainer of a race/ethnic group other than African American would be more effective with younger African Americans. Older participants indicated that race/ethnicity regarding a physical activity director/trainer would not be an issue with them.

**Dietary Behaviors and physical Activity**

Focus group responses reflecting income as a socioeconomic barrier impacting dietary behaviors and physical activity patterns/levels include (a) economic problems in buying healthy foods posed by high unemployment, low incomes, and high poverty levels among county residents, (b) distorted perceptions residents have regarding food such as the perception that organic food is more nourishing and healthy food costs more money, therefore it costs more to eat healthier, (c) the high cost of food at grocery stores in the counties, (d) food-related and physical activity-related traditions, customs, and beliefs, (e) difficulty of traveling to distant supermarkets and exercise facilities posed by high unemployment and low incomes, and (f) lack of free resources/services including transportation services to physical activity centers.

Socioeconomic barriers to healthy dietary behaviors and physical activity were interpreted from study participant’s responses. Responses reflecting the impact of education as a socioeconomic barrier impacting dietary behaviors were lack of knowledge of type of foods to eat for good health and lack of knowledge about nutrition in general. Responses reflecting the impact of education as a socioeconomic barrier impacting physical activity
patterns/levels of residents of the targeted counties were lack of knowledge of the relationship between physical activity and health.

Responses reflecting the impact of neighborhood income and education as socioeconomic barriers impacting dietary behaviors and physical activity surround (a) low income base of the targeted counties, (b) high unemployment and poverty rates among African American adult residents, as well as many other county residents, (c) economic problems in buying healthy foods posed by high unemployment and low incomes, (d) the high cost of food at grocery stores in the targeted counties, (e) low educational attainment of many residents in the targeted counties, (f) “bad food places” and “mostly fried foods are sold in foodservice establishments”, (g) a low variety of foods available in stores in the targeted counties, (h) lack of reliable and free transportation services to supermarkets and exercise facilities, and (i) numerous fast food establishments for eating, creating a neighborhood environment where more places to eat are available than places to exercise. The number and convenience of fast food establishments contribute to an atmosphere that is more conducive to residents eating a lot of unhealthy foods, including high fat and sugar contents of foods eaten.

Other responses reflecting the impact of neighborhood income and education as socioeconomic barriers specifically impacting physical activity included (a) physical activity-related traditions, customs, and beliefs, (b) lack or limited sidewalks in, bike-riding trails, and walking tracks, especially in rural areas, (c) lack of/limited exercise facilities in some districts to entice exercising, (d) no provision of free resources/services at exercise/physical activity centers, (e) lack of exercise facilities, (f) lack of transportation services to physical activity centers, and (g) residents’ fear of walking due to dangers
involved with walking on the roadside or dealing with nature elements (snakes, bears, bobcats, etc).

Focus group participants responses reflecting beliefs related to cause, timeline, controllability, and consequences of obesity as socioeconomic barriers impacting dietary behaviors and physical activity included (a) the perception that “food eaten has a bearing on weight” but “weight status doesn’t indicate whether one is healthy on not” and (b) “it costs more to eat healthy” and, therefore, participants perceive that they “must substitute foods that may not be healthy ” and participants buy food based on foods they can get the most of for the comparable amount of money, (c) low variety of foods are provided in county grocery stores, (d) numerous fast food places to eat, termed, “bad food places” and other restaurants are readily available to county residents and mostly fried foods are sold in the foodservice establishments, (e) lack or limited places to exercise are readily available to residents, (f) lack or limited of transportation and other needed services to acquire healthy food and physical activity, especially free resources, and (g) customs and beliefs regarding dietary behaviors and physical activity, as reflected in the statement, “Residents do what they have always done.”

Additional responses reflecting beliefs related to cause, timeline, controllability, and consequences of obesity as socioeconomic barriers impacting physical activity were (a) residents’ lack of initiative or willpower to exercise on their own, (b) lack of physical activity support groups, (c) residents’ fear of walking due to dangers involved with walking on the roadside or dealing with nature elements such as snakes, bears, bobcats, etc., and (d) a distorted perception of weight status. For example, from schematic drawings, most participants indicated those of overweight or obese status to be normal weight status. Thus,
the majority of African American adult participants from Claiborne and Jefferson Counties accepted what is clinically categorized as overweight/obesity as normal weight.

Eating and physical activity self-efficacy is closely associated with beliefs related to cause, timeline, controllability, and consequences of obesity. Focus group participants’ responses reflecting eating and physical activity behaviors self-efficacy as a socioeconomic barrier impacting dietary and physical activity behaviors surround the difficulty in breaking the cycle of cooking, eating, and physical activity behaviors learned from parents/ancestors. Also, customs and beliefs, as reflected in the statement, “Residents do what they have always done,” play a high role. Additional responses reflecting physical activity self-efficacy as a socioeconomic barriers to weight reduction were associated with (a) residents’ lack of initiative or willpower to exercise on their own, (b) lack of a social support system, (c) residents’ fear of walking due to dangers involved with walking on the roadside or dealing with nature elements (snakes, bears, bobcats, etc), and (d) residents’ unwillingness or inability to pay for physical activity services.

Focus group responses reflecting race/ethnicity as a socioeconomic barrier impacting dietary and physical activity behaviors were (a) the high impact of food and physical activity-related traditions, customs, and beliefs surrounding the African American heritage, (b) low education attainment of many African American adult residents, (c) low household incomes of many African American adult residents of the targeted counties, (d) high rates of unemployment and poverty, (e) economic problems in buying healthy foods posed by high unemployment and low incomes, (f) the high cost of food at grocery stores in the counties, and (g) lack of or limited nutrition knowledge, including what constitutes as healthy foods.
Focus group responses reflecting gender as a socioeconomic barrier impacting dietary behaviors and physical activity included a value for eating for a purpose or eating enough to be satisfied, not just because it is available cited by male participants from Jefferson County. Furthermore, male participants indicated practicing eating behavior beliefs more than female participants. In addition, in reference the impact of gender on physical activity patterns/levels there was limited physical activity among female participants. Male participants indicated practicing physical activity beliefs more than female participants. Although both female and male participants cited valuing physical activity, most females did not always act on that value.

Focus group participants’ responses reflecting age as a socioeconomic barrier impacting dietary behaviors and physical activity surround eating behavior based on familiarity, tastes, and health beliefs, “especially for comfort provided in eating ethnic foods that recall family meals and pleasant times, being more influential on older participants’ food choices. Older participants were less likely than younger participants to diet or participate in physical activity for the sake of weight control, but older participants were more likely to diet to lose weight in pursuit of medical goals such as controlling diseases and getting off medication. Younger participants perceived the race/ethnicity of program leaders/presenters and physical activity director/trainer to be an issue in promoting participation of younger residents. Younger participants indicated that an athletic director and nutrition educator of a race/ethnicity other than African American would be more effective with younger African American adults. Older participants indicated that race/ethnicity regarding an athletic director/trainer or nutrition educator would not be an issue with them.
Research Question 3: What are values, attitudes, and perceptions that Claiborne and Jefferson County African American adult residents hold about overweight and obesity, eating behaviors, and physical activity?

Major responses about values, attitudes, and perceptions held regarding weight, eating behavior, and physical activity include the value for (a) a healthy weight, (b) healthy eating behavior, and (c) exercise/physical activity. More specially, participants valued (a) controlling weight/keeping weight down/maintaining a healthy weight, (b) good health behaviors to prevent certain diseases. Participants voiced valuing all stated health factors. However, female participants perceived that food eaten has a bearing on weight, but weight status doesn’t indicate whether one is healthy or not. Male participants valued eating for a purpose, not just because it is available.

Research Question 4: What intervention strategies are needed by Claiborne and Jefferson Counties’ African American adult population to promote overweight and obesity prevention/reduction behaviors?

Vital intervention strategies needed by Claiborne and Jefferson Counties’ African American adult population to promote overweight and obesity prevention/reduction behaviors were outlined by participants in their discussion about motivation for residents to (a) eat healthier, (b) do regular physical activity, and (c) participate in weight reduction programs in the county. Additional information regarding specific needs of residents was provided as participants described what they would include in a program on healthy eating and physical activity in reducing weight in their county of residence. Participants were very specific in describing motivators for weight prevention/reduction behaviors among African American adults residing in Claiborne and Jefferson Counties.
Based on major themes interpreted, intervention strategies needed by Claiborne and Jefferson Counties’ African American adult population to promote overweight and obesity prevention/reduction behaviors are (a) having trained/skilled people to educate the community about food and how to prepare it; someone with a degree such as a dietitian or nutritionist, (b) providing a social support system/organized group to motivate each other, (c) having an exercise facility where children can be taken and entertained while parents/grandparents exercised, (d) having a well organized community action program set up by county administrators, (e) promoting internal motivation for participants to lose weight such as incorporating some type of competition among program participants, (f) offering free classes and activities, and (g) providing a program offering a combination of food preparation demonstrations with physical activities.

Study participants indicated the need for program leaders or presenters including a health professional who can monitor eating and exercise/someone skilled in subjects of interest (weight loss; proper nutrition; diseases common to African Americans; food preparation; exercise activities, etc.) and (b) a trainer who is athletic for physical activity.

The program needs to be offered after 5:00 pm, in (a) churches, (b) community centers, (c) a constructed facility, if possible or expanded existing facilities; at least three days per week. Although males suggested offering program sessions for two hours (one hour for nutrition education; one hour for physical activity), some females specifically indicated “no more than an hour.” Other females indicated that the length of program sessions should vary depending on the type of session being presented.

The program theme needs to be selected from major themes presented by study participants. Themes suggested by participants were (a) Resource Center, (b) Healthier
Living for All Citizens, (c) Healthy Lifestyle/Healthy Life Center, (d) Well-Living, (e) Shape-Up Mississippi, and (f) Wellness Center. Incorporating a theme provided by study participants will promote a sense of ownership within participants and heighten the level of program participation.

Vital program activities/education methods included a combination of nutrition education workshops, seminars, and cooking demonstrations. Strategies needed to motivate African American adult residents of Claiborne and Jefferson Counties to eat healthier included providing components to assess participants’ health risks, social support systems, benefits of maintaining a healthy weight, and information on selecting healthy choices in restaurants.

Other program strategies needed include (a) having exercise facilities, (b) free transportation and access to existing facilities, (c) social support systems, (d) free classes/activities/membership, (e) a combination of food preparation demonstrations with the physical activities, and (f) nutrition education sessions with nutrition booklets/materials.

Study participants also suggested that program activities/educational methods used should be based on participants’ age, needs, and interests.

Furthermore, participants indicated motivation for healthier eating would be increased by (a) expanding the days the Farmer’s Market is open to include week days to get more fresh fruits and vegetables, (c) providing healthy food samples in community stores, and (d) having stores post advertisements for healthy eating. Overall, the greatest motivation will be an outcome of providing the means of changing.

Means of publicizing the program include (a) advertisements on television, radio, and in newspapers, (b) flyers given to churches and other community groups, and (c) word-of-mouth/door-to-door contact.
Relationship between Research Findings and Prior Research

The themes identified in this focus group study of socioeconomic barriers to overweight and Obesity Reduction among adults in Claiborne and Jefferson counties, Southwest Mississippi are aligned with much of the existing knowledge regarding adiposity levels, dietary behavior, and physical activity patterns of African American adults. The tendency to eat high-calorie foods and large quantities of foods were found to be huge barriers for participants in this focus group study. In addition, study participants struggled with the opportunity and resources to perform regular physical activity. Barriers surrounding family traditions and cultural practices of eating high-calorie foods or large quantities of food in the same meal are aligned with current literature findings. Flore and colleagues (2006) and Larson and colleagues (2006) found that overweight and obesity results from an imbalance between food consumed and physical activity. In addition, national data indicated a pattern of increased calorie consumption by adults without an increased physical activity level (Larson et al.).

A variety of other barriers to overweight and obesity reduction among African American adults were found to be in common with current literature. Although some factors are not directly considered socioeconomic factors, such factors as lack of positive support systems, time constraints, caregiver responsibilities, and food-centered family traditional habits are commonly perceived as socioeconomic barrier correlates to weight reduction behaviors (Klohe-Lehman et al, 2006). While all participants indicated valuing a healthy weight, healthy dietary habits, and physical activity, activating the value system for weight reduction was primarily because of health risks for many participants, especially female participants. Klohe-Lehman and colleagues acknowledged that such psychosocial factors
and intrinsic/extrinsic motivations as social support; depression; stress; self-efficacy; body image; and attitudes toward nutrition and weight loss appeared to contribute to successful weight reduction in a population of low-income mothers. Furthermore, study data from Wamsteker and colleagues (2005) provided support to the idea that self-efficacy is a determinant of weight reduction behaviors. Likewise, study participants in the current study who participated in healthier eating behaviors and physical activity demonstrated greater eating behavior self-efficacy and physical activity self-efficacy. On the other hand, some study participants with lower levels of weight reduction self-efficacy perceived great difficulty in changing eating and physical activity habits learned through family traditions, customs, and habits.

Similar to findings from studies by Larson and colleagues (2006) and Aldana and colleagues (2005), environmental and lifestyle factors linked to the increase in obesity were found among this targeted population. The neighborhood and market environment in Claiborne and Jefferson Counties promote lifestyles with increasing portion sizes, eating out more often, increasing television viewing, and fear of crime, which prevents outdoor exercise. Many of the study participants voiced television viewing as a unique leisure time activity. The impact of this activity is further aligned with data from Polly and colleagues’ (2005) study which assessed that overweight is promoted by television viewing in that television viewing replaces physical activity and increases consumption of high-energy foods.

Similar to Hart and colleagues (2006), many of the African American adults in this study did not consume diets in accordance with the USDA Dietary Guidelines for Americans. High dietary fat intake was found to be a serious hindrance in the prevention and
management of the overweight and obesity and related co-morbidities among study participants from Claiborne and Jefferson Counties. The level and impact of excessive fat, low fruit and vegetable dietary intake, and inadequate physical activity among adults in the United States were revealed in data by Hart and colleagues (2006), Vanwormer and colleagues (2006), and Aldana and colleagues (2005).

Similar to Sherry and colleagues (2004), perception of weight/adiposity status was found to be a socioeconomic risk factor for becoming overweight or obese in this African American adult population. As with Sherry and colleagues, some of the African American adult participants in this study indicated a distorted view of weight status, viewing overweight as being at normal weight levels. As indicated in Sherry and colleagues’ study, many of this focus group study participants selected a schematic drawing depicting obese status as their boundary for defining overweight. Thus, the level of weight perceived as normal in this population of low-income and middle-income African American adults was the level of weight that is classified as overweight or obese by the healthcare sector.

Furthermore, similar to data from Stice and colleagues (2006), the researcher for this study found overweight and obesity to be less stigmatized with less body dissatisfaction among many of the African American women targeted for this study.

Although Lopez (2007) found increased age to be associated with increased BMI and increased likelihood of obesity, many of the younger participants for this study were also overweight or obese. Many of the younger study participants had lower incomes than some of the older participants. This factor correlates with results of studies by Adams and colleagues (2003) and Townsend and Kaiser (2007) indicating higher rates of obesity in low-income populations, especially among women.
Like Hart and colleagues (2006) and Lopez (2007), the researcher of this study found that the interaction of neighborhood income and education status was a determinant of behavior affecting adiposity levels. The effect of neighborhood income and education on the targeted residents’ obesity level for this study is inherent in the resources provided or not provided. The study participants perceived the lack or limited facilities or other safe areas for physical activity and low variety of food in the county grocery stores decrease dietary intake of healthier foods and levels of physical activity. Participants voiced fast food restaurant density in the targeted counties with high amounts of fried and other high fat foods being sold in the restaurants. Similar to Lopez’s study, this study found the fast food establishment density in Claiborne and Jefferson Counties to greatly increase overweight and obesity risks among the residents.

Unlike study results from Hart and colleagues (2006), Kolbo and colleagues (2007), Lopez’s (2007), and McKay and colleagues (2006) which showed that less educated people are more likely to be obese, the weight status of the African American adults targeted for this study, were basically equal across the educational spectrum. Kolbo, et al. (2007) assessed that weight-related risks were higher for populations with lower levels of formal education. The impact of race/ethnicity as a socioeconomic barrier was found to mediate the benefits of educational attainment of many participants in this study. Although only African American adults were studied, similarities were found between data from this study and data from a 2005 APHA report. The APHA reported study data showing that with increasing levels of formal education, African American women were found to be equally heavier at baseline and over the study period. Similarly, many African American women in this study did not show an increased in thinness as baseline educational attainment increased.
However, most participants perceived that nutrition education would increase motivation for weight reduction among African American adults who reside in Claiborne and Jefferson Counties. McKay and colleagues (2006) acknowledged that one reason given for higher education promoting more healthful diets is because better educated people may get better nutrition information. In studying the effect of greater nutrition knowledge vs. gains in knowledge on more successful weight loss in low-income, overweight and obese mothers with young children, Klohe-Lehman and colleagues (2006) concluded that having knowledge about diet-disease associations, how to use food labels, or benefits of low-fat eating habits may possibly promote greater weight reduction behaviors in limited resource populations.

Relative to age, similar to Whitney and Rolfes (2008), older participants in the current study indicated familiarity, taste, and health beliefs to be most influential on their food choices. In addition, some older participants found comfort in eating foods that recall family meals and pleasant times. Also, older participants in this study were less likely to diet to lose weight than younger people, but are more likely to participate in weight reduction behaviors in pursuit of medical goals such as controlling blood glucose and discontinuing medication.

The household income level was identified by study participants in association with eating and physical activity behaviors in African American adults residing in Claiborne and Jefferson Counties. This was aligned with study results from Hart and colleagues (2006) revealing that the resources available in regards to money available for food can affect food and eating choices. Expenses incurred with healthy eating and being physically active were among major struggles for study participants. However, unlike results from Hart and
colleagues’ study, whereby cost was placed second in importance to taste as food choice consideration, many younger participants in this study placed cost first as a food choice consideration. Older study participants indicated that their food choices were based on a liking for the food. Yet, many of the study participants perceived that it costs more to buy healthy foods. Therefore, less nourishing foods are sometimes substituted for healthier food by study participants.

In alignment with other research data, this study reveals a high increase in physical inactivity among most of the African American female and a few male participants (American Obesity Association, 2005; Keim, et al., 2004). Similar to study results indicating that the majority of adults in the United States perform less than 30 minutes of moderate physical activity each day, with the levels of physical activity performed varying according to gender, age, ethnicity, and socioeconomic status. Relative to gender, Hankinson (2008) found that fewer women than men met the recommendations of the Office of the US Surgeon General, the Centers for Disease Control and Prevention, the American College of Sports Medicine, and the American Heart Association to perform at a minimum of 30 minutes of moderate–intensity physical activity 5 days per week. That result was also found in this study. The researcher of the current study found that many of the African American adult female participants, in general, to be sedentary. In relation, data from the 2001 BRFSS indicated that physical inactivity was more prevalent among the less affluent than the more affluent (Keim, et al., 2004). Lopez (2007) also found that individuals with higher household income reported increased physical activity levels. However, contrary to the apparent interplay of socioeconomic status and physical activity relative to income among the African
American adults from Claiborne and Jefferson Counties, the actual practice of physical activity appeared to be similar across the socioeconomic status/household income levels.

**Differences between Older and Younger Focus Group Participants**

Differences were found between the younger and older study participants relative to weight reduction behaviors. For dietary behaviors, older participants’ food choices were based on food likes and dislikes while younger participants’ first consideration in food choices was the food cost. Relative to physical activity, older participants were less likely than younger participants to engage in weight reduction behaviors for the sake of weight loss. Most of the older participants voiced motivation for weight reduction to reduce disease risks and to get off medication. In addition, older and younger participants had distinctly different perceptions regarding the requirements of an effective weight reduction program leader/presenter. While younger participants perceived that a leader/presenter of a race/ethnicity other than African American would be effective, especially with younger African American, older participants perceived that race/ethnicity would not matter as long as the leader/presenter is qualified to perform the role.

**Implications for Practice**

These findings may be used to shape the development of an overweight and obesity reduction program tailored to the needs of African American adults who reside in Claiborne and Jefferson Counties in Southwest, Mississippi. Specifically, study results can be employed in strategies for weight reduction intervention programs. Such program strategy possibilities include:

- working through the Alcorn State University Extension Program to provide weight reduction education to African American adult residents of Claiborne and Jefferson
Counties in Southwest Mississippi. The extension program nutrition educators can be taught to provide strategies found to be vital for successful weight reduction in this targeted population. This can be an integral part of the extension program in fulfilling the goal of caring for the needs of limited resource individuals and families in Southwest Mississippi Counties.

- Providing a home gardening project to encourage African American adult residents in Claiborne and Jefferson Counties to produce fresh vegetables for themselves. This will create a readily available supply of fresh vegetables, creating an avenue for a higher intake of vegetables and a reduction in the cost of food. Furthermore, this project can be tailored to the whole family including children. Research indicates that participating in growing food gardens also has a positive effect on increasing vegetable intake in children. In turn, this will have a positive effect on the overweight and obesity reduction efforts among adults in the targeted counties. There are many children who are overweight and obese in Claiborne and Jefferson Counties. Overweight and obesity in adults often stem from childhood. Agents who work with small farmers may assist with this project. They can also teach families how to grow fruits as appropriate.

- Reporting study findings to policy makers, restaurant owners, store owners, and the farmer’s market agencies in the targeted counties to develop weight reduction programs incorporating as many strategies outlined by study participants as possible.

- Forming a collaboration between Alcorn State University and the targeted counties to provide an accessible physical activity facility in each county and qualified program leaders and physical activity trainers according to program participants’ needs,
considering age and interests. This will be in line with the community service mission of Alcorn State University.

- Incorporating weight reduction programs through churches in the targeted counties is a great possibility. In Southwest Mississippi, history reveals that church programs usually are successful in promoting a high level of participation among African American adults in the counties. Strategies employed in church programs and other community programs include nutrition education sessions combined with a physical activity sessions. Healthy food cooking demonstrations and food sampling will be included. Because some participants are motivated when in competition, the participating groups can pay a small fee that will be combined to be given to the individual who lose the most weight at a specified weigh in.

- holding block parties in building on the residents’ habit of partying, eating, and drinking. Healthy foods and beverages can be introduced and served. A physical activity component can be included, such opportunities for dancing, appropriate sports, and other forms of exercising.

The development of weight reduction programs employing all strategies outlined by study participants is a possibility.

Implications for using information found from this study to examine the socioeconomic factors impacting the adiposity status, dietary behaviors, and physical activity patterns of African American adults are open. Data provided by the study can enable educators, researchers, policy-makers, and program planners to better understand the relationship between socioeconomic barriers and obesity risk behaviors among African American adult residents of Claiborne and Jefferson Counties. With this understanding, these
stakeholders can better develop more effective intervention strategies to motivate improvements in dietary behaviors and increase physical activity levels in African American adults. This in turn, will serve as a stimulus to curb the tide of excess adiposity (overweight and obesity) in the African American adult population in Southwest Mississippi.

**Limitations**

Results from focus group studies are not geared toward generalization to the entire targeted population. The results of this study may only be relevant for African American adults to the extent that ideas and perceptions of participants allows. Although “focus groups do not require large sample sizes,” the number of males participating in this study was very small in comparison to the number of female participants. Thus more feedback is needed from African American adult males in the targeted counties.

**Recommendations for Future Research**

Although, the current literature suggest that African American women hold the highest prevalence of overweight overall, the overweight and obesity rates in Claiborne and Jefferson Counties in Southwest, Mississippi are excessive among African American adults, in general. Through familiarity with residents of the targeted counties and personal observation, the overweight and obesity status of males in the African American population warrants greater consideration. Because such a small number of African American males participated in this focus group study, further research is needed to conduct an in-depth assessment of male perspectives regarding the impact of socioeconomic barriers to overweight and obesity reduction operating among African American adult males who reside in Claiborne and Jefferson Counties. In addition, research to determine barriers to weight
reduction among African American adults in other Southwest Mississippi Counties need to be conducted.

**Conclusions**

In summary, themes presented through this study focus group discussion provided evidence to conclude that there are numerous socioeconomic barriers to overweight and obesity reduction behaviors among African American adults who reside in Claiborne and Jefferson Counties, Southwest Mississippi. Socioeconomic barriers impacting adiposity levels, dietary behaviors, and physical activity patterns among participants were found. Barriers included (a) low household income and educational attainment, especially nutrition education, (b) high rates of unemployment and poverty, (c) time constraints inherent in low socioeconomic status, (d) cost associated with healthy eating and participating in physical activity, (e) ethnic family traditions and cultural practices of eating high-calorie foods or large quantities of food in the same meal, and insufficient eating and physical activity self-efficacy inherent in low income and education populations. In addition, the neighborhood income and education base posed several barriers to weight reduction behaviors. These barriers included (a) lack of exercise facilities, (b) lack of sidewalks, bike-riding trails, and walking tracts, (c) lack of free weight-reduction activity services, (d) high fast food restaurant density, (e) unhealthy food sold at restaurants in the counties, (f) high cost of food in the grocery stores, and (low variety of foods sold in county grocery stores. This data suggests that African American adult residents of the targeted counties face a complex nature of overweight and obesity reduction-related barriers. The number and variety of socioeconomic barriers were common to both Claiborne and Jefferson Counties.
Regarding gender, although male participants differed from female participants in performing higher physical activity patterns and slightly more controlled eating behaviors, they faced the same socioeconomic barriers common to the female participants. Economic barriers on both personal and neighborhood levels and racial/ethnic customs and traditions highly impacted overweight and obesity reduction practices among study participants. Assessed barriers were aligned with current research. Identifying specific weight reduction-related socioeconomic barriers and the extent to which the socioeconomic barrier impact weight reduction behaviors in the targeted population are vital to developing effective weight reduction intervention strategies for the study population. To change behavior, one must have the means to change. African American adult study participants who reside in Claiborne and Jefferson Counties, Southwest Mississippi asked for the means to change. Using strategies based on this study data in developing weight reduction programs for this population will provide empowerment for vital changes.
APPENDIX A. STUDY ADVERTISEMENT FLYER

Assistance Needed!

I am seeking volunteers to participate in focus groups as part of my doctoral research study. The research study will focus on socioeconomic barriers to overweight and obesity reduction among African American Adults in Claiborne and Jefferson Counties, Southwest Mississippi. Results from the study will provide greater understanding of factors affecting healthy eating and physical activities for county residents and requirements for effective weight reduction programs.

Your participation in the research study is strictly voluntary. Confidentiality of your research data will be maintained. A small monetary compensation will be provided to offset the expense of travel and inconvenience.

If you would like to volunteer for this study, contact me for specific dates and times.

For more information contact:
Mattie R. Rasco
Eunice Powell Hall Room 18B
Phone: 601-877-6252 or 601-877-6253
E-mail: mrasco@alcorn.edu
APPENDIX B. INFORMED CONSENT FORM

Title: “Socioeconomic Barriers to Overweight and Obesity Reduction among Adults in Claiborne and Jefferson Counties, Southwest Mississippi

The following information is provided to help you decide whether you wish to participate in the present study conducted by Mattie R. Rasco, a PH.D student at Iowa State University, Ames, Iowa. Your participation is fully voluntary. You are free to decide not to participate or to withdraw at any time without penalties of any kind.

The purposes of this study are to explore socioeconomic barriers to overweight and obesity reduction that prevent the use of healthy dietary behaviors and physical activity among African American adults and to determine effective weight reduction interventions to use with African American adults residing in Claiborne and Jefferson Counties in Southwest, Mississippi.

Data will be collected using brief surveys to collect demographic information and physical activity level. Anthropometric measurements (weight, height, hip, and waist circumference) and a 24-hour diet recall will be taken to help assess your demographic background. You will also be asked questions to get your perceptions, attitudes and values regarding barriers to using healthy dietary and physical activity behaviors in your county of residence in a focus group setting. Although you are encouraged to respond to each question, you may refuse to answer any specific question that may be asked.

The focus groups will be composed of African American Adults, age 20 years and older, who reside in Claiborne and Jefferson Counties, Mississippi. You will participate in one of four to six focus groups consisting of four to eight participants per group. The focus groups will last approximately 45 minutes to an hour. All data will be collected at one visit. The total time that your participation is expected to last for anthropometric measurements, diet recall, and focus group session would be 11/2 – 2 hours.

Do not hesitate to ask questions about the study before or during your participation in the study. I will be happy to share the findings with you after the research is completed. Your name will not be associated with the research findings in any way, and only the researchers will know your identity.

Records identifying participants will be kept confidential to the extent allowed by applicable laws and regulations. Records will not be made publicly available. However, federal government regulatory agencies, auditing departments of Iowa State University, and the ISU Institutional Review Board (a committee that reviews and approves research studies with human subjects) may inspect and/or copy your records for quality assurance and analysis. These records may contain private information.
There are no known physical risks and/or discomforts associated with this study. However, due to the nature of the topic, emotional discomforts may arise about body image or weight issues for some participants. The focus of this study is not on body image or general cosmetic weight issues, but on weight as it relates to health.

Information gained in this study will provide a better understanding and treatment of adult overweight and obesity in Claiborne and Jefferson Counties, Southwest Mississippi. Understanding socioeconomic barriers that you face as African American adults residents of these counties will enable more effective weight reduction intervention to be developed. This will promote a higher level of weight reduction among African American adults, especially in your counties of residence, in Mississippi, and the United States, generally.

The expected benefits associated with your participation are in the information about socioeconomic barriers to overweight and obesity reduction among African American adults in your county of residence. A direct benefit for your participation will include a clinical assessment of your weight status and health risks, and related nutritional recommendations as needed. In addition, to offset the expense of your travel and inconvenience, you will be given a small monetary compensation at the end of the focus group session that you participate in. Light nutritious refreshments/snacks will also be provided. If this study is later submitted for publication, a by-line will indicate adult participation.

Please sign this consent form. You are signing it with full knowledge of the nature and purpose of the procedures. A copy of this form will be given for you to keep.

Signature _____________________ Date ____________

Mattie R. Rasco, Iowa State University/ Alcorn State University (601-877-6281)
Major Professor’s Contact Information:
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If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, Office for Responsible Research, (515) 294-3115, 1138 Pears
APPENDIX C. DEMOGRAPHIC INFORMATION QUESTIONNAIRE

Please mark the answer that applies to you. Please do not list your name.

1. What state do you live in?
   _____ Mississippi
   _____ Other; Specify
   ________________________________________________________________

2. How long have you lived in your state of residence? ______________

3. What county do you live in?
   _____ Claiborne County
   _____ Jefferson County
   _____ Other; Please Specify ______________________________________

4. How long have you lived in your county of residence? ______________

5. What race/ethnicity do you consider yourself to be?
   _____ White
   _____ Black
   _____ Hispanic
   _____ Other
   _____ MultiRacial

6. What is your age?
   _____ 20-24 years
   _____ 25-34 years
   _____ 35-44 years
   _____ 45-54 years
   _____ 55-64 years
   _____ 65+ years

7. What is your gender? ________ Male                        ___________
   Female

8. If female, are you currently pregnant?        ___ __ Yes                _______ No

9. Are you now married, widowed, divorced, separated, never married or living with a partner?
   _____ Married
   _____ Divorced
   _____ Widowed
   _____ Separated
_____ Never Married
_____ Living with Partner

10. How many children live in your household?

_____ None
_____ One child
_____ Two children
_____ Three children
_____ Four children
_____ Five or more children

11. What feeding method did you use with your children?

_____ Breast-fed
_____ Bottle-fed
_____ Both Breast and Bottle-fed

12. If breast fed, how long?

_____ 1-3 months
_____ 4-6 months
_____ 7-9 months
_____ 10-12 months
_____ 13-15 months
_____ 16-18 months
_____ 19-21 months
_____ 22-24 months

13. What is (are) your occupation(s)? ________________________________

14. What is the highest grade or level of school you have completed or the highest degree you have received?

_____ Less than high school
_____ High school or G. E. D.
_____ Some post high school
_____ College +

15. What is your employment status?

_____ Employed
_____ Self-Employed
_____ No work greater than a year
_____ Homemaker
_____ Student
_____ Retired
_____ Unable to work

16. What is the number of your paid work hours per week?
   _____ None
   _____ Less than 10 hours
   _____ 10-20 hours
   _____ 21-30 hours
   _____ 31-40 hours
   _____ Other (Please specify.)

17. What is the number of unpaid/volunteer work hours for you per week
   _____ None
   _____ Less than 10 hours
   _____ 10-20 hours
   _____ 21-30 hours
   _____ 31-40 hours
   _____ Other (Please specify.)

18. What is your annual household income?
   _____ $0-$15,000.
   _____ $15,000-$24,999.
   _____ $25,000-$34,999.
   _____ $35,000-$49,999.
   _____ $50,000-$69,999.
   _____ $70,000-$90,000.
   _____ above $90,000.

FIGURE OF SILHOUETTES

Women

1W  2W  3W  4W  5W...  6W  7W

Men

1M  2M  3M  4M  5M  6M  7M


Please look at the images displayed in this handout and choose the first image in each row that you think shows overweight. Circle the first image in each row that shows overweight.
APPENDIX D. FOCUS GROUP QUESTIONS FOR FORMATIVE EVALUATION

DISCUSSION GUIDE

Good afternoon/evening and thanks for coming to our discussion. My name is __________, and this is my assistant __________. We are working on a doctoral degree research study for ___ who is a student at Iowa State University (ISU). We are trying to find out more about what people in Jefferson and Claiborne Counties think about barriers that prevent healthy eating and physical activity behaviors for overweight and obesity reduction among adult residents in these counties. This information can be used to develop programs that will help improve the health and quality of life for residents of these counties through a reduced level of overweight and obesity among the adult residents.

While I ask you just a few questions, _____ will be taking notes. You’ll notice that we’re also tape recording our session, with your approval. That is simply because we want to be sure to get all of your comments. Everything you say here is confidential and your names will not be used in the written record of our session. I do ask that everyone speak one at a time so that we can get every single thing that you say. Please feel free to answer each question as honestly as you can, and remember that there is no wrong answer to any of the questions you will be asked. We simply want to hear of your thoughts, both positive and negative, so that we can get a better idea about what weight reduction interventions will best promote weight reduction among adults in your county.

Opener: Why don’t we go around the table and introduce ourselves. Tell us your first name, only, and one word that best describes the taste of your favorite food (or your favorite food).

Dietary Behavior and Physical Activity

Okay, let’s begin with a few questions about things that may affect your ability to eat healthier and do physical activity.

1. What are special beliefs and practices that you have regarding health?

   (Probe only if necessary: What do you believe you should do or do for your health?)

2. What are special beliefs or practices you have regarding food choices and other eating habits?

3. How do you or your family member choose what foods to buy or get at the store?

4. What are your unique leisure habits?

5. What are your special beliefs or practices regarding physical activity?
6. Are your preferences for certain foods and physical activity behaviors based on being an African American?

7. What are your special beliefs or practices regarding money?

Now, I want to ask you a series of questions about more specific things that affect your weight and health. (* Remind them that you are going to walk them through the questions.)

8. What are conditions in your county that prevent African Americans from practicing healthy food choices/eating habits and engaging in physical activity?

9. What are conditions in your county that promote healthy food choices/eating habits and physical activity?

10. What specific barriers in your county affect weight status, dietary behaviors, and physical activity of the residents?

11. What value do you hold about weight, eating behavior, and physical activity?

12. What will motivate you and other adult African American residents of your county to eat healthier?

13. What will motivate you and other African American adult residents of your county to do regular physical activity?

14. What would be the greatest motivation for African American Adults to participate in weight reduction programs in your county?

15. If you were going to offer a program on healthy eating and physical activity in reducing weight in your county, what would it consist of?

   a. Who would lead it or present it?

   b. When would it be offered? Where would it be offered? How often?

   c. How long would sessions last?
d. What would the theme be?

e. What ideas do you have about any activities or education methods that would be used?

f. How would it be publicized so that the target group would know that it is designed for them?

(Probing questions will be asked as needed)
APPENDIX E. PHYSICAL ACTIVITY QUESTIONNAIRE

Physical activity and inactivity questions to assess the prevalence of physical activity consistent with physical activity recommendations of Healthy People 2010, printed from BRFSS Survey, 2001 (Center for Disease Control and Prevention, 2003) will include:

- During the past 30 days, other than your regular job, did you participate in any physical activities or exercise such as running, calisthenics, golf, gardening, or walking for exercise? This question will assess inactivity.

- Lead in for physical activity questions: We are interested in two types of physical activity, vigorous and moderate. Vigorous activities cause large increases in breathing or heart rate while moderate activities cause small increases in breathing or heart rate.

- Now thinking about the moderate physical activities you do (when you are not working) in a usual week, do you do moderate activities for at least 10 minutes at a time, such as brisk walking, bicycling, vacuuming, gardening, or anything else that causes small increases in breathing or heart rate?

- How many days per week do you do these moderate activities for at least 10 minutes at a time?

- On days when you do moderate activities for at least 10 minutes at a time, how much total time per day do you spend doing these activities?

- Now thinking about the vigorous physical activities you do (when you are not working) in a usual week, do you do vigorous activities for at least 10 minutes at a time, such as running, aerobics, heavy yard work, or anything else that causes large increases in breathing or heart rate?
• How many days per week do you do these vigorous activities for at least 10 minutes at a time?

• On days when you do vigorous activities for at least 10 minutes at a time, how much total time per day do you spend doing these activities?
APPENDIX F. HUMAN SUBJECTS RESEARCH APPROVAL

Alcorn State University
Institutional Review Board Approval Form

Socioeconomic Barriers to Overweight and Obesity Reduction among Adults in Claiborne and Jefferson Counties, Southwest Mississippi

Title of Project: Adults in Claiborne and Jefferson Counties, Southwest Mississippi

Researcher/Principal Investigator: Mattie R. Rasco, NS, RD, LD

FOR OFFICE USE ONLY

Date Received: 5/20/09

Type of Review: ☑ Approved

☐ Disapproved

☐ Modification Required

Stewart
IRB Chair

Date: 5/20/09

White
IRB Member

Date: 5/29/09

ASU-OIA-IRB-06-03
DATE: 21 August 2009

TO: Mattie R. Rasco
4311 Camelot Dr.
Vicksburg, MS 39180

CC: Dr. Robert Bosselman
31 MacKay Hall

FROM: Jan Canny, IRB Administrator
Office for Responsible Research

TITLE: Socioeconomic Barriers to Overweight and Obesity Reduction among Adults in Claiborne and Jefferson Counties, Southwest Mississippi

IRB ID: 09-304

Approval Date: 21 August 2009
Date for Continuing Review: 13 August 2010

The Chair of the Institutional Review Board of Iowa State University has reviewed and approved this project. Please refer to the IRB ID number shown above in all correspondence regarding this study.

Your study has been approved according to the dates shown above. To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 56), please be sure to:

- Use the documents with the IRB approval stamp in your research.

- Obtain IRB approval prior to implementing any changes to the study by completing the “Continuing Review and/or Modification” form.

- Immediately inform the IRB of (1) all serious and/or unexpected adverse experiences involving risks to subjects or others; and (2) any other unanticipated problems involving risks to subjects or others.

- Stop all research activity if IRB approval lapses, unless continuation is necessary to prevent harm to research participants. Research activity can resume once IRB approval is reestablished.

- Complete a new continuing review form at least three to four weeks prior to the date for continuing review as noted above to provide sufficient time for the IRB to review and approve continuation of the study. We will send a courtesy reminder as this date approaches.

Research investigators are expected to comply with the principles of the Belmont Report, and state and federal regulations regarding the involvement of humans in research. These documents are located on the Office for Responsible Research website [www.compliance.iastate.edu] or available by calling (515) 294-4566.

Upon completion of the project, please submit a Project Closure Form to the Office for Responsible Research, 1138 Pearson Hall, to officially close the project.
REFERENCES


Center for Disease Control and Prevention. (August 2003). *Prevalence of physical activity,*
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5232a2.htm


Older adults in the rural south are not meeting healthful eating guidelines.


ACKNOWLEDGEMENTS

First, I would like to acknowledge God, my Lord and Savior, for infinite blessings. I would like to send special acknowledgements to my entire Program of Study Committee, Dr. Robert Bosselman, Major Professor; Dr. Cheryl Hausafus, initial Major Professor; Dr. Leah C. Keino; Dr. Ruth Litchfield; Dr. James McShay; and Dr. Penny Ralston, for their time, guidance, patience, and commitment provided on my behalf. I further acknowledge the African American adult study participants from Claiborne and Jefferson Counties for sharing their time, candid responses, and perceptions. I am appreciative of ISU FCEdS Faculty and Visiting Faculty for providing the instruction and leadership necessary for a positive outcome in completion of my studies; ISU Staff involved in coordinating my educational and graduation activities, especially Louann and Lori; and ISU FCEdS Leadership Academy colleagues for support and information sharing. I would also like to thank Dr. Wanda Newell, ASU Department of Human Sciences Chairperson, for active support and encouragement; Gwen Lucas for moderating the focus groups and providing technical support; Dr. M. Rowser for her assistance in coordinating focus group preparation when called on; Charlene, friend and coworker for standing by my side as a true friend, providing all kinds of support, including editing and technical support; Corvet, coworker, for assistance with computer skills and tasks; Ouida for assistance in her capacity as ‘jack of all trades” and for making time for me when called on; Shirley, coworker, for assisting me with my work load which allowed more time for me to spend on my educational pursuits; Martha and Dr. Ford, coworkers, for forcing me to have some down time; Monica, my student and research assistant, for skillfully completing related work as assigned; and all other ASU Department of Human Sciences Faculty and Staff who prayed for me and provided other forms of support and
encouragement; ASU Nutrition and Dietetic students for assistance in preparation for focus groups.