

ABSTRACT

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A STUDY OF THE RELATIONSHIP BETWEEN PLANNED PHYSICAL ACTIVITY,
SOCIAL SUPPORT, AND SEDENTARY BEHAVIOR CHOICES AMONG
WOMEN AS ARTICULATED BY THE U.S. SURGEON GENERAL
UNDER THE AFFORDABLE CARE ACT, 2010

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There are several implications for policy and social work practice concerning planned physical activity levels for women 18-64 years old. This study examines the relationship between planned physical activity, social support, and sedentary behavior choices among women as articulated by the U.S. Surgeon General under the Patient Protection and Affordable Care Act, 2010. This study is based on the premise that a large percentage of women are not involved in physical activity. A quantitative method was used to focus on planned physical health beliefs and behaviors from the view of women. One hundred fifty eight (N=158) survey participants were selected for the study utilizing non-probability convenience sampling. The survey participants were composed of women and men. The survey questionnaire utilized the Planned Physical Activity Index

(PPAI) and a four point continuum Likert scale. The study benefits social work practitioners, law makers, educators, and administrators by emphasizing the importance of policy and how planned physical activity, social support, and sedentary behavior choices for women. Results suggest the majority of the women were not involved in planned physical activity as articulated by the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010.

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SOCIAL SUPPORT, AND SEDENTARY BEHAVIOR CHOICES AMONG WOMEN
AS ARTICULATED BY THE U.S. SURGEON GENERAL
UNDER THE AFFORDABLE CARE ACT, 2010

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CHAPTER I

INTRODUCTION

The problem of planned physical activity is linked to social support and sedentary behavior choices. According to Centers for Disease Control and Prevention (CDC) (2012), all women should engage in physical activity daily. CDC recommends that women engage in a moderate amount of physical activity that can be obtained by being involved in longer sessions of moderately intense activities, such as 30 minutes of brisk walking. For shorter sessions of strenuous activities, a woman should jog for 15–20 minutes. Over 60 percent of United States (U.S.) women do not engage in the recommended amount of physical activity.

The CDC (2012) suggests that an active lifestyle be adopted by all women to reduce the risk of diseases. Regular physical activity is important for the primary and secondary prevention of many chronic diseases (e.g., diabetes, heart disease, and obesity), disabling conditions (e.g., osteoporosis and arthritis), and chronic disease risk factors (e.g., high blood pressure and high cholesterol).

Physical activity is a broad term. A large percentage of women are not involved in physical activity. The U.S. Department of Health and Human Services (2010) contends that the initiative of the U. S. Surgeon General is to develop goals to increase physical activity in Americans. The Surgeon General recommends that an otherwise healthy

individual, whose principal mode of activity is walking, expend approximately 150 kcal of energy per day (U.S. Department of Health and Human Services, 2010). Two studies conducted in Japan and the popular press have promoted a pedometer-based target of 10,000 steps per day as a way for adults to meet the national physical activity guidelines. The populations that are least likely to be more active are women, older adults, racial and ethnic minority populations, and people with physical disabilities. Healthy People has set a national health objective for 2010 to reduce the prevalence of no leisure time activity from more than 25% to 20% of U.S. adults (Berlin, Storti, & Branch, 2006).

According to Branch and Bourque (2000), physical activity, health promotion, and disease prevention have been endorsed for three decades. Physical activity is important to an individual's overall well being. The medical community, public health agencies, and educators have endorsed regular physical activity as an effective method for promoting health and preventing disease. There is a high prevalence of sedentary lifestyle and less participation in physical activity in women in spite of the recommendation by the Surgeon General (U.S. Department of Health and Human Services, 2010). As a target group in public health initiatives, women are the key focus group to increase physical activity in their lifestyle. Epidemiological literature has well documented the benefits of being physically active.

The U.S. Department of Health and Human Services (2010) research shows that adults 30 to 64 years old who are moderately overweight (10 to 20 pounds) have an increased risk of death. Overweight and obesity can be contributed to environmental and behavioral factors, which can be addressed by interventions that will increase physical

activity. Dietary guidelines for Americans are important to follow to maintain a healthy weight and obtain a healthy profile.

Physical inactivity has the greatest impact on women. The CDC (2012) reports “24.9% of the women at risk spent at least 150 minutes a week being physically active, compared to 33.7% of women not at risk” (p. 1). Poor and high income women are at risk of Type 2 diabetes. “Physical activity levels were 26.0% for those at high risk; 43.6% for other women. Among high-income women, physical activity levels were 21.9% for those at high risk; 29.9% for other women” (CDC, 2012, p. 1).

A behavior change is needed to decrease the obesity rates among women. Obesity is a growing problem. Obesity can cause disability, decrease productivity, and shorten an individual’s life span. In 2008, it was estimated by The World Health Organization (WHO) that 1.5 billion adults aged 20 years and older were overweight. Over 200 million men and 300 million women, approximately 10% of the adult population, were obese (Ahima, 2011).

According to a report by Seiluri et al. (2011), health behaviors, such as leisure-time physical activity, tend to be socioeconomically patterned. Education, occupational class, and income are the main subdomains. Individuals with lower education are less involved in physical activity and those with higher education are more involved in physical activity. Leisure physical activity is associated with higher weight, smoking, poor health, mental health, and marital status. An increase in physical activity occurs during retirement.

According to Estabrooks, Lee, and Gyurcsik (2003), low and medium socioeconomic status (SES) neighborhoods offered less physical activity resource

availability than high SES neighborhoods. There were less free physical activity resources in lower SES neighborhoods than in higher SES neighborhoods. The issues should cause government officials to increase and enhance resources (e.g., public facilities, green spaces, and walking/biking paths) in the lower SES neighborhoods. Individuals in lower SES neighborhoods may have less control over their physically active lifestyle due to their low SES.

Healthy People 2010 initiative is to eliminate health disparities (Berlin, Storti, & Branch, 2006). The principal goal is to create interventions that encourage a healthy lifestyle for all individuals. According to Frierson, Williams, Dunsiger, et al. (2008), the purpose of the study was to examine rates at different levels and assess reasons for individuals' ineligibility among the non-Hispanic blacks and whites using a randomized controlled physical activity intervention. The study included 1,245 adult participants. Eligibility for the study used a four pre-randomization assessment sessions that used self-reported medical information, resting electrocardiogram (EKG), 7-Day Physical Activity Recall, fitness test and Stage of Change.

A t-test was used to examine the rates of eligibility among participants. Blacks were higher overall (86.9%) than whites (75.1%; $p < 0.01$). Also, blacks were more likely to be ineligible due to the lack of interest or no-show at a pre-randomization appointment (35.4% vs. 24.3%; $p < 0.01$). Due to medical reasons, blacks were more likely to be ineligible after a telephone screen (16.3% vs. 7.8%; $p < 0.01$). The limitations of the study did not use a random sampling of potential participants from each of the racial/ethnic groups. Also, there was a chance for potential selection bias. Blacks choose

not to enroll in the study due to a lack of interest and had similar rates of overall medical ineligibility to whites (Frierson et al., 2008).

According to Buchowski, Cohen, Matthews, et al. (2010), the prevalence of obesity are higher among women in the southeast than in other part of the region in the U.S. In 2005, 48% of women in the U.S. and 33% of women in the southeastern U.S. reported regular participation in moderate and vigorous physical activity. White women are more physically active than African-American women. The researchers reported that African Americans have the lowest physical activity levels. There is a difference association of physical activity patterns and obesity between black and white women who reside in the southeastern U.S. The findings indicated sedentary behavior is strongly associated with obesity in white than in black women (Buchowski et al., 2010).

The U.S. Surgeon General, Dr. Regina M. Benjamin, issued a report, Vision for a Healthy and Fit Nation, challenging all citizens to work together to share resources, educate our citizens, and partner with business and government leaders to find creative solutions in neighborhoods, towns, and cities to become a nation of healthy and fit citizens. Dr. Benjamin's report encourages citizens to undergo changes in order to live a healthy, happy and productive life. Some of the hard facts from the report informed readers that two-thirds of adults and nearly one in three children are overweight or obese (U.S. Department of Health and Human Services, 2010).

According to United States Department of Health and Human Services (USDHHS) (2010), the obesity and overweight numbers triple for the adult population. Dr. Benjamin's report strives to reduce the obesity epidemic in this country and increase

physical activity in Americans. The report encourages individuals to seek behavior changes to reduce the obesity rate and increase physical activity in Americans.

The Affordable Care Act (ACA) was passed on March 23, 2010 to improve the well being of Americans. The law will help to transform America's health care system for vulnerable, chronically ill and the disabled populations. Implementation of ACA created much debate among law makers, the public, private and public sector (Jacobi, Watson, & Restuccia, 2011).

The National Prevention Council (2011) agenda is to improve the health outcomes of Americans. The goal of the organizations is to move from a system of sick care to one based on wellness and prevention. The organization encourages collaborative efforts among government officials, state officials and community partners to improve the health outcomes in state and local communities. The goal is to expand preventative services, create livable communities, empower individuals to make healthy choices and reduce health disparities.

Six key action items outlined in the report are as follows: Individual Healthy Choices and Healthy Home Environments; Creating Healthy Child Care Settings; Creating Healthy Schools; Creating Healthy Work Sites; Mobilizing the Medical Community; and Improving our Communities (National Prevention Council, 2011).

Individual Healthy Choices and Healthy Home Environments, specifically, is under the section of the action items that address physical activity. The Affordable Care Act provides a chance to develop better health and fit Americans (National Prevention Council, 2011).

Statement of the Problem

According to the U.S. Department of Health and Human Services (2010), the success and failure of planned physical activity is viewed as personal responsibility, as outlined under the Affordable Care Act, 2010, and is largely dependent upon the individual's behavior and attitude toward exercise. The evaluation of lack of physical activity of an individual's behavior has focused on the rapid growth of obesity rates in the U.S. To date, very little consideration has been given to how women feel about planned physical activity under the Affordable Care Act, 2010.

According to the U.S. Surgeon General, Dr. Regina Benjamin, women may not increase their knowledge of physical activity as a result of ACA (USDHHS, 2010). The prevalence of overweight and obesity rates may not decrease due to ACA. Individual behavior changes must occur by increasing physical activity to decrease the prevalence of diseases in Americans. A new way of life, "Vision for a Healthy and Fit Nation" encourages women to balance a healthy diet along with planned physical activity to achieve and maintain a healthy or healthier body weight. Women must incorporate physical activity into their life to increase physical activity among the population. The ACA makes it clear that the Secretary of Health and Human Service recognized that there is a critical public health problem with obesity and lack of physical activity in the U.S. (USDHHS, 2010).

Some women prefer to engage in physical activity through the support of their friends and family. A growing number of studies show that individuals are more likely to be successful if they are engaged as a group when involved in regular physical activity. The problem is that physical activity is an individual responsibility. Some individuals

may discontinue participating in regular physical activity if they are not in a group setting.

Research from the USDHHS (2010) informs that sedentary behavior presented another problem due to automation, remote televisions, and increased use of automobiles. This problem reduced physical activity behavior. Consequently, sedentary living resulted in low levels of physical activity. Behavior patterns must change in order to develop a healthy lifestyle. An individual must commit to change behavior patterns from inactivate to active, and regularly be involved in physical activity.

Obesity is excessive fat. Body Mass Index (BMI) is calculated by weight and height, “The National Heart, Lung, and Blood Institute and the World Health Organization (WHO) define overweight as a BMI equal to or greater than 25 kg/m² and obese as a BMI equal to or greater than 30 kg/m²” (Ahima, 2011, p. 2076). In addition, “obesity has a direct relationship with physical activity and poor dietary habits. Diet, exercise, and other lifestyle modifications are logical steps for preventing and treating obesity” (Ahima, 2011, p. 2076). Sedentary lifestyle is a major contributor to the increase of obesity. Also, in developing countries, vegetables, fruits, and fish have been replaced by cheaper energy dense foods in Western diets, which contributes to the increase of obesity.

In the United States, nearly two thirds of reproductive-aged women are overweight or obese (Hillemeier, Weisman, Chuang, et al., 2011). A study was conducted that identified factors associated with overweight or obesity over a 2-year period among women who were reproductive age. The data was collected in the Central Pennsylvania Women's Health Study (CePAWHS). A longitudinal cohort study of

reproductive-aged women was conducted. The 689 participants were women who were normal or overweight who was not pregnant at either baseline or 2-year at the follow-up. Separate multiple logistic regression analyses was used. Women who were normal weight at baseline, 18% became overweight or obese during follow-up; 25% of women were overweight at baseline became obese. The major predictor was demographics. Lower education and young age resulted in overweight to obesity. The study established meeting physical activity guidelines should be encouraged among normal weight women of reproductive age (Hillemeier et al., 2011).

In addition to causing serious health problems, these risk factors also contribute to a sedentary lifestyle. Despite the accessible information, our nation continues the current trend towards increased prevalence in overweight and obese women. Dietary intake and physical activity levels are identified as primary proximate determinants of weight status, and a range of characteristics has been shown to influence these behaviors and, in turn, to affect body weight trajectories among women in their reproductive years (Hillemeier et al., 2011).

Obesity rates for women have reached epidemic proportions. Some individuals may lack knowledge, no social support system, poor diet, sedentary lifestyle, and lack of regular physical activity. States can help reduce obesity with statewide policies that address nutrition (e.g., increased fruit and vegetable consumption; breast feeding initiation, duration, and exclusivity; and decreased consumption of high energy-dense foods and sugar-sweetened drinks), physical activity, or clinical services, or by supporting local groups in their efforts (MMWR, 2010, p. 955).

According to Ogden, Carroll, Kit, and Flegal (2012), more than 35% of U.S. men and women were obese in 2009-2010. There was no significant difference in obesity prevalence by age among men. The female population, 2.3% of 60 years and older were obese compared to 31.9% of women aged 20-39. From 2007 -2010 there was no significant change in the prevalence of obesity overall among men or women. During the last decade, there has not been a increase of obesity not among women and girls overall (Ogden et al., 2012).

According to Georgia Physical Activity Surveillance Report (GPASR) (2010), 46% of adults in Georgia were regularly active, 42% were insufficient, and 13% were inactive. Physical activity is vital to overall health. Georgia's aim is to increase physical activity among all Georgians according to the guidelines of CDC. The state created key strategies for individuals to access places for improving physical activity facilities, obtaining physical education and increase physical activity in schools and in child care settings, by supporting urban design, land use, and transportation policies. States and communities, play a vital role in supporting policy and environmental changes that ensure individuals and families can be more physically active (GPASR, 2010).

According to Georgia Department of Community Health (2009), 43% of white women are more likely to be regularly active than either black women (31%) or Hispanic women (30%). In 2007, physical inactivity cost Georgia \$599 million in hospital charges. Physical inactivity has a severe health and economic impact on the state. Overweight and obesity appears as a health problem in Georgia (Georgia Department of Community Health, 2009). For the purpose of this research, planned physical activity is at least 30 minutes a day of moderate intensity activity on 5 or more days a week, or at

least 20 minutes a day of vigorous-intensity activity on 3 or more days a week, or both (CDC, 2007a).

In sum, the initiative of the U.S. Surgeon General's report, *Vision for a Healthy and Fit Nation* (2010), seemingly desires for individuals to be informed about prevention and the benefits of physical activity. It seems that a large number of women rely on groups to feel comfortable while engaging in physical activity. Clearly it is important for women to increase their sedentary behavior choices by engaging in regular physical activity. In order to evaluate the success of the physical activity initiative, it is necessary to know how the women felt about planned physical activity, their social support system and increasing their sedentary behavior choices. Therefore, the health care professionals, policy makers and states are in need of research that might offer solutions to address the problem of planned physical activity, social support, and sedentary behavior choices of women (USDHHS, 2010).

Purpose of the Study

The purpose of this explanatory study is to explain the relationship between planned physical activity, social support, and sedentary behavior choices among women – a critical intervention strategy from The U.S. Surgeon General's report, *Vision for a Healthy and Fit Nation* (2010), under the Affordable Care Act, 2010. The primary focus of this study is to ascertain planned physical activity behaviors of women. This study will seek to explain how Theory of Planned Behavior (TPB) relates to women in three areas – planned physical activity, social support (friends and family), and sedentary behavior choices.

The study was designed to explain the factors that influence planned physical activity among women in two areas that included: social support (family and friends) and sedentary behavior choices. The focus of this study is on planned physical activity. The identified independent variables are social support (family and friends) and sedentary behavior choices. The dependent variable is planned physical activity. The respondents of the study were women and men from Georgia who are covered under the Affordable Care Act, 2010.

Significance of the Study

This research focuses on planned physical health beliefs and behaviors from the view of women. Also, the study collected data from men to utilize as a comparison group. However, women are the focus of this study. The researcher collected data on males to have a comparison group. This study benefits women by emphasizing lack of physical activity within in the gender and informs about chronic diseases. Knowing and changing health behaviors is important to increase the physical activity of women.

The study is important because federal regulations, such as the Affordable Care Act, 2010, attempt to address the problem of chronic diseases and lack of physical activity. This type of research is also important because it is critical to the prevention focus of the Affordable Care Act and builds on the law's efforts to lower health care costs, improve the quality of care, and provide coverage options for the uninsured. In addition, the benefits of prevention for all Americans are offered. Research that results in the awareness of more personal health prevention might help women become empowered to increase physical quality of life (Policy Options, 2008).

This study not only expands the body of literature related to planned physical activity, social support, and sedentary behavior choices, but the results could be of value to the health care community. The results of this research also serve to educate policy makers on matters related to women's health care, and to ensure that future policies are current, relevant, and clear enough for prevention programs to follow and implement strategies that are backed by policy and best practices (USDHHS, 2010).

According to Barnes (2011), cardiovascular disease is the leading cause of death in women. Obesity and diabetes are risk factors for cardiovascular disease. Nationally, 32% of white and 53% of black women are obese. Screening is the best treatment for obesity and diabetes to reduce the risk factors. Prevention of diabetes can be accomplished through lifestyle change and 30 minutes of daily moderate physical activity (Barnes, 2011).

Obesity is a public health problem. Obesity has caused a 36% increase in health care and treatment costs (Smith-Ward, 2010). A healthy diet and physical activity will reduce the obesity rates. By 2006, obese individuals were spending \$1,429 annually on medical care, or 42% more than average weight individuals. Obesity is associated with bias, prejudice, and discrimination (Smith-Ward, 2010).

Health care spending in 1998 accounted for 78 percent for individuals with chronic illnesses; that figure has increased to 84 percent. Inexpensive, organized, and quality health care is made available through ACA. ACA is rearranging the health care system from provider-friendly to patient-focused. ACA will attempt to prevent gender discrimination in health insurance premiums for women to receive preventive care. ACA improves health care for American families (Ness, 2001).

This study proposes to shed some light on the perceived problem related to whether women engage in planned physical activity. Knowing this information is important because the success or failure of increasing physical activity in women depends largely upon the individual adopting new behaviors, such as increased planned physical activities, in order to reduce the mortality rate. It is, therefore, of great significance to review the literature to understand the factors that influence women to engage in planned physical activity.

According to Warm's (2005), physical activity has many dimensions that can be measured and quantified according to the article review. This explanatory study utilizes a quantitative design, which is appropriate to answer the research questions. The author indicates that there are different ways data can be obtained. This is not the case with this study, which explores the perceptions of women's physical activity behaviors.

Quantitative results are provided. Previous research utilized quantitative designs (Smith, Chen, & McKyer, 2009) to evaluate physical activity in women using open-ended questions. For this research, closed-ended questions were used. The approach in this research is more appropriate than qualitative approach alone because it allowed for an expedient way to collect and analyze data. The selected design allows for the use of questionnaires to collect the quantitative data. The collection strategy affords the researcher the opportunity to capture a cross sectional case survey design to reach the research goals.

Research Questions

The research questions of the study were as follows:

- RQ1: Is there planned physical activity among women as articulated by the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010?
- RQ2: Is there a relationship between social support (friends and family) and planned physical activity among women as articulated by the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010?
- RQ3: Is there a relationship between sedentary behavior choices and planned physical activity among women as articulated by the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010?

Hypotheses

The null hypotheses for the study were as follows:

- HO1: There is no evidence of planned physical activity among women as articulated by the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010.
- HO2: There is no statistically significant relationship between social support (friends and family) and planned physical activity among women as articulated by the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010.

HO3. There is no statistically significant relationship between sedentary behavior choices and planned physical activity among women as articulated by the U.S. Surgeon General's report, *Vision for a Healthy and Fit Nation* (2010), under the Affordable Care Act, 2010.

Definitions

1. Physical activity was defined as aerobic physical activity in which the body's large muscles move in a rhythmic manner for a sustained period of time. Aerobic activity, also called endurance activity, improves cardiorespiratory fitness. Examples include walking, running, swimming, and bicycling (CDC, 2011d).
2. Planned physical activity was defined as engaging in light or moderate activity five times or more per week for 30 minutes or more each time and/or engaging in vigorous activity three times or more per week for 20 minutes or more each time (Barnes & Schoenborn, 2003).
3. Sedentary behavior "refers to activities that do not increase energy expenditure substantially above the resting level and includes activities such as sleeping, sitting, lying down, watching television, and other forms of screen-based entertainment" (Pate, O'Neill, & Lobelo, 2008, p. 174).
4. Social support involves the actions done by others to assist a particular person. Social support is seen today as a connection between giver and recipient, and, as part of the method, enhances the individual's well-being. The subjective dimension of social support is most influenced on health (Natterlund, 2010).

5. Moderate activity - During moderate-intensity activities one should notice an increase in heart rate, but should still be able to talk comfortably. An example of a moderate-intensity activity is walking on a level surface at a brisk pace (about 3 to 4 miles per hour). Other examples include ballroom dancing, leisurely bicycling, moderate housework, and waiting tables (CDC, 2011).
6. Vigorous activity - If one's heart rate increases a lot and he or she is breathing so hard that it is difficult to carry on a conversation, the individual is probably engaging in vigorous-intensity activity. Examples of vigorous-intensity activities include jogging, bicycling fast or uphill, singles tennis, and pushing a hand mower (CDC, 2011).

CHAPTER II

REVIEW OF LITERATURE

The purpose of presenting this review of the literature was to lay a scholarly foundation in order to establish a need for the study. This chapter is a review of the current literature on regular physical activity among women, in order to promote behavior changes in women 18-64 years old. The review covers a historical perspective on health care, the Affordable Care Act of 2010, and U.S. Surgeon General's Report (2010) by Dr. Benjamin. Physical activity measurement instruments and physical activity are reviewed in order to establish an understanding for the data analysis from the responses of women 18-64 years old who are served by the 2010 U.S. Surgeon General's report "Vision for a Healthy and Fit Nation" under the Affordable Care Act 2010.

The purpose of this explanatory study is to explore, from the view of women, the relationship between planned physical activity, social support, and sedentary behavior choices. According to Caspersen, Powell, and Christenson (1985), planned physical activities are virtually done with all conditioning as the goal. Many sports activities are performed to improve or maintain components of physical fitness. For example, planned physical activity is structured and repetitive. For the purpose of this study, physical activity is defined as anything that gets an individual's body moving to improve their health – aerobic and muscle-strengthening. Physical Activity should not be confused with

activities such as occupational, household chores, and many daily tasks. These typically are performed in the most efficient manner possible, but does little regard to physical fitness.

Physical activity is a personal choice. Everyone performs physical activity to sustain life; physical activity is planned and has a goal to improve or maintain components of physical fitness (Caspersen, Powell, & Christenson, 1985). Chapter 2 provides a historical perspective of physical activity including relative policies, examines literature related to factors that lead to being inactive, explores reasons why women do not engage in physical activity, and reviews research-based interventions. In addition, the chapter discusses the physical activity trend in Georgia and examines the current prevention measure to address the problem of physical activity.

Women are more likely than men to be inactive. Although the data is improving, women continue to lag in being physically active. Social support and sedentary behavior choices are discussed because the literature identified the two independent variables as a way to increase physical activity in women (CDC, 1999). Theory of Reasoned Action/Planned Behavior, The Transtheoretical Model (TTM), and Health Belief Model are discussed as the frameworks that guide this study because of the potential of the three frameworks to help the researcher understand the issue of individual health behavior as a systemic issue that may be addressed by prevention measures to improve health in women.

Historical Perspective of Health Care Reform

American Association for Labor Legislation (AALL) established health insurance programs in this country (Fong, 2005). The organization was created at the University of Wisconsin in 1906 as a private reform organization, by a group of lawyers, businessmen, politicians and labor leaders. Health care reform has been an ongoing debate before 1915. AALL released a health insurance bill as a model for state-run health insurance programs to state legislatures. The bill included protection for all low-income workers, and broad hospital and medical benefits for workers and their families. The bill was met with defeat. Health care agenda was not sought again until President Roosevelt (Fong, 2005).

Jane Addams, the founder of the Hull House in Chicago, was instrumental in assisting with health care reform for Americans (Birn, Brown, Fee, & Lear, 2003). Addams was the second to nominate Roosevelt for the presidency at the Progressive Party Convention. Addams campaigned in 1912 for the Progressive Party. Addams supported Roosevelt based on his decision to support women's suffrage. Addams played a critical part in creating the platform for the party and campaigned on behalf of Roosevelt (Birn et al., 2003).

Birn et al. (2003) assert that, in 1915, AALL published a draft bill for compulsory health insurance and promoted campaigns in several states. After the campaign for the state-by-state adoption of workmen's compensation laws, the AALL turned its attention to sickness insurance, the next step toward social legislation. A few states showed interest, but failed to enact due to the United States entering into World War I. AALL published a draft bill, won the support of the American Medical Association (AMA), and

promoted compulsory health insurance campaigns in eight states. By 1917, given the Russian Revolution and the United States' entry into World War I, the national climate began to turn against reform (Birn et al., 2003).

According to Rodems, Shaefer, and Ybarra (2010), AMA drew initial support for health care reform. By 1920, the AMA reversed their position on health care reform. In 1921, women reformers persuaded Congress to pass the Sheppard-Towner Act, that provided matching funds to states for prenatal and child health centers. The Act expired in 1929 and was not reauthorized. The Act provided matching funding to states to reduce infant and maternal mortality. The funds were administered by the Children's Bureau. The Sheppard-Towner Act extended the work of the Children's Bureau to the states, and it was the first time that the federal government provided direct support for social welfare (Rodems, Shaefer, & Ybarra, 2010).

In 1927, a committee on the Costs of Medical Care reform studied the economic organization of medical care (Perkins, 1998). The group was comprised of economists, physicians, public health specialists, and other major interest groups. The group completed recommendations by 1932. Perkins (1998) noted that some members did not support the recommendation for medical group practice, although the majority endorsed the idea, along with voluntary health insurance. The committee tried to restructure medicine along lines consistent with its economic environment, while attributing various models to science, profession, and business (Perkins, 1998).

In the 1930s, America evolved. The National Health Insurance (NHI) and the New Deal called for government relief for accessible health care (Kaiser Family Foundation, 2009). The Great Depression arrived in 1929 and lasted until 1939. It

caused a period of rising income disparity and reduced the middle class. Unemployment soared to 25 percent. The leading cause of poverty was sickness, and welfare agencies paid for unpaid hospital and physician medical costs for the poor (Kaiser Family Foundation, 2009). Groups were organized for health promotion programs sponsored by the government. Unemployment was the top priority. A Committee on Economic Security was formed to focus on old age, unemployment, and medical care and insurance by President Roosevelt's administration (Kaiser Family Foundation, 2009).

The Social Security Act of 1935 was an omnibus bill, containing eleven (11) titles authorizing seven (7) distinct programs, only one (1) of which was the program we commonly think of as Social Security (Title II). Southern Democrats collaborated with Republicans to block government expansion (Kaiser Family Foundation, 2009). After the Social Security Act passed, a second federal agency was convened, in 1937, to improve health care reform (Kaiser Family Foundation, 2009).

Income disparities and access to health care had grown worse, medical costs were high, and sickness became a leading cause of poverty. The Great Depression and America's Dust Bowl of the 1930s provided large unexpected changes in early-life income that can be linked to unusually detailed information about old age disability and chronic disease (Cutler, Miller, & Norton, 2007).

After the resounding defeats, popular support for compulsory health insurance did not resurface again until the 1930s, in the midst of the Great Depression. President Roosevelt moved forward with his New Deal proposal. Over the next decade, health care became a national concern (Birn et al., 2003).

According to Markel and Golden (2005), state Medicaid programs for maternal and child healthcare were severely underfunded and administered. Patients had problems with enrollment barriers and low reimbursement rates. Documentation of child health poverty pointed to maternal employment. Reformers proposed maternal benefits of medical services to expecting women for reimbursement of lost wages that encouraged mothers to stay home and breast-feed their infants. It was feared that paying lost wages to low income mothers would reduce the supply of workers.

The National Health Insurance (NHI) and the Fair Deal caused reformers to move from a state-administered system and proposed health insurance as national, universal, and comprehensive part of Social Security. During World War II, in 1934, the War Labor Board ruled that certain work benefits, including health insurance coverage, should be excluded from the period's wage and price controls. Fee-for-service insurance had a growth spurt during the years of World War II. Wage and price controls were imposed to move money for the war. When the war ended, Roosevelt continued to push toward health insurance, as a part of his economic bill of rights. Three months after World War II ended, President Truman continued the national agenda and pushed Congress to pass a national program to ensure medical care as part of his "Fair Deal" agenda. A national health insurance legislative proposal appeared in 1943. President Truman pushed for a Federal rather than State administration plan (Kaiser Family Foundation, 2009).

“After Truman’s electoral victory in 1948, the doctors’ organization spent over \$1 million on anti-health reform public relations blitz that included advertising, television and radio spots, telegram and letter-writing campaigns, and the lobbying of legislators by their own personal physicians” (Hoffman, 2003, p. 77). Furthermore, unlike reformers,

AMA members successfully reached out to the grassroots with ‘doctor-to-patient’ letters denouncing the Wagner-Murray-Dingell bill” (Hoffman, 2003, p. 77).

Congress passed Social Security benefits. Reformers thought in terms of extending health insurance coverage to Social Security beneficiaries who were, with the exception of dependents of deceased workers, other beneficiaries and elderly individuals (Birn et al., 2003). Another shift took place in the 1960's. The Great Society of Medicare and Medicaid evolved. Health insurance was associated with full-time employment. Individuals who were retired, self-employed, unemployed, and underemployed did not have health care coverage. Universal health insurance grew out of need (Birn et al., 2003).

According to Center for Medicare and Medicaid Services (CMMS) (2011), "in 1954, Dwight Eisenhower proposed a plan to re-insure private insurance companies against usually heavy losses on health insurance as part of a comprehensive health and welfare program that Congress ultimately rejected" (p. 2). His proposal failed, but he did make significant progress by improving the services for the disabled. Legislation was passed in 1954, for states to assist the disabled population to return to work. An expansion to Social Security benefits was signed into law (CMMS, 2011).

Kaiser Family Foundation (2009) note that the National Health Insurance (NHI) proposal was developed from 1970 until 1974. Senator Ted Kennedy, supported the proposal for the elderly and the labor-led Committee for National Health Insurance. Hearings were held around the country and a report was issued entitled, "The Health Care Crisis in America." The efforts generated support for the plan. President Nixon countered with his own plan in 1971. Health reform was not successful as promised due

to personal problems and scandal; hence, the coverage for health care reform halted. The administration and Congress settled on Health Maintenance Organizations (HMOs) (Kaiser Family Foundation, 2009).

According to Tufts Managed Care Institute (1998), “in the late 1960s and early 1970s, politicians and interest groups of all stripes promoted various proposals for reforming the nation's healthcare system” (p. 2). In 1970, President Nixon was prodded to plan solutions to improve health care. New health insurance coverage linked Medicaid and public assistance. In 1971, Nixon's administrations announced health maintenance organizations (HMOs), a reversed fee-for-service and third party payments.

Kaiser Family Foundation (2009) points out that cost-containment trumped NHI from 1976 until 1979. President Ford withdrew his administration's NHI plan, thinking that it would cause inflation to get worse. As a presidential candidate, Jimmy Carter pledged that he would support a comprehensive NHI plan. President Carter shifted priorities that emphasized health care cost containment, specifically for hospital cost control. He thought that NHI would have to wait until costs were checked and the economy was stronger. Debate occurred on hospital cost-containment during his period which laid the foundation for the Medicare Prospective Payment System enacted in 1983 that changed the way the government paid for hospital care in a major way. It went from a charge-based system to a predetermined, set rate based on the patient's diagnosis (Kaiser Family Foundation, 2009).

Medicare Prospective Payment System cost cutting actions appeared to work (Griffith, 1986). The length of stay in the hospitals were down and expenditures were leveling off; however, the Consumer Price Index (CPI) increased 1.6 percent for the

economy, and medical care prices increased 7.6 percent in 1985. Health care policy changes were driven by the burden of increasing health-care spending in 1987. There was a huge concern about the quality of care patients were receiving (Griffith, 1986).

It was predicted that revolutionary changes would take place in health care policy under President Reagan. Major programs affecting the elderly, that were once targeted by his administration were still in place eight years later after he left office. Significant structural trends were initiated or reinforced for the elderly (Lanbrew, 2005).

President George H. Bush, proposed a "Comprehensive Health Reform Program" to deal with the uninsured Americans. Prior to his re-elections, it featured tax credits and vouchers. Under his administration, Medicaid coverage was expanded several times for women and children. Physician payment reform was enacted in 1989. For the first time, a new Medicare fee schedule was implemented (CMMS, 2011).

In the 1990s, health reform was the focus and had been since the Truman administration. Early 1990s found more Americans worrying about losing their health benefits and not being able to pay their medical bills in the future. "In October 2003, the Census Bureau released a report showing that fifteen percent of Americans (43.6 million) were without any health insurance in 2002, a 2.4 million increase from the previous year" (Marmor & Oberlander, 2004, p. 207). President Clinton's proposed Health Care Reform Plan, therefore, posed a threat to the future of health promotion programs. Incremental reform was not dead. In 1997, a Republican Congress and bipartisan support, enacted the Children's Health Insurance Program, building on the Medicaid program to provide health coverage to more low-income children (Marmor & Oberlander, 2004).

According to Lanbrew (2005), President George W. Bush wanted a profound change in health policy. He sought the conversion of Medicaid from an entitlement to a block grant. The goal of block grants was to provide a greater federal budget and a stronger state incentive to maintain program costs. However, results showed that previous block grant proposals' funding levels were different for national and state levels than what occurred. As a result, Medicaid could not maintain existing health coverage under the block grant financing structure (Lambrew, 2005).

Patient Protection and Affordable Care Act, 2010

On September 17, 2009, the Patient Protection and Affordable Care Act (H.R. 3590) was sponsored by Rep. Charles Rangel [D-NY15], and hoped to grant all Americans health care insurance and reduce the cost of medical coverage (Hoover, 2010). H.R. 3590 is a revised version of an earlier effort, America's Affordable Health Choices Act (H.R. 3200), proposed on July 17, 2009. The House of Representatives adopted this bill in November 2009, but the Senate did not pass it. The Senate passed an alternative health care bill, the Patient Protection and Affordable Care Act (H.R. 3590) introduced by Charles Rangel on September 17, 2009. The House responded by dropping H.R. 3962 and sending a revised bill named the Health Care and Affordability Reconciliation Act of 2010 back to the Senate for review (Hoover, 2010).

The health care system in America needed to be fixed. It has been an on-going presidential challenge: Presidents Nixon, Carter, and Clinton have all proposed health care reform bills during their presidential eras. The rise and fall of health care reform is the oldest story in American health politics. Time and again in the twentieth century,

reformers have unsuccessfully fought for expanded or universal health insurance (Marmor & Oberlander, 2004).

According to Davis and Somers (2011), President Obama signed the Patient Protection and Affordable Care Act (ACA) into law on March 23, 2010. Health care reform has been thought to be an inequitable and expensive health mass destruction to Americans. Over the years, universal health care has been rejected. Health care reform draws a large focus of positive and negative opinion in American politics. Some of the changes proposed by the Act are: dependent children up to the age of 26 will be able to remain on their parents health insurance plan; senior citizens will have more help from Medicare in paying for medications; and people with preexisting conditions previously uninsurable qualify for coverage (Davis & Somers, 2011).

Davis and Somers (2011) assert that the Act's most notable feature is a large-scale expansion of the number of people covered by qualified health insurance. ACA aims to improve access to care and health outcomes through a number of mechanisms including: requiring most individuals to carry health insurance; prohibiting insurers from denying health insurance coverage based on pre-existing conditions; and creating exchanges through which individuals and families not eligible for employer or government-sponsored health insurance may purchase coverage. The lack of health insurance is a public health problem (Davis & Somers, 2011).

Unemployment is high and the recovery is slow. Davis and Robinson (2010) inform that the health care industry is facing challenges – slow recovery to the economy, credit markets are tight, and reform to health care. In the past, the health care industry depended on financial institutions. The providers are facing drastic cuts in funding that

they once received in the past. The new reform will provide health care for 32 million Americans who did not previously have any (Davis & Robinson, 2010).

ACA provides opportunities to improve health for Americans. Public policy recently focused on partnership to improve health care service delivery and programs. ACA provides opportunities for states to improve public policy and programs (Chernof, 2011). According to Redwood (2010), the Patient Protection and Affordable Care Act of 2010 addresses prevention, promotes health, and provides integrative care.

Redwood (2010) contends that health care patterns must change to reduce diabetes, heart disease, hypertension, obesity, and cancer or the chronic diseases will cripple the health care system. The new Act seeks to change the alarming rates of health. President Obama has incorporated First Lady Michelle Obama's initiative prevention. The new law resulted in the National Prevention, Health Promotion and Public Health Council, within the Department of Health and Human Services. The council is chaired by the Surgeon General. A successful prevention program will require on-going education and public relations. The new law seeks to educate and reduce disease (Redwood, 2010).

The Affordable Care Act, guarantees health care access and begins to reduce health care costs for all Americans. Kocher, Emanuel, and DeParle (2010) comment that the Affordable Care Act not only removes many of these barriers but also puts in motion new policies and economic incentives that will change the practice of medicine for clinicians and the experience of care. The Act requires better communication and partnerships to improve service for consumers. The Act will allow the health care system to be more reliable and accessible (Kocher, Emanuel, & DeParle, 2010).

Kocher, Emanuel, and DeParle (2010) warn that not having health insurance is financially catastrophic when a major sickness occurs. Universal health care would help to reduce the rising cost of many insured and uninsured Americans. More than 45 million Americans are uninsured and, as a result, they experience increased morbidity and mortality. Health care costs have continued to rise through higher co-pays and deductibles. The Act will lower other health care costs. It makes preventive screening visits free by eliminating cost sharing and copayments, so serious conditions can be diagnosed when treatments are most effective (Kocher, Emanuel, & DeParle, 2010).

Hoover (2010) stresses that ACA creates legislative requirements to extend medical insurance coverage in two specific phases: (1) Provisions will go into effect in 2010; and (2) Provisions will go into effect in 2014. Smaller effects will stay through 2018. The bill called for health care reform. Once made law, the Congressional Budget Office (CBO) informed the federal deficit will decrease over the next ten years. The purpose of the legislation was to reduce costs associated with health care in this country (Hoover, 2010).

America is thought to have the best health care system in the world. This is a misconception that is being sold to the general population. The United States does not have the best health care system in the world. The World Health Organization (WHO) (2000) ranks the U.S. health system as 37th (Gardner, 2010).

The WHO measured efficiency and performance of health systems in different countries. The methodology employed in the WHO report relied on the following major components: (1) goal attainment (effectiveness); (2) health expenditures per capita; and (3) efficiency and the overall level of health performance (Coyne & Hilsenrath, 2002).

According to Coyne and Hilsenrath (2002), WHO 2000 report was constructive and contributed to an important dialogue among students of health systems. Such dialogue has encompassed a full spectrum of cross-national comparisons. The researchers hoped to continue the study and to promote efforts of wide publicity and drawn attention to the shortcomings of many health systems to promote a better health system to improve health conditions and services of individuals. The WHO provided six building blocks of a health system. The aims and desirable attributes that are needed to be addressed were based on: (1) health services; (2) health workforce; (3) health information system; (4) medical products, vaccines and technologies; (5) health financing; and (6) leadership and governance (Coyne & Hilsenrath, 2002).

The United States has made several attempts to reform health care. In a sense, health care reform dates back to 1912, when Theodore Roosevelt's Progressive Party called for "the protection of home life against the hazards of sickness, irregular employment and old age through the adoption of a system of social insurance adopted to American use" (American Presidency Project, 2011, para. 12).

The act promises to improve health care coverage. Jacobi, Watson, and Restuccia (2011) alert their readers that the new regulations do not go into effect until the year 2014. The regulations include: increase in Medicaid eligibility; requirement for health care coverage for everyone or a penalty will incur; and insurers will not be able to deny coverage based on a pre-existing condition. Exchanges, to be created by the states by 2014, will receive some funding and regulatory oversight from the federal Department of Health and Human Services (HHS) pursuant to Section 1311 (Jacobi, Watson, & Restuccia, 2011).

Delaying the effect of more controversial regulations won't take place until 2014. The next few years will be highly focused, political, pros and cons of the regulations taking effect in 2014. As the largest buyer of health care, the federal government is facing an increasingly ominous federal deficit (Jacobi, Watson, & Restuccia, 2011).

Gamage (2012) advised that some parts of the Act has been threatened to be replaced. The current Republican Party "have already embraced the idea of replacing the tax exclusions with refundable tax credits as part of their vision for reforming health care" (Gamage, 2012, p. 41). The Republican Party has a renewed fervor and purpose in campaigning to revoke some of the measures in the new law. "Replacing the tax exclusions with refundable tax credits was a centerpiece of Senator McCain's healthcare plan when he ran for President in 2008" (Gamage, 2012, p. 41). Recently, "Republican House Budget Committee Chairman Paul Ryan has argued for replacing the tax exclusions with refundable tax credits as part of his 'Path to Prosperity' plan. Gamage contends that:

If Democrats can be convinced of the importance of replacing the tax exclusions with refundable tax credits in order to avoid the harmful effective taxes that the ACA will otherwise impose on low- and moderate-income workers, then there may be room for a bipartisan compromise based on the Republicans' proposals (p. 41).

The fate of U.S. health care coverage is yet undetermined. There are many ways to streamline health care, increase quality of care, and decrease cost. The changes will ultimately make obtaining health care easier for the uninsured. The latest statistics reveal

that medical care costs are on the rise again and are outstripping growth in the rest of the economy (Jacobi, Watson, & Restuccia, 2011).

After the enactment of the law, numerous lawsuits were filed. “The parties’ arguments have centered around three constitutional provisions as a basis for the individual mandate: the Commerce Clause, the Necessary and Proper Clause, and the Taxing Power.

The Commerce Clause. The main constitutional provision at issue is Congress’ ability to regulate interstate commerce. Article I, Section 8 of the U.S. Constitution in pertinent part provides that “Congress shall have Power. . . to regulate Commerce with foreign Nations, and among the several States, and with Indian Tribes.” The Supreme Court’s existing Commerce Clause cases establish that Congress can regulate any economic activity that Congress rationally concludes is in the stream of or substantially affects interstate commerce. The text of this constitutional provision speaks to Congress’s ability to regulate commerce among the states and does not distinguish between economic activity and inactivity.

The plaintiffs argue that a decision to not purchase health insurance constitutes inactivity, which is not connected to interstate commerce, and therefore is not subject to regulation under Congress’ commerce power. Instead, the plaintiffs maintain that the individual mandate compels people to enter the stream of commerce, which they argue is an unprecedented use of Congress’ commerce power. They maintain that the federal government is one of limited enumerated powers, with all remaining legislative powers residing in the states, which retain the general police power to regulate for the general welfare.

In response, the federal government argues that because everyone will use health care at some point in their lives, and the need for expensive health care services can be unpredictable, Congress can validly require people to buy insurance to limit the costs imposed by the uninsured on the other people in the market. When enacting the ACA, Congress found that people who do not purchase health insurance typically do not pay the full cost of the health care services that they end up consuming, because for example, hospitals may not turn away people in need of emergency care. Instead, these costs are shifted to health care providers, insurers, and people who have insurance in the form of higher premiums, creating, in the federal government's view, a substantial burden on interstate commerce.

The federal government also argues that for the private health insurance market to function effectively, with affordable premiums for everyone – including people with pre-existing conditions – currently healthy people must participate in the market as part of the risk pool. In response to the plaintiffs' argument that upholding the individual mandate will not leave any meaningful limits on Congress' Commerce Clause power, the federal government argues that the appropriate check on Congress' exercise of its legislative/powers is the electorate, not the courts.

The Necessary and Proper Clause. The federal government also asserts that the individual mandate is a valid exercise of Congress' power to enact laws that are "necessary and proper" for executing its enumerated powers, such as the Commerce Clause. Article I, Section 8 of the U.S. Constitution in pertinent part provides that "Congress shall have Power. . . to make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this

Constitution in the Government of the United States, or in any Department or Officer thereof.” The plaintiffs maintain that the Necessary and Proper Clause is not an independent source of federal legislative power, and if, as they argue, the mandate is an invalid exercise of the commerce power, it cannot be saved by the Necessary and Proper Clause.

The Taxing Power. The other constitutional provision at issue regarding Congress’ power to enact the individual mandate is the taxing power. The federal government argues that the individual mandate’s “practical operation” is as a tax because the financial penalty for failure to comply with the mandate will be administered through the tax code and reasonably relates to the raising of some amount of federal revenue. The plaintiffs argue that the mandate is not a valid exercise of Congress’ taxing power because the sanction for failure to comply with the mandate operates as a civil regulatory penalty and not as a tax” (Kaiser Family Foundation, 2012, pp. 4-5). In June, 2012, the United States Supreme Court upheld the Affordable Care Act (ACA).

The World Health Organization developed an initiative Towards Unity for Health (TUFH) in 2000. The initiative was to promote unity and study health service delivery. The aim of the organization is to improve health care service delivery and improve the needs of the population. The conceptual model requires partnership to improve service delivery (Groene & Branda, 2006).

Davis and Somers (2011) believe that health care is viewed as a business enterprise and is rapidly moving from a consumer driven entity. The idea of universal health care is based on reducing cost. The push for universal health care is to provide coverage for all Americans without exception. While the Act is aimed primarily at

improving individual health by increasing access to health insurance, it also contains a number of provisions targeted directly at improving health at the population level. Lack of access to health insurance and/or no health care is, however, a public health problem (Davis & Somers, 2011).

The need for better health care is a pressing social challenge in America. Redwood (2010) maintains that while most report on the recent national health reform debate in the United States, it emphasized the new health care law's expansion of coverage, efforts at cost containment, requirement to purchase insurance for patients needing help, and new federal regulation of the insurance industry. Some of the most important long-term impacts of the Patient Protection and Affordable Care Act of 2010 may spring from less-noticed provisions, particularly from those that are focused on prevention, health promotion, and integrative care (Redwood, 2010).

Health care is highly regulated. Although the key choices ultimately rest with each individual, representative government can play an active and essential role as well, coordinating (in partnership with private and nonprofit sector health advocacy groups and associations of health professionals) a multifaceted, long-term campaign for the promotion of health (Redwood, 2010).

Without regulation, health care would be a nightmare. The Centers for Disease Control and Prevention (CDC) has health initiatives (Redwood, 2010). This agency provides a necessary standard that must be met. The standards put in place by this agency have saved the public from outbreaks of disease and promote health. Due to recommendations made by the CDC, health exams are considered routine care to prolong the quality of life. The Surgeon General, the National Institutes of Health, the Centers

for Disease Control and Prevention, and many other federal and state agencies have a variety of programs in place (antismoking, antiobesity, etc.) that pair noble aspirations with limited resources. Some of these programs, particularly for smoking cessation, have been very effective vehicles of change (Redwood, 2010).

Davis and Somers (2011) remark that Patient Protection and Affordable Care Act of 2010 created a prevention program to further reduce disease. The program is the first in the National Prevention, Health Promotion and Public Health Council, which is charged with coordinating and providing leadership in prevention, wellness, and health promotion (Davis & Somers, 2011).

The government will depend on this agency to provide information and services to the local community and grass roots organizations. The Council, chaired by the U.S. Surgeon General, is also tasked with developing an evidence-based, achievable national strategy for improving the health status of Americans and preventing avoidable illness and disability (Davis & Somers, 2011).

United States Surgeon General

The Department of Health and Human Services (2010) reports that the U.S. Marine Hospital Service was created in 1798 by Congress. It was established as a national hospital system with centralized administration under a medical officer, the Supervising Surgeon. Later, the title was given of Surgeon General. The office of the U.S. Surgeon General was created in 1870 to oversee the Marine Hospital Service, a national hospital system for sailors that is the ancestor of the U.S. Public Health Service (USDHHS, 2010).

In 1889, the Surgeon General gained the additional responsibility of running the Commissioned Corps, a personnel system of doctors and other professionals that from the beginning were organized along military lines (USDHHS, 2010). Commissioned Corps members staffed the hospital service and subsequent federal public health agencies that were created, such as the National Institutes of Health (NIH), the Food and Drug Administration (FDA), and the Centers for Disease Control and Prevention (USDHHS, 2010).

According to the U.S. Department of Health and Human Services (2010), the Surgeon General was the head of the Public Health Service agencies, including the NIH, FDA and CDC, with control over the administrative and financial management. The Surgeon General is appointed by the President and confirmed by the Senate. In the past, the Surgeon General reported directly to the U.S. Secretary of Health Education and Welfare; however, that changed in 1968, when those powers were transferred to the new position of Assistant Secretary for Health. The Surgeon General was stripped of control over staff and financial resources, and became an advisor within Health, Education, and Welfare (USDHHS, 2010).

The Surgeon General remains head of the Commissioned Corps, but does not have the ability to transfer or command Corps members aside from the dozen or so who report to the position (USDHHS, 2010). The Surgeon General cannot order implementation of a program or enforce a law; however, the Surgeon General can carry out one influential role of being a spokesman for the Public Health Service. The position carries a historical prestige, which draws audiences and commands attention. In other

words, their real power lies in the fact that they can set priorities and establish strategies for Americans. They face constraints in how they yield their power (USDHHS, 2010).

Vision for a Healthy and Fit Nation

The Surgeon General report, *Vision for a Healthy and Fit Nation*, addresses the epidemic of overweight and obesity that threatens Americans (USDHHS, 2010). The initiative seeks to address the impact of the increasing number of the nation's current epidemics of diabetes, heart disease, and other chronic diseases. The program was designed to reduce the epidemic portions of overweight and obesity rates that are drastically increasing (USDHHS, 2010).

The *Vision for a Healthy and Fit Nation* report seeks to achieve national health objectives to encourage the adoption and maintenance of good health behaviors, such as physical activity and healthy dietary habits. The current Surgeon General, Dr. Regina M. Benjamin, understands the relationship between physical activity and healthy dietary habits. Identification of this association has enabled her to take action to address overweight and obesity that will increase the quality and years of healthy life and eliminate health disparities in the United States (USDHHS, 2010).

Pratt, Epping, and Dietz (2009) note that the CDC plays an important part in physical activity (PA) by using data from science, policy, and practice on exercise and fitness. In 1964, cardiologist Samuel Fox led the National Institutes of Health (NIH) and established a National Center for Chronic Disease Control. The center examined the relationship between PA and heart disease, while measuring the integration between exercise science and public health, and how public health programs may possibly

develop. Nearly 20 years passed before PA surfaced again at CDC (Pratt, Epping, & Dietz, 2009).

Pratt, Epping, and Dietz (2009) state that, in the 1980s, PA was not a concern to CDC, but did develop surveillance systems to collect the data. PA re-emerged in the 1990s due to the increase of cardiovascular disease. In 1992, the Surgeon General's Report on PA and Health resulted. PA received international attention as a public health concern. In 1998, the World Health Organization (WHO) requested CDC to partner to promote a global PA promotion. First, CDC can contribute support to programs by providing adequate funding. Second, CDC can develop more partnerships. Third, CDC can ensure that adequate evaluation tools exist (Pratt, Epping, & Dietz, 2009).

According to the 1996 Surgeon General's Report by Dr. Audrey F. Manley (USDHHS, 1996), physical activity behaviors need to be changed in America. The lack of physical activity is a serious health problem. The most important findings yielded in the report were that Americans of all ages can improve the quality of their lives through a lifelong practice of moderate physical activity (USDHHS, 1996).

Dubbert (2002) surmises that the Surgeon General's report is the most important publication of the decade identifying lack of physical activity as a problem. Each year American deaths are attributed to a lack of regular physical activity. Thus, physical activity is an important component of a healthy lifestyle. Low levels of physical activity continue to be a major public health challenge in almost every population group of developed countries (Dubbert, 2002).

The U.S. Department of Health and Human Services (1996) contends that health benefits from physical activity can be obtained by most Americans. The major purpose

of the report was to summarize the key findings from the literature on physical activity and to improve the health of Americans. Overall, individuals with moderate to high levels of physical activity or cardiorespiratory fitness show lower mortality and morbidity rates when compared to persons leading sedentary lifestyles or maintaining low cardiorespiratory fitness (USDHHS, 1996).

The Department of Health and Human Services (1996) further asserts that lack of physical activity increases the risk of coronary heart disease and other diseases. Although the benefits of physical activity are clearly documented, only a small percentage of the population engages in aerobic exercise. Throughout much of recorded western history, philosophers, scientists, physicians, and educators have promoted the idea that being physically active contributes to better health, improved physical functioning, and increased longevity (USDHHS, 1996).

The Vision for a Healthy and Fit Nation report seeks to address the epidemic of overweight and obesity that threatens America. The burden of obesity is disproportionately borne by some racial and ethnic groups. For example, among 40- to 59-year-old women, about 52% of non-Hispanic blacks and 47% of Hispanics are obese; for non-Hispanic whites, the prevalence is 36% (USDHHS, 2010).

Health has not always been an important focus as it is today. Accumulating evidence of the effects of activity on health encouraged national organizations and public health agencies to formulate new position statements and recommendations to guide the public, health care providers, exercise professionals, researchers, and policy makers (Dubbart, 2002).

A healthy diet is important. The U.S. Department of Health and Human Services (2010) warns that increase in high calorie foods and an increase of sugars in foods is associated with obesity. An increase in television watching is associated with obesity in adults. Prevention of obesity should not focus on behaviors and biological factors, but on social and physical environments (USDHHS, 2010).

The Surgeon General's report seeks to address important roles to play in the prevention of overweight and obesity, and the negative impact on one's health. Increased physical activity is recommended by the U.S. Centers for Disease Control and Prevention (CDC) and the American College of Sports (USDHHS, 2010). The report informs that physical activity is not the only lifestyle behavior that needs to be improved. An increase in consumption of foods high in dietary fat has been implicated as a causal factor in the etiology of many diseases and disease-risk factors, including coronary heart disease, hypertension, non-insulin-dependent diabetes mellitus, certain cancers, and obesity (USDHHS, 2010).

National Prevention Strategy

In 2009, America spent \$2.5 trillion on health care and provides some of the world's best health care, according to the National Prevention Council (2011). The U.S. ranks below many countries in terms of life expectancy, infant mortality, and many other indicators of healthy life. The nation has greater health problems that can be prevented. Eating healthfully and engaging in regular physical activity are two ways people can achieve a healthy lifestyle. Health is more than the absence of disease. Physical, mental,

and social well-being are included. ACA created the National Prevention Strategy to focus on prevention (National Prevention Council, 2011).

According to Redwood (2010), research has proven that prevention helps people live long and productive lives and can help combat rising healthcare costs. One of the top priorities of the Obama administration is to help Americans live more healthful lives. If prevention is not adopted as a new pattern of change, the nation's economic system will be crippled by increased rates of diabetes, heart disease, hypertension, obesity, and cancer. The National Prevention Strategy was developed as a road map to help Americans achieve the goal of having healthy lives and developing public and private partnerships to build healthier communities using evidence-based practice (Redwood, 2010).

The National Prevention Strategy includes actions that public and private partners can use to help Americans remain healthy and fit and improve the nation's well-being (National Prevention Council, 2011). The strategy outlines four strategic directions that are fundamental to improving the nation's health: Building Healthy and Safe Community Environments; Expanding Quality Preventive Services in Both Clinical and Community Settings; Empowering People to Make Healthy Choices; and Eliminating Health Disparities. Of the four strategies, this research will focus on Building Healthy and Safe Community Environments due to physical activity being addressed in this specific section of the prevention strategy (National Prevention Council, 2011).

According to United States Department of Health and Human Services (2011), Surgeon General Regina Benjamin informed that the strategy will help create a healthy and fit nation if Americans are involved in making prevention a part of their daily lives

through the leadership and council. The National Prevention Strategy was created with guidance from various public groups and is supported by the Advisory Group on Prevention, Health Promotion, and Integrative and Public Health as called for under the Patient Protection and Affordable Care Act. The group listened during sessions at national and regional meetings, webinars, and town hall meetings across the country to develop the initiatives for the program. The advisory group and the public had the opportunity to work with the council members to craft the strategy to improve the lives of Americans (USDHHS, 2011).

The U.S. Task Force on Community Preventive Services (2002) recommends that individuals add physical activity into a regular part of their daily lives through a grass roots effort. The report recommends that interventions should take place in various places, with communities, policymakers, and public health providers to assist in implementing the change and increase physical activity in Americans. The task force created an empirical based intervention guide of the economic barriers, and grouped the recommendations into different strategic approaches: informational, behavioral, social, environmental, and policy. The task force addressed populations rather than individuals in an effort to impact change among the populations (Task Force on Community Preventive Services, 2002).

Public Health Interventions to Increase Physical Activity in Georgia

Georgia Nutrition and Physical Activity Initiative's Demonstration Projects' (2011) "initiative focuses on promoting and increasing breast feeding, increasing healthy eating, increasing physical activity, and reduced television/screen time in various settings

by promoting education and building skills, and implementing policy and environmental changes." The goal is "to prevent and control obesity and other related chronic diseases" (Georgia Nutrition and Physical Activity Initiative's Demonstration Projects, 2011).

According to Ku, Jones, Shin, Bruen, and Hayes (2011), obtaining adequate health care in Georgia is a problem for the uninsured. One reason that some states, such as Oklahoma, Georgia, and Texas, have so few primary care physicians may be that high rates of uninsured residents and poverty make it harder for them to attract and retain practitioners. "Expansion of ACA, would benefit the state and residents in Georgia" (Ku et al., 2011, p. 495).

Access to health care is a problem in Georgia. Insurance coverage is a strong determining factor whether individuals residing in Georgia can obtain health care coverage. Having access to quality health care can lead to quality of life. In 2007, adults with no health insurance in Georgia were "19.5% compared to 16.6% of the U.S. In 2007, more than 1 million Georgia adults had no health insurance" (Bryan, 2007, p. 32).

Bryan (2007) points out the following:

- Significantly more black adults than white adults did not have health insurance;
- Significantly more adults whose household annual income was less than \$35,000 a year did not have health insurance than adults in households that earned \$35,000 or more;
- Significantly more adults with less than a high school education did not have health insurance than adults with some college or college graduate (p. 32).

The Georgia Behavioral Risk Factor Surveillance System (2007) data summary informs that: "Obesity in Georgia 2007 resulted in 28.7% compared to 26.3% of the U.S. Healthy People 2010 Objective: <15% . In 2007, out of more than 1.9 million adult Georgians, more than one in four, were obese" (p. 6).

Bryan (2007) also noted the following:

- Significantly more black adults were obese than White adults;
- Obesity was significantly more common among adults whose annual income was less than \$15,000 than among adults whose annual income was equal or greater than \$35,000;
- Obesity was significantly more common among adults with some college education or less than among adults with a college degree (p. 6).

Research shows that "24.7% of adults in Georgia who are physically inactive during leisure time compared to 23.0% of the U.S. The Healthy People 2010 Objective: < 20%. In 2007, more than 1.7 million adult Georgians were physically inactive during their leisure time" (Bryan, 2007, p. 26). According to Bryan (2007):

- Physical inactivity during leisure time was more common among women than men;
- Physical inactivity during leisure time was more common among black adults than White adults;
- Physical inactivity was significantly more common in adults 45 years or older compared to adults 18-24 years of age;

- Physical inactivity during leisure time was significantly more common among adults with less than a high school education than among any other level of education;
- Adults with no health insurance were significantly less physically active than adults with health coverage (p. 26).

In 2009, according to "the Behavioral Risk Factor Surveillance System (BRFSS), 46% of adults in Georgia were regularly active, 42% were insufficiently active, and 13% were inactive" (2010 Georgia Physical Activity Surveillance Report, 2010). Research showed that walking is the most common form of physical activity. "Adults living in the Cobb-Douglas and DeKalb health districts were most likely to be regularly active" (2010 Georgia Physical Activity Surveillance Report, 2010, p. 9). Furthermore, "the lowest rates of regular activity were found in the Northwest, South Central and Southeast health districts. Regions of high regular activity have remained consistent since the 1990s" (2010 Georgia Physical Activity Surveillance Report, 2010, p. 10).

There are health problems in Georgia. Georgia's data proves that obesity is higher than the national average. Prevention can be controlled by changes recommended by the U.S. Preventive Services Task Force: informational, behavioral, social, environmental, and policy. Georgia's intervention efforts include: adopting community campaigns; encourage change to individual behavior; enhance the educational system; encourage social support; create informational outreach; and improve the built environment.

Planned Physical Activity

Bauman and Craig (2005) advised that, in May 2004, there were efforts to increase physical activity by The World Health Organization, which released a Global Strategy for Diet and Physical Activity in an attempt to reduce the global burden of non-communicable disease. Physical inactivity is important because non-communicable diseases rank between the second and sixth contributing factor to the population burden of disease in westernized countries (Bauman & Craig, 2005). Physical activity is now the most important prevention aim to promote a healthy lifestyle. It is more important than tobacco control. Measuring physical activity to promote a healthy life style is a challenge for researchers. Physical activity measurement is important to policy makers for program evaluation and research (Bauman & Craig, 2005).

According to Keefee (2010), research has been published on racial and ethnic disparities since 2001. Some progress has been made in reducing disparities; however, more work needs to be done. Healthy People 2010 identified objectives to guide health promotion and to eliminate health disparities, in 2001, which was published by the U.S. Department of Health and Human Services. Progress has been made. “Although progress has been made in eliminating the disparities, ongoing work by public health social workers, researchers, and policy analysts is needed” (Keefee, 2010, p. 237). Keefee notes that “to date, only a handful of several hundred studies find no racial and ethnic differences in healthcare. When statistically controlling for various factors including socioeconomic status, disparities by race and ethnicity in healthcare continue to emerge” (p. 248). Keefee further asserts that “although progress has been made in some areas, there are still many other health areas where much work is needed” (p. 248). The author

goes on to say that “public health social workers, researchers, and health policy analysts will continue to be called upon to help eliminate the ongoing disparities so that all Americans have access to needed healthcare” (Keefee, 2010, p. 248).

According to Johnson (2005), there has been progress in meeting Healthy People 2010 goals for Americans. African-American (AA) men and women continue to have higher mortality and morbidity rates as compared to Caucasian Americans. The problem may be related to lifestyle behaviors. The study examined gender differences among AA lifestyle behaviors. A descriptive comparative design was used. A sample of 223 AAs who resided in the southeastern region of the United States was collected. Health promoting lifestyle profile (HPLP) was used to measure health-promoting behaviors (Johnson, 2005).

Independent t-test analysis revealed no statistically significant gender differences for total HPLP scores, $t(220) = -1.49$, $p = 0.14$ (Johnson, 2005). Controlling for income, education, and marital status, no significant interactions were seen with gender on HPLP. Independent t-test analyses revealed statistically significant differences for interpersonal relationship support, $t(221) = -1.97$, $p = 0.05$, health responsibility, $t(214) = -2.46$, $p = 0.02$, and nutrition $t(219) = -3.27$, $p < 0.01$, with women scoring higher than men. Gender differences in AAs was evident for exact health-promoting lifestyle behaviors, the differences become less dominant when education and marital status was used as covariates (Johnson, 2005).

In 2005, deaths of African Americans from heart disease exceeded the US rate by 31% and African Americans were 1.3 times more likely to die from heart disease than whites (Howell, Tucker, & Liburd, 2011). This research demonstrated a strong

correlation between physical activity, low risk for heart disease, and complications. CDC partnered with Racial and Ethnic Approaches to Community Health (REACH) program, which financed 40 communities in the United States in 1999-2007. Three of the 40 communities implemented the interventions to increase physical activity among African Americans (Howell, Tucker & Liburd, 2011).

Howell, Tucker, and Liburd (2011) noted that this study observed interventions and provided additional evidence-based proposals from CDC's Community Guide for Preventive Services. The recommendations addressed improving access to physical activity and provided physical activity information via media campaigns. The evidence revealed culturally sensitive approaches has the ability to meet unique characteristics in the African-American population as it relates to risk for heart disease, which has the ability to contribute to increased physical activity (Howell, Tucker & Liburd, 2011).

According to Raja, Ma, and Yadav (2008), there is insufficient physical activity among black women. At the same time, due to the built environment, regular physical activity is difficult. Many black women live in environments that do not offer sidewalks, walking paths, or healthy fresh food options. Some of what we know about racial disparities in food access is based on what we know about urban neighborhoods, since these neighborhoods are often home to racial minorities (Raja, Ma, & Yadav, 2008).

As a result of the racial disparities, many black women have limited access to fresh food, but are often exposed to high calorie foods (Harley, Odoms-Young, Beard, Katz, & Heaney, 2009). This fact may address the higher percentage of overweight and obesity levels in black women. National reports indicate in regards to health and physical activity blacks suffer the worst health status and are the least physically active.

Specifically, African-American women have high rates of physical inactivity and insufficient activity compared to women from other racial/ethnic backgrounds (Harley et al., 2009).

A study conducted by Wang, DesMeules, Luo, Dai, Lagace, and Morrison (2011) revealed that women and men are emotionally vulnerable in different ways. The aim of the study was to assess Canadians' long-term effects of leisure-time physical activity (LTPA), changes in LTPA, and marital status risk of developing depression in general. The method used was examination of data from the biennial National Population Health Survey (NPHS) cycles between 1994/95 and 2004/05 in 2008. The study excluded individuals with preexisting depression at baseline. The participants were categorized as physically active or inactive and tracked for risk of developing depression. The results in 1994 and 1995 included 17,276 participants in the NPHS longitudinal panel (Wang et al., 2011).

Wang et al. (2011) reported that participants that were inactive were more likely to be older, female, obese, widowed/separated/divorced, not working, low income, and lacking social support. The controlling confounding factor found was that LTPA reduced the risk of women developing depression. Women who were active at baseline and at two years of follow-up were significantly less likely to report depression at four years of follow-up compared to women who were inactive at baseline and at two years of follow-up. Observed over 2 years, there was a 51% greater probability of women who changed their LTPA from active to inactive developing depression compared to women who were active. The conclusion of the study resulted in precautionary effects on depression in women. A reduction in LTPA level is associated with subsequent

depression for women. Divorced, separated and widowed women are at particularly higher risk of developing depression if LTPA is stopped (Wang et al., 2011).

According to Yu (1998), the U.S. Department of Health and Human Services set the first national health promotion and disease objectives in 1979 to improve the health of the entire population. Healthy People developed 298 objectives to be reached by millennium. The objectives were set by a professional public health expert panel. The main objective is to set health priorities and goals for the federal, state and local health improvement (Yu, 1998).

Keppel, Bilheimer, and Gurley (2007) assert that the first goal of Healthy People is to improve the quality of life for Americans. The second goal is to decrease ethnic and racial disparities. The U.S. Department of Health and Human Services (HHS) has 955 objectives and sub objectives to improve the nation's health. In 2006, the Healthy People 2010 midcourse review revealed that without accelerated improvements for racial and ethnic populations with unfavorable rates, health disparities will continue (Keppel, Bilheimer, & Gurley, 2007).

Gibbs, Nsiah-Jefferson, McHugh, Trivedi, and Prothrow-Stith (2006) advise that the goal of Healthy People is to reduce racial and ethnic disparities in health data and health care. Healthy People 2010 was a top agenda item for George W. Bush. States are in the spotlight to improve the focus of the policy efforts. In addition, it is important for states to focus on being responsible for health and public health infrastructure. Gibbs et al. note that some states have not made change to collect data in modern times. Many states continue to use aims from Margaret Heckler's report by race in 1985. The report pointed out health care disparities. Continued work and discussion is needed including

which variables should be part of the Disparity Reduction Profile (REHD) calculations, introduced as an ongoing measure to improve state-level effort to reduce REHD (Gibbs et al., 2006).

According to the CDC (2011), Healthy People 2020 has made numerous recommendations to combat the growing problem of inactivity. Set guidelines have been provided to increase physical activity. For this report, respondents considered to be engaging in regular physical activity were those who met the Healthy People 2010 objective of at least 30 minutes a day of moderate-intensity activity on 5 or more days a week, or at least 20 minutes a day of vigorous-intensity activity on 3 or more days a week, or both (CDC, 2007a).

According to Zoller (2005), Healthy People addresses health disparities on policy issues for women because of the significant gender disparities in health status in the U.S. Solutions to women's health is improved through HP. Public health agencies in the U.S. must devise ways to influence women's health by economic, political, and cultural structures to combat racism and classism for minority and poor women.

Moudon and Lee (2003) remarked that one of the major preventable health risks among the U.S. population is physical inactivity. More than 60% of adults in America do not engage in the CDC-recommended amount of physical activity. Research suggests educating adults about the benefits of physical activity and an active lifestyle to make them consciously aware of the importance of physical activity. The most easily accessible physical activity is walking. As activities have been easily integrated into the routine of everyday living, walking and bicycling have been seen as more likely to

induce frequent, regular, and habitual physical activity than structured types of exercise (Moudon & Lee, 2003).

Today's environment is not necessarily built to promote easy access to sidewalks for running, walking, and bicycling (Handy, 2002). Further, research demonstrates that the built environment is not integrated into everyday life. The environmental area should function to create a livable community. For example, historical work demonstrated how, at the turn of the twentieth century, increase in technology caused a limit in participation in light or low intensity physical activities. Americans' lives have changed drastically in the 20th century and will continue to do so in the next century (Handy, 2002).

According to McKenzie and Johnson (2001), physical activity is related to a woman's health and her nutritional needs. Women must be inspired to set goals to change eating behaviors that are obtainable. Americans are attacked with nutrition information through the media – books, magazines, television, the internet, and newspapers. The information supplied is not based on scientific evidence. Physical activity is directly related to a woman's health and nutritional needs. Fifteen of the HP objectives can be used as stepping stones to improve women's health (McKenzie & Johnson, 2001).

Hussain and Rivers (2009) comment that the baby boomers will increase from 35 million to 87 million in 2000 - 2050. The aging population, 10.6 percent, will outnumber adults 25 - 64 years old, 6.6 percent. It is important that the health care system is repaired for growth. Cost must be controlled. The uninsured Americans will place a burden on doctors, hospitals, and clinics. The cost of health care in the U.S. is rising. A penalty for not reforming health care now would bankrupt Medicare. In the next nine

years, an increase to the nation's overall health care costs will rise in ten years from \$2.1 trillion to \$4 trillion. The American Medical Association (AMA) is in support of repairing the entire health care system (Hussain & Rivers, 2009).

According to Hussain and Rivers (2009), management of chronic disorders will continue to account for increasing health care costs in the U.S. This, in turn, will escalate health care costs due to chronic disorders that can easily be managed by involvement in planned physical activity. The cost of chronic disorders is not only a financial burden, but increases the mortality rate. Cardiovascular disease (CVD) and obesity account for increasing the rate in women.

A review of regular planned physical activity, according to one defining fact, is social support (Ball, Jeffery, Abbott, McNaughton, & Crawford, 2010). Perhaps the most frequently-examined and well-established social contextual correlate of physical activity and healthy eating behaviors is social support, including emotional, instrumental, and informational support. The cross-sectional study design revealed the importance of social norms for physical activity and eating behaviors. Also, it suggests that it should be independent from social support. Promoting physical activity and healthy eating could incorporate strategies aimed at modifying social norms relating to these behaviors as an intervention strategy (Ball et al., 2010).

Melkevik, Torsheim, Iannotti, and Wold (2010) noted that a study was conducted to determine if screen-based sedentary behavior is associated with reduced levels of physical activity. Physical activity has decreased in children. The study suggested that parents should limit their children's screen-exposure to two hours per day or less (i.e., television, video games, and computers). Sedentary behavior is the second defining facet

in reduction of physical activity. One of the ways screen-based sedentary behaviors have been hypothesized to influence health is through displacing time that could otherwise have been used for physical activity (Melkevik et al., 2010).

According to the Centers for Disease Control (2010b), regular physical activity is associated with overall health. Research shows the health benefits of regular physical activity is obtained by increasing the amount of physical activity. Physical activity is important to control weight. Research shows that “physical activity, essential to overall health, can help control weight, reduce the risk of heart disease and some cancers, strengthen bones and muscles, and improve mental health” (CDC, 2010b, p. 1). Physical activity increases your mental health mood and chances of living longer.

According to Shirley, Van der Ploeg, and Bauman (2010), regular physical activity is a primary and secondary prevention for cardiovascular diseases. Regular physical activity provides health benefits, such as reduction in risks of coronary heart disease, hypertension, diabetes mellitus type 2, obesity, and premature mortality. Being physically inactive has a negative effect on an individual’s health and increases the cost of medical care. Regular physical activity decreases all-cause mortality risk by 20% to 30% compared with insufficient activity (Shirley et al., 2010).

The Centers for Disease Control and Prevention (2010) recommends women of all ages should be physically active, preferably daily. For substantial health benefits, adults should do at least moderately intense activities (such as 30 minutes of brisk walking), or shorter sessions of more strenuous activities (such as 15-20 minutes of jogging). Women who have been sedentary should start with short intervals (5-10

minutes) of physical activity and gradually build up to the desired level of activity (CDC, 1999).

Based on empirical evidence, short periods of physical activity throughout the day totaling at least 30 minutes or longer, can provide significant health benefits. Globally, the anticipated life expectancy for women, by the year 2006, exceeded that for men because of women's healthier lifestyle. "The best two constructs of increasing health behaviors are based on self-efficacy and planning" (Hankonen, Absetz, Ghisletta, Renner, & Uutela, 2010, p. 56).

Regular physical activity is a proven risk factor for premature morbidity and mortality (NPC, 2011). Although America provides some of the world's best health care and spent over \$2.5 trillion for health in 2009, the U.S. still ranks below many countries in life expectancy, infant mortality, and many other indicators of healthy life. The social, economic, and environmental aspects are factors to healthier lives. Individuals who have a quality education, stable employment, safe homes and neighborhoods, and access to preventive services live healthier and longer lives (NPC, 2011).

Knowledge is critical to preventing disease, but communities should support individuals living healthier lives (NPC, 2011). The National Prevention Strategy wants prevention for all Americans. However, the focus is for those who are disproportionately burdened by poor health. They want to guide American to better health and well-being. The focus is to work together with communities to provide good health outcomes. The strategy directions are: Healthy and Safe Community Environments, Clinical and Community Preventive Services, Empowered People and Elimination of Health

Disparities (NPC, 2011). Within this research, the focus will be on Elimination of Health Disparities due to active living being a priority under the framework.

The U.S. Department of Health and Human Services (2011) reports that annual costs in the U.S. for diseases associated with physical inactivity are increasing. Researchers show that there are increased death rates per year in the U.S. associated with physical inactivity. The United States, Healthy People 2020 has two objectives. The two objectives are 22-1: Reduce the proportion of adults who engage in no leisure time physical activity and 22-2: Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day (USDHHS, 2011). This initiative sets national objectives to encourage increased physical activity in Americans. Lack of physical activity is a national problem. The objective of the program is to set national objectives every ten years aimed at promoting health and preventing disease. The aim to increase adults to engage in regular, moderate or vigorous physical activity and decrease adults who engage in no leisure time physical activity. More than 80 percent of adults do not meet the guidelines for both aerobic and muscle-strengthening activities (USDHHS, 2011).

According to Fenton (2005), 1 in 4 adults in America meets the U.S. General's recommendation of leisure-time physical activity. America should create environments that encourage physical activity as a routine part of their day. Walking and biking friendly space is growing due to understanding of how to develop pedestrian-friendly environments. Community leaders must develop programs and policies to produce environments that attribute to 4 essential aims: increase compact neighborhoods; walking trails, biking paths, and mass transit that is pedestrians friendly.

Mochari-Greenberger, Mills, Simpson, and Mosca (2010) advise that disparities in cultural and racial differences have been well documented. Cardiovascular disease (CVD) outcomes and risk factors data evaluated different population in CVD knowledge, preventive action, and barriers to prevention. A national sample of 1008 women (17% Hispanic, 22% black, 61% white=other) were selected through random digit dialing were provided a standardized questionnaire on knowledge of health risk factors, current preventive actions, and obstacles to reduce prevention. The knowledge and preventive in the past presented barriers on prevention of CVD risk factors.

According to Mochari-Greenberger, Mills, Simpson, and Mosca (2010), a logistic regression was used to determine if race=ethnicity was independently associated with knowledge and preventive action. The results of the racial=ethnic differences risk factors information was recognized but, Hispanic women were 44% less likely than white=others to know the optimal high-density lipoprotein cholesterol (HDL-C) level (odds ratio [OR] 0.56,95% confidence interval [CI] 0.35-0.91). Knowledge of blood pressure goal was lower among those with less than a college education (OR 0.59,95% CI 0.44-0.79). Hispanics were twice as likely as white=others to help someone else lose weight. Also, (78,95% CI 1.17-2.71) of add physical activity was added (OR 1.95,95% CI 1.18-3.22) in the past year. Blacks were more likely than whites=others to report decreased unhealthy food consumption (OR 1.77,95% CI 1.08-2.93), attempting to lose weight (OR 1.62,95% CI 1.06-2.47), and taking initiative when experienced CVD symptoms (30% vs. 23%, $p=0.03$). Continual aims to improve and provide knowledge on CVD is needed, for less educated and Hispanic women who might activate others to reduce CDV risk (Mochari-Greenberger et al., 2010).

Branch, Pate, and Gourage (2000) noted increased prevalence of sedentary behaviors and less physical activity participation among women at levels recommended by the Surgeon General. The result showed that women are identified as a target group in public health initiatives to raise physical activity. The hypothesis was that moderate and vigorous physical activity routines offer similar estimated energy expenditure that resulted in similar changes in cardiorespiratory fitness. Eighteen sedentary premenopausal participants were randomly assigned to either vigorous or moderate intensity physical activity groups. The training was conducted 3-4 (3.37 6 0.05) days/week for 12 weeks in a supervised environment. Both groups had lower ($p, 0.05$) after training which resulted in submaximal heart rates (HR), respiratory exchange ratios (RER), and ratings of perceived exertion (RPE) during graded exercise testing, with no significant differences between the groups in post training. The women participating in the moderate intensity exercise training was recommended by the public health guidelines demonstrated an increase in cardiorespiratory fitness like that of vigorous training (Branch, Pate, & Bourque, 2000).

According to the report by Villablanca, Beckett, Li, Leatherwood, Gill, Giardina, and D'Onofrio (2010), the study's objective was to improve the supply of information, reduce cardiovascular disease (CVD) risk, and reach Healthy People 2010 objectives among women in a women's heart program. The methods utilized a 6-month pre and post-longitudinal educational involvement of 1310 women whom were high-risk patients at six U.S. women's heart program. The American Heart Association/American College of Cardiology (AHA/ACC) Evidence-Based Guidelines enhanced a different care that delivered five united components: education/awareness, screening/risk assessment,

diagnostic testing/treatment, lifestyle modification/rehabilitation, and tracking/evaluation. The 6 month results showed were statistically significant improvements in fund of knowledge, risk awareness, and clinical outcomes. The participants attained or exceeded >90% of the Healthy People 2010 objectives (Villablanca et al., 2010).

Villablanca et al. (2010) further asserted that healthy behavior counseling was offered for physical activity, diet, and diabetes as CVD risk factors increased significantly (28.3%, 28.2%, and 12.5%, respectively). There was a statistical 4.1% increase in participants with systolic blood pressure (SBP) <140/90mm Hg, a 4.7% decrease in participants with total cholesterol (TC) >240mg/dL, a 4.5% decrease in participants with TC >200 mg/dL, a 5.9% decrease in participants with high-density lipoprotein cholesterol (HDL-C) <50 mg/dL, a 4.4% decrease in participants with HDL-C <40mg/dL, and an 8.8% increase in diabetics with low-density lipoprotein cholesterol (LDL-C) <100 mg/dL. The finding resulted that CVD heart care prevention program and AHA/ACC Evidence-Based Guidelines can result in success in improving knowledge and awareness of reducing CVD risk factors of Healthy People 2010 objectives in high-risk women. The program could have a dramatic and lasting impact on the health of women (Villablanca et al., 2010).

According to Campos-Outcalt (2011), AHA recommendations intervention for all women is to reduce CVD deaths. It is recommended to avoid smoking. Incorporate physical activity (≥ 150 minutes of moderate physical activity or ≥ 75 minutes of vigorous physical activity per week. Eat a healthy diet. A diet that is rich in fruits and vegetables, increase whole-grain and high-fiber foods, and fish. A reduction in high saturated fat, cholesterol, alcohol, sodium, and sugar and avoid trans-fatty acids. Maintain a healthy

weight (maintain a BMI of <25 kg/m²). Control blood pressure <120 /mm Hg through diet, exercise, weight control and take medication if necessary for BP $\geq 140/90$ mm Hg (or $\geq 130/80$ mm Hg for women with diabetes or chronic kidney disease). Preserve healthful lipid levels (LDL-C <100 mg/dL, HDL-C >50 mg/dL, triglycerides <150 mg/dL, and non-HDL-C [total cholesterol minus HDL] <130 mg/dL) through a lifestyle that is healthy (Campos-Outcalt, 2011).

According to Cheek, Jensen, and Smith (2004), cardiovascular disease is the leading cause of death in women in the United States. Many women think they are more likely to be diagnosed with breast cancer, than at risk of CVD. Heart disease related deaths occur more than causes of death from high blood pressure, stroke, and coronary heart disease, which includes myocardial infarction (MI), acute ischemic (coronary) heart disease, atherosclerosis, angina pectoris, and other forms of ischemic heart related disease. Treatment for CVD is to address risk factors that can be changed. The American Heart Association(AHA) teaches women how to protect themselves against heart disease. Dietary guidelines and exercising are recommended. Starting an exercise program is the most effective interventions for reducing complications associated with diabetes, hypertension, hyperlipidemia, and obesity (Cheek, Jensen & Smith, 2004).

Cheek, Jensen, and Smith (2004) note that AHA keeps doctors and female patients abreast of the latest knowledge on preventing heart disease. Risks factors that cannot be changed, for example, postmenopausal status or family history. But you can help a woman take control of modifiable risk factors, including reduce smoking, increase whole grain diet, and incorporate exercise (Cheek, Jensen & Smith, 2004).

The American Heart Association (2012) contends that research shows that less-active, less-fit women are at a greater risk of developing heart disease. African-American women are especially at risk with 43% knowledgeable that heart disease is their greatest health risk, compared to 44% of Hispanic women and 60% of white women. If women adhere to lifestyle choices – diet, exercise, and non-smoking – 83% of coronary events may be prevented. Raising awareness is key to reducing health disparities women face (American Heart Association, 2012).

If women would become more involved in planned physical activity this would drastically decrease coronary heart disease risks in women. According to the guidelines, all women, regardless of their risk classification, should adopt a “heart-healthy” diet, exercise for at least 30 minutes most days, achieve and maintain a body mass index of 18.5–24.9, and avoid smoking (Traynor, 2004).

An individual's lifestyle is a factor that contributes to the risk of increasing chronic diseases, such as cardiovascular disease (CVD). Healthy People 2020 (USDHHS, 2010) set goals to decrease the prevalence of preventable diseases by encouraging living a healthier lifestyle. Incorporating planned physical activity into an individual's lifestyle can be a key factor to intervention for women. Adulthood is an important window of opportunity since lifestyle patterns are often changing during this time period. Many women make significant transitions during the 18 years to 64 years old life stage. Helping women to understand the factors that lead to a healthy lifestyle, it is necessary to provide support that is specifically aimed at prevention of CVD in women. Women are more likely than men to make decisions for the family, especially in relation to health care. Increasing intervention to encourage healthy behaviors in women

may potentially have a positive effect on the entire family. A preventative program could reduce overweight and obesity in men and children (USDHHS, 2010).

Obesity has been related with health care spending. According to Ward-Smith (2010), the latest available figures from the U.S. Department of Health and Human Services, in 2000, showed that cost for overweight and obese Americans was approximately \$117 billion. The breakdown suggested that direct medical expenses totaled \$61 billion, and the balance entailed indirect costs, “such as lost work time, disability, and loss of income due to premature death” (Ward-Smith, 2010, p. 242). Being involved in physical activity will assist in reducing the obesity rates and decrease spending (Ward-Smith, 2010).

Physical inactivity caused significant health problems in the U.S. Obesity rate is high among women. Physical inactivity is a primary risk factor for obesity. “WHO estimated that in 2008, 1.5 billion adults aged 20 years and older were overweight and over 200 million men and 300 million women – approximately 10% of adults – were obese” (Ahima, 2011, p. 2076).

Obesity is a significant health disparity that affects women. Nearly two thirds of reproductive-aged women in the United States are currently overweight or obese. Obesity and overweight status put women at elevated risk for a myriad of adverse health outcomes, including cardiovascular disease, diabetes, kidney disease, and obesity-related cancers (Hillemeier et al., 2011).

According to Rhodes and Blanchard (2008), the purpose of the study measured sedentary behavior using physical activity (PA) intention and behavior when integrated within the theory of planned behavior framework (TPB). The study was conducted on

206 adults and 174 undergraduate students completed measures of the TPB pertaining to PA and four popular leisure-time behaviors (TV viewing, computer use, sedentary hobbies, and sedentary socializing) and an adapted Godin Leisure-Time Exercise Questionnaire. The study concluded sedentary control interventions in concert with PA promotion.

Social Support (Friends and Family)

Harley, Odoms-Young, Beard, Katz, and Heaney (2009) note that social support (SS) is important to some women due to being involved in Physical Activity (PA). Social support is broadly defined as the assistance afforded through social relationships and interactions, specifically by type or source. Social support, the resources exchanged through social relationships, is one psychosocial factor that has long been recognized to affect health and has been consistently associated with PA. Qualitative studies have found a relationship between PA and SS. African Americans particularly use SS to maintain PA involvement. It also seems that social support may be a source of personal competence and well-being. However, some studies that are predominantly White have found that some women report a greater degree of social support in relation to physical activity, whereas blacks experienced less support. Although some of these differences can be attributed to socioeconomic position, even African-American women in higher income groups are largely underactive and less active than their white counterparts (Harley et al., 2009).

According to Natterlund (2010), social support involves the actions done by others, to assist a particular person. Social support is seen today as a connection between

giver and recipient, and as part of the method enhances the individual's well-being. The subjective dimension of social support is most influenced on health.

There are four different types of social support: emotional, tangible, advice, and support. Emotional support is the provision of empathy, love and trust. It is applied to health behavior, provision of empathy for challenges to practicing the behavior. Instrumental support is the provision of tangible goods, services or aid. Informational support is the communication of information for problem-solving. Finally, appraisal support is the communication of information relevant to self-evaluation (Peterson et al., 2009).

Women have an influence on their child's PA behavior. According to Rosenkranz and Dzewaltowski (2011), previous studies have demonstrated that parents may influence the physical activity (PA) levels of children. The study wanted to determine if PA is associated with parenting behaviors were that is related with the physical activity, in relation to weight of children by controlling covariates. A sample of 193 mothers' after-school-program attendees finished questionnaires determining parental social support for PA, sedentary behavior, and moderate-to-vigorous physical activity. A linear regression analysis determined that maternal encouragement for child PA was positively related to both child PA and Body Mass Index (BMI) percentile. The maternal-child shared physical activity that negatively associated to the child's BMI percentile. The varying types of PA-related parenting behaviors may have a different relationship with child PA and relative weight (Rosenkranz & Dzewaltowski, 2011).

The degree to which social support influences physical activity may vary by age. Broader evidence is needed to determine if deteriorating psychological functioning

precedes declining physical activity levels generally associated with age. Exercise self-efficacy, social support from significant others, positive outcome expectations and engaging in physical activity self-regulation contribute to maintaining active lifestyles (Anderson-Bill, Winett, Wojcik, & Williams, 2011).

In a self-report survey by 3,610 women aged 18-46 years living in socioeconomically disadvantaged neighborhoods in Victoria, Australia. Findings showed that intervention strategies aimed at promoting physical activity and healthy eating could incorporate strategies aimed at modifying social norms relating to these behaviors. Therefore, interventions designed to promote influence health-related behaviors such as physical activity and eating behavior can lead to behavioral change. In conclusion, the cross-sectional study design, these data confirm theoretical accounts of the importance of social norms for physical activity and eating behaviors, and suggest that this is independent from social support (Ball et al., 2010).

Ishii, Shibata, and Oka (2010) conducted research on 1,928 Japanese adults aged 20-79 years. Their research focused on the environment influences long-term effects on population-based health behaviors. Personal variables, such as self-efficacy and social support, acted as mediators of the predictive relationship between the environment and physical activity. The report indicated that environmental factors had indirect effects on walking, moderate intensity activity excluding walking and vigorous-intensity activity among Japanese adults, especially through the effects on these factors of self-efficacy, social support, and pros and cons. The findings of the study implied that intervention strategies to promote more engagement in physical activity for population-based health promotion may be necessary (Ishii et al., 2010).

Kahn, Ramsey, Brownson, et al. (2002) used a method for systematic reviews were used to evaluate the effectiveness of various approaches to increasing physical activity: informational, behavioral and social, and environmental and policy approaches. Changes in physical activity behavior and aerobic capacity were used to assess effectiveness. Evidence was insufficient to assess a number of interventions: classroom-based health education focused on information provision, and family-based social support (because of inconsistent findings); mass media campaigns and college-based health education and physical education (because of an insufficient number of studies); and classroom-based health education focused on reducing television viewing and video game playing (because of insufficient evidence of an increase in physical activity) (Kahn et al., 2002).

Stubbs, Whybrow, and Lavin (2010) found evidence from studies of successful weight-loss maintainers shows that people can work this out for themselves if they can access the right tools, continuing care, guidance and social support to achieve sustainable lifestyle change. Research provided a direct comparison of the importance of weight loss and social support as a functional social network to improve physical activity in women. Studies investigated the association between social support and cardiovascular disease with the majority of these studies focusing on the risk of elevated blood pressure in the development of cardiovascular disease.

Peterson (2011) informed of the perceptions of African-American (AA) women regarding an active lifestyle, and evaluation the Heart and Soul Physical Activity Program (HSPAP) as a potential strategy to promote physical activity within the population. According to the American Heart Association (AHA) (2011), the study

reported only 25.3% of AA women reported regular leisure time physical activity, while 33.7% of Caucasian women reported regular leisure-time physical activity. AA women are less involved in physical activity due to lack of time.

Peterson (2011) advised that the HSPAP is a 12-week church-based intervention designed to promote physical activity in midlife women. AA women's religious convictions and "faith in God" have been reported as being strong and determined to have a strong influence. To change health behaviors in women, the HSPAP is a church-based intervention that incorporates faith, spiritual messages, and prayer to improve health behavior in women. Family or friends in the lives of these women could encourage and assist them in initiating and maintaining an active lifestyle, or they can inhibit it. Peterson notes that the researchers conducted focus groups to collect the data. The researchers found that the participants believed that physical activity improves health and prevents chronic diseases however, their primary responsibility is to family and jobs, leaving little time or energy for their personal health needs. They further believed that physical activity would increase if recommended by health professionals and encouraged by family, friends, and church members; and, that spiritual messages and prayer would strengthen their commitment to attain an active lifestyle.

Richardson (2010) conducted a study self-monitoring and goal setting that was both important behavioral strategies for increasing physical activity. Adults in the USA, are overweight or obese, about two-thirds of the population or 150 million people. The researcher paired an objective-monitoring device with an automated, individually tailored, Internet-mediated coaching intervention has the potential to create a low cost but effective physical activity intervention with broad reach. The key findings of the

study were: (1) a low cost, user-friendly and reasonably accurate objective-monitoring device that can upload data to a computer; (2) a tailoring algorithm to assist users with goal setting based on objectively assessed physical activity; (3) tailored motivational messages; (4) challenges and team competitions; (5) access to an online community for social support and social modeling; (6) dynamic and possibly user-generated web content to keep the user engaged; and (7) technical support to address evolving information technology issues on the Internet (Richardson, 2010).

Ravenek and Schneider (2009) found the importance of physical activity when considering recent evidence that people with mobility impairments who remain active enjoy better health and greater community participation than those who are less active. Benefits on social support suggest that support from family and friends helps to increase completing physical activities. As such, having someone who provided encouragement or assistance (such as an exercise partner), helped to facilitate participation.

The researchers reported that mortality and morbidity are played by gender specific lifestyles (Ravenek & Schneider, 2009). They investigated gender-specificity of health behaviors change process and factors influencing whether changes in self-efficacy beliefs and planning, as well as the level of social support predict change in exercise. The population consisted of men and women, aged 50-65 years, who were an increased risk for type 2 diabetes. The methods used for the study were measured by psychosocial factors with questionnaires and exercise with 7-day physical activity diaries at baseline and at 3 months. The study concluded that there were no gender differences in self-efficacy and planning. However, men reported receiving more social support than women. Also, at 3 months, women reported having formed more action plans for

changing their exercise routines than men. Also women, increased self-efficacy and planning predicted increase in exercise. In men, changes in planning played a less significant role. Women receive less social support (Hankonen et al., 2010).

The approach to social support as a physical health benefits strategy increases an individual's likelihood to be involved in physical activity. Social support refers to the active participation of significant others in an individual's physical activity efforts. Scientist argues that social support facilitates positive benefits by assisting an individual to change their physical health. The improvements of participating in physical activates changes an individual's situation, that improves his or her emotional, social or mental benefits. Social relationships are essential for emotional and physical health and well-being (Hawkley & Cacioppo, 2003).

Social support is beneficial, in stressful situations, that allows others (family and/or friends, can be relied on for assistance, empathic understanding, guidance, and material aid. The most frequently-examined and well-established social contextual correlate of physical activity and health eating behaviors is social support, including emotional, instrumental, and informational support. Theory of Planned Behavior is an important determinant of healthy behaviors (Ball et al., 2010).

Research shows that friends and/or family are among the primary sources of social support for humans. The family is the main source of support when individuals find their social environment more important than their work. The need for affiliation and engagement in rewarding social relationships is intrinsic to human beings and these affiliations have hormonal and neurophysiological substrates (Cacioppo et al., 2000, 2002).

Social support from friends and family has been found to increase the likelihood of engaging in physical activity and to continue with the behavior. Studies have shown that friends and family support has been the most effective in reducing stress.

Meaningful activities are central in human experience; they allow people to fulfill their needs for survival, and they form a part of everyday life (Natterlund, 2010).

Friends and family support tend to be more powerful than individuals being alone while engaging in physical activity. Investigations of the drop-off of PA that typically occurs during adolescence have identified psychological, social, and environmental factors as influential. In conclusion, PA-promotion interventions should aim to enhance social and environmental resources (Graham, Schneider, & Dickerson, 2011).

There are three types of social support: emotional which is comprised of feelings of comfort, respect, love, caring, and concern; cognitive which is comprised of information, knowledge, and advice; and material which is comprised of products or services to assist in managing specific problems. Social support is viewed today as a relationship between giver and recipient, and as part of a process that enhances the individual's well-being (Natterlund, 2010).

Understanding how planning relates to social support is therefore important for furthering understanding of why social support for physical activity is a key determinant of regular physical activity in some groups. Most relationships provide specialized forms of emotional support. Social support directly contributes to positive physical and mental health and is an extremely important mediator of the effects of stress. Understanding how planning relates to social support is therefore important for furthering our

understanding of why social support for physical activity is a key determinant of regular physical activity in some groups (Molloy, Dixon, Hamer, & Sniehotta, 2010).

According to Molloy et al. (2010), the study examined whether planning processes mediate the relationship between social support and regular physical activity. The study found that enhanced coping planning may partly explain the social support–physical activity link in women. The findings did not address the ethnicity of the individuals; however, the majority of the respondents were female. This study confirmed previous findings showing that the relationship between social support for physical activity and physical activity can be partly explained by control.

Social support has also been found to have a positive relationship to physical activity, which in increases optimism. Research has indicated that women face actual and perceived barriers to physical activity. Understanding the barriers to physical activity is important for health promotion efforts aimed at women who engage in low levels of physical activity. Low levels of physical activity in women may be attributed to barriers such as lack of social support (Molloy et al., 2010).

According to Molloy et al. (2010), the effectiveness of social support for women depended primarily on the quality of the friendship. Women friends were rated more supportive than men. Women who interacted with a female friend had the likely hood to change her physical activity behaviors. Women receiving emotional support reported receiving higher levels of emotional support than no support. Social support is an important component and may influence a women being involved in physical activity. The relationship of social support and physical activity find that individuals with lower levels of social support for physical activity were more likely to be sedentary. Women

indicated that high levels of social support were significantly less likely to be involved in sedentary behavior than those with low support. Women high in leisure time physical activity received more social support from friends to exercise.

Zoellner, Connell, Madson, et al. (2011) conducted a community-based participatory research (CBPR). The study used social support, and motivational interviewing frameworks to test the treatment effects of a two-phased CBPR walking intervention. Culturally-appropriate intervention was used, social support walking groups led by peer coaches, pedometer diary self-monitoring, monthly diet and physical activity education sessions, and individualized. Social support has been shown to be an indirect predictor of maintaining long-term physical activity. The study concluded, adherence to pedometer diary self-monitoring was better than education session participation.

Sedentary Behavior Choices

America is at war with the enemy, chronic diseases. The enemies:

(1) Coronary heart disease has been the number one cause of death in the United States in the 20th century for every year except in 1918; (2) Type 2 diabetes: More than 400,000 people with diabetes die each year; and (3) Obesity: The prevalence of obesity in 2000 as being 19.8% among US adults, that reflected a 61% increase since 1991. As health care costs are \$1.3 trillion/year in the US, a rough approximation is that physical inactivity accounts for approximately 15% of the US health care budget (PCPSF, 2002, pp. 3-4).

Sedentary is less than that of threshold for initial health benefits to occur. For noninstitutionalized people, chronic conditions of direct costs of health services and supplies totaled \$272.2 billion in 1987. Numerous research has been conducted to inform Americans that physical activity is necessary to improve the overall quality of health (PCPFS, 2002).

Regular physical activity influences positive health outcomes. The definition of sedentary behavior “refers to activities that do not increase energy expenditure substantially above the resting level and includes activities such as sleeping, sitting, lying down, and watching television, and other forms of screen-based entertainment” (Pate, O’Neill, & Lobelo, 2008, p. 174). Activities included as sedentary behavior is “slow walking, sitting and writing, cooking food, and washing dishes” (Pate, O’Neill, & Lobelo, 2008, p. 174).

The western society was developed around sitting. Individuals sit at work, we sit at school, sit at home, and sit in our cars as we commute back and forth. These U.S. children and adults spent approximately 55 percent of their waking hours, or 7.7 hours/day, in behaviors that result in only very low levels of energy expenditure. Older adolescents (ages 16–19 years) and older adults (ages 60–85 years) spent nearly 60 percent of their time, or more than 8 hours/day, in sedentary behaviors. Researchers have proven that physical activity is important for our health (Matthews, Chen, Freedson, et al., 2008).

Physical activity should be engaged in regardless of your age, gender or body weight, living an active lifestyle can improve an individual’s quality of life and dramatically reduce your risk of death and disease. Jakici, Marcus, Gallagher,

Napolitano, and Lang (2003) advised that the Centers for Disease Control and Prevention and the American College of Sports Medicine recommend a minimum of 30 minutes of moderate-intensity activity on most days of the week to improve health (150 min/wk), whereas the Institute of Medicine recommends a minimum of 60 min/day of exercise on most days of the week to control body weight.

Physical activity and eating behavior significantly contribute to weight loss. Physical activity is an important behavioral intervention to decreasing overweight and obesity in adults. According to Jakici et al. (2003), the study revealed that the randomized trial conducted recruited 201 sedentary women. The results informed respondents completed 12 months of treatment (94%) 184 of 196. The women reported “less than 150 min/wk had a mean (SD) weight loss of 4.7% [6.0%]; inconsistent (other) pattern of physical activity, 7.0% [6.9%]; 150 min/wk or more, 9.5% [7.9%]; and 200 min/wk or more of exercise, 13.6% [7.8%]” (Jakici et al., 2003, p. 1323).

After 12 months, weight loss and improved cardiorespiratory fitness were achieved through exercise and diet. The study found that findings suggesting that long-term weight loss are improved as exercise participation increases appear to be consistent with the recommendation by the Institute of Medicine and confirms previously published results. The one intervention that has the most benefit is physical activity (Jakici et al., 2003).

Epidemiological research presented evidence that strongly suggests that prolonged sitting is a health risk factor. Researchers have made major advances in collecting and analyzing current research on sedentary behavior, in behavioral science to better understood if such behaviors are to change over time to improve health outcomes.

While many people seem to have good intentions for physical activity, studies indicate less than optimal correspondence between people's intentions and behavior.

Sedentary women need a change of physical activity behavior to decrease cardiovascular deaths. According to Arbour and Martin-Ginis (2009), an 11-week study on sedentary women's walking behavior used a randomized controlled trial. The study examined the effects of the implementation intentions intervention. Seventy-five women (Age 48.17) were assigned to a control group to self-monitor daily pedometer step count. The experimental group used walking plans every 6 weeks and self-monitored daily pedometer determined step count. Intervention did not have effects on the strength of the goal intention-behavior relationship. The results recommend implementation intentions are the effective strategy for initiating leisure-time walking within sedentary women (Arbour & Martin-Ginis, 2009).

In general, sedentary means that almost any time a person is sitting (e.g., working on a computer, watching TV, driving) or lying down, they are engaging in sedentary behavior. For example, the American Time Use Survey, informed the results of a population-based survey of adolescents and adults aged 15 years, indicated that respondents reported an average of 2.6 hours/day of television viewing and less than 0.5 hours/day of computer use at home (13), which represents only a modest proportion of the average 15.4-hour waking day in this sample (Matthews et al., 2008).

Change in technology have drastically influenced human lives and behaviors. With increasing use of machines, computers, and automation lessen the physical demands of humans being physical activate (Owen, Sparling, Healy, Dunstan, & Matthews, 2010). The innovations have provided strides through advances in medicine,

the risks of an inactive life style, has increased medical problems. The past 20 years, total screen time (ie, using computers, watching television, playing video games) has increased dramatically. In 2003, nearly 6 in 10 working adults used a computer on the job and more than 9 in 10 children used computers in school (kindergarten through grade 12) (Owen et al., 2010).

CDC (2010a) research shows that the average American adult spends more time watching television daily, and the majority of the population does not spend enough time in moderate to vigorous physical activities to maintain health. The National Health Interview Survey data from 1997 show that 4 in 10 U.S. adults reported they never engage in any exercises, sports, or physically active hobbies in their leisure time. Sedentary behavior has been identified as a risk factor for a variety of chronic health conditions.

Despite the vast amount of health communication and promotion efforts related to physical activity in recent years, there are unmistakable signs that people have not been persuaded, or are unable, to alter their sedentary lifestyles as only 27.4% of U.S. adults get regular physical activity. Women were 43.2% more likely than men 36.5% to be sedentary. The level of education is also associated with leisure time physical activity (CDC, 2010a).

The research informs that the use of the word “sedentary activity” is contradictory. Inactivity is a more appropriate term to use and it explains the behavior. “Inactivity can be defined as a state in which bodily movement is minimal. In terms of energy expenditure, inactivity represents a state or behavior for which energy expenditure approximates resting metabolic rate” (Dietz, 1996, p. 829). To determine the

validity and reliability of morbidity and mortality estimates of activity, efforts have been made to quantify activity. It has received less attention. However, the population is experiencing an increase in obesity and other diseases associated with being inactive. Spending extended periods of time in sedentary behavior may result in decreased overall energy expenditure, increased risk of overweight and obesity, and increased risk of chronic diseases (diabetes, cardiovascular disease, and some cancers) that are associated with both inactivity and obesity (Dietz, 1996).

A common assumption is that individuals who sit more are at an increased health risk simply because they are not getting the recommended physical activity (Sugiyama, Healy, Dunstan, Salmon, & Owen, 2008). However, sedentary behavior and physical activity do not appear to have a relation for some people. Epidemiologists have explored the effects of physical activity through various studies, it has been difficult to keep up with changes of computer usages and other technologies that increase sedentary behavior. Technological advances caused some of the sedentary behavior. Epidemiologic studies examined the effects of sedentary behaviors, such as television watching, and risk of diseases. Sedentary behaviors, particularly television viewing, have been shown to be detrimentally associated with several health outcomes in adults, including abnormal glucose metabolism, continuous blood glucose indices, and the metabolic syndrome (Sugiyama et al., 2008).

Recommendations on physical health have been published over the decade. Adults are spending 70% or more of their waking hours sitting. Clinical and basic research has focused on the benefits of incorporating regular bouts of exercise into modern life to adjust to some extent for the loss of the physically active life led by our

ancestors. The past 20 years screen time (i.e., computer, television, e-mail and video games) has increased. Adults used a computer on the job 6 out of 10 times and children used it 9 out of 10 children used computers in school (K -12th grade) (Owen et al., 2010).

Optimal physical activity in reference to health and longevity continues to be misunderstood. The research explored sedentary behavior of present-day lifestyle of individuals in Australia and the USA. Findings suggest that socioeconomic status, cultural norms, TV time, physical environment, health status, and co-morbidities are correlated with sedentary and weight-related behaviors (Melkevik, 2010).

Time spent watching television and time on the computer or playing video games are two sedentary behaviors that have been studied frequently. Excess sitting while watching television in particular seems to put individuals in situations where they choose to eat more than otherwise. These findings suggest that TV viewing time may be detrimental to health due, at least in part, to its effect of displacing physical activity. Women are involved in more sedentary behavior than men. Leisure-time research suggests that women spend more time in home-related chores outside of work hours than do men. Women reported more time watching TV, spending more time in other leisure-time sedentary behaviors and less time in leisure-time physical activity (Sugiyama et al., 2008).

Advances in technology have caused the increased sedentary behavior. Comparing males to females, males had a higher proportion of physical activity versus females. Scientists hypothesize that for those individuals that do not engage in any exercise 39% of population, the risk for these chronic diseases may be increased by

simply being more sedentary (i.e., sitting, watching TV, etc.) (Swartz, Squires, & Strath, 2011).

Television time is a high sedentary behavior. The increased television time among females is significantly higher when compared to males. In a survey conducted in 1997, an adult male spent approximately 29 hours per week watching TV, and adult female spent 34 hours per week (Hu et al., 2003).

There seems to be an increase in diseases associated with increased television time. Television (TV) viewing time is associated with abnormal glucose metabolism, the metabolic syndrome, and risk of type 2 diabetes; associations are stronger and more consistent in women. Television time could relate indirectly to overweight and obesity. The suggested behavioral mechanisms through which sedentary time is associated with chronic disease include the displacement of moderate to vigorous-intensity physical activity, the displacement of other types of activity, such as light-intensity activity, and dietary influences, such as increased snacking behavior (Sugiyama et al., 2008).

Women reported watching television is less likely to exercise and has a higher rate of eating unhealthy. Women who spent more time watching TV were more likely to smoke and drink alcohol and less likely to exercise. The correlation between TV watching and physical activity levels was minimal ($r=-0.03$). These women also had higher intake of total energy, total and saturated fats, red meat, processed meat, refined grain products, snacks, sweets/desserts, and lower intakes of fish, vegetables, fruits, and whole grains (Hu et al., 2003).

Due to modern technology, a reduction in endurance-type physical activity has drastically decreased. Feasible steps to break up prolonged sitting with short bouts of

light activity include walking down the hall to speak with coworkers instead of emailing, extending walking distance during trips to the break room or bathroom, and standing or pacing when on the phone. Individuals need to get out of their chairs at work and home to take breaks (Owen, et al., 2010).

The ways individuals communicate have changed. In terms of public health importance, surveys continue to show that nearly all individuals understand that there are health benefits associated with physical activity, yet approximately 1 in 5 U.S. adults report no physical activity at all. A poor understanding of low levels of physical activity remains (Church et al., 2007).

Owen et al. (2010) discussed a study which revealed that increased television time is closely associated with physical inactivity, which may contribute to increased weight status. Clinical and basic research has focused on the benefits of incorporating regular bouts of exercise into modern life to adjust to some extent for the loss of the physically active life led by our ancestors. Scientists studying the ill effects of this decrease in physical activity have revealed a complex, multifaceted relationship among physical work, energy expenditure, and health (Owen et al., 2010).

Sedentary behaviors is likely contributed to learned behavior. Watching television exposes individuals to food ads promoting unhealthy fare, which is likely to have a disproportionate influence on viewers. In recent decades, in parallel with increasing obesity, there has been a steady increase in the number of homes with multiple TV sets, videocassette recorders (VCRs), cable TV, and remote controls, as well as the number of hours spent watching TV (Hu et al., 2003).

In this study, the association between planned physical activity and sedentary behavior was researched to understand and increase physical activity in women. It seemed reasonable that sedentary activities take the place of physical activities, and therefore contribute to the development of overweight and obesity. Researchers informed that there is not much evidence that sedentary behavior displaces physical activity (Salmon et al., 2003).

Rhodes et al. (2008) study examined almost 206 adults and a sample of 174 undergraduate students found that from a theoretical standpoint, the findings suggest that participants may not consider leisure-time behaviors in a comparative nature, even within the construct of PBC, when responding to standard social cognitive PA measures. This study actually found that in terms of intervention, our results suggest that people may need to consider giving up some portion of TV time in order to accommodate PA. The researchers suggest that women who spend time engaging in other activities might be better at managing their time and, therefore, are more likely to make time to be physically active. It is suggested that women who spend time in sedentary behavior, may spend significant time in other activities.

Regular activity is one effective component that reduces sedentary activities instead of overtly trying to increase physical activity. Exercise is an important component of behavioral interventions targeting overweight and obese adults, short-term weight loss when combined with changes in dietary intake, and is the best predictors of long-term weight loss (Jakici et al., 2003).

Reduction of sedentary behaviors and increase in an active lifestyle is an effective treatment strategy. The researchers supported the theory that there is a relationship

between sedentary behaviors (e.g., television watching) and physical activity. Constant exposure to food advertising leads to increased food and calorie intake and unhealthy eating patterns (Hu et al., 2003).

Sedentary activities such as television watching have been associated with increased snacking and over consumption of unhealthy foods. Data provides a correlation between television watching and increase in diseases. Reported time spent watching television, as one component of being sedentary, is cross-sectionally correlated with obesity in children and adults, as well as being a risk factor for the development of obesity in children (Epstein et al., 2011).

Effective interventions reduce sedentary behavior. By reducing sedentary behaviors such as television watching will increase the amount of time available for physical activity. Home environment is related to the obesity-related behaviors of children. Individual and social environment influences from family and friends, environmental attributes of homes, neighborhoods, schools, and elsewhere are believed to promote physical inactivity and sedentary behaviors among youth (Rosenberg et al., 2010).

Numerous behavioral activities have been designed to increase physical activity in women. Some methods used to decrease sedentary behaviors include reinforcement of reducing sedentary behaviors and use of stimulus management techniques to increase physical activity. A randomized two-arm intervention design, investigated post natal women randomized to one of two conditions: (1) a standard exercise treatment (SE) and (2) a standard exercise treatment plus group-mediated cognitive behavioral intervention (GMCB). The study used ANCOVA of change scores for frequency, minutes, and

volume of physical activity revealed significant treatment effects over the intensive and home-based phases (p 's < 0.01). The conclusion showed that both exercise programs resulted in improvements to exercise participation, the GMCB intervention produced greater improvement in overall physical activity, barrier efficacy and proximal outcome expectations (Cramp & Brawley, 2006).

Arbour et al. (2009) tested the hypothesis that an 11-week randomized controlled trial examined the effects of an implementation intentions intervention on sedentary women's walking behavior. Additionally, according to the researchers, the seventy-five women (M age = 48.17) were randomly assigned to either a control group where they were required to self-monitor their daily pedometer-determined step count or to an experimental group where they were asked to form specific walking plans (i.e., implementation intentions) every 6 weeks and to self-monitor their daily pedometer-determined step count. Overall, the findings from the present study suggest implementation intentions to be a promising behavior change intervention for initiating walking within a sedentary, nonstudent-based population.

Data from the National Health and Nutrition Examination Survey (NHANES) show a close relationship between low levels of physical activity and weight gain in both men and women. It is difficult to lose weight. Proper diet, physical activity, and modifications of lifestyle is the most effective to reduce overweight and obesity. Common experience tells us that it is very easy to gain but difficult to lose weight (Ahima, 2011).

Salmon et al. (2003) tested the hypothesis that high enjoyment and preference for physical activity were more likely to report high levels of activity. Researchers used a

cross-sectional study to assess the relationships of barriers, enjoyment, and preferences with leisure-time physical activity and sedentary behavior. The finding reported Factorial three-way ANOVAs showed significant main effects for walking by age, $F(3,1271) = 4.7, p = .003$, and for moderate physical activity by sex (men > women), $F(1, 1273) = 9.8, p = .002$, and by age, $F(3, 1271) = 9.6, p < .01$. They reported similar relationships between the predictor variables and physical activity were found when the dependent measures were treated as continuous variables, with preference, enjoyment, and barriers explaining between 13% and 23% of the variance in physical activity and sedentary behavior (Salmon et al., 2003).

According to Matthews et al. (2008), sedentary behaviors are linked to adverse health outcomes, but the total amount of time spent in these behaviors in the United States has not been objectively quantified. The authors evaluated participants from the 2003 - 2004 National Health and Nutrition Examination Survey over 6 years old. Among 6,329 participants with at least one 10-hour day of monitor wear, the average monitor-wearing time was 13.9 hours/day (standard deviation, 1.9). The most sedentary groups in the United States were older adolescents and adults aged 60 years, and they spent about 60% of their waking time in sedentary pursuits. Females were more sedentary than males before age 30 years, but this pattern was reversed after age 60 years. Mexican-American adults were significantly less sedentary than other U.S. adults, and white and black females were similarly sedentary after age 12 years (Matthews et al., 2008).

According to Swartz et al. (2011), studied three different periods of physical activity within a 30-minute sedentary period and examined potential benefits of

interrupting sedentary behavior with physical activity for weight control. Total energy expenditure of three different durations of physical activity within a 30-minute sedentary period and to examine the potential benefits of interrupting sedentary behavior with physical activity for weight control. Methods: Participants completed four consecutive 30-minute bouts of sedentary behavior (reading, working on the computer, or doing other desk activities) with and without interruptions of walking at a self-selected pace. Twenty males and females (18-39 years) completed this study. The study concluded, technological advances, social influences and environmental attributes have impacted the way we live at home, work and during our leisure time, resulting in substantial portions of the day spent in sedentary pursuits. Taking breaks from sedentary time is a potential outlet to prevent obesity and the rise of obesity in developed countries (Swartz et al., 2011).

Theoretical Framework

Three models were considered in order to select a model to define and measure the planned physical activity of the respondents. These models were: (1) Health Belief Model; (2) Transtheoretical Model (TTM) and (3) Theory of Reasoned Action/ Planned Behavior.

According to Bauman et al. (2005):

No current theory, or even a combination of theories, accounted for 15 variables that were associated with physical activity. This pattern presents a major challenge to behavioral theories. There are several interpretations

of this finding. One perspective is that new behavioral theories need to be developed that account for the existing data. Existing theories that do not incorporate so many of these documented correlates seem to be an inadequate basis for understanding the behavior and guiding intervention design. They do provide much of the current framework for understanding physical activity, but theories need to evolve to incorporate emerging empirical data (p. 10).

Health Belief Model

Suggs, McIntyre, and Cowdery (2010) contend that the Health Belief Model (HBM) has been one of the most widely used theoretical frameworks in health behavior. The HBM was developed to use to explain change and maintenance of health behavior and as a guiding framework for health behaviors interventions. The HBM was developed in the 1950's by a group of social psychologist in the U.S. Public Health Service to explain the wide spread failure of people not participating in prevention or detect programs. The model's four key components are conceptualized as perceived: 1) susceptibility, 2) severity, 3) effectiveness, and 4) cost. Much quantitative research has been conducted about the determinants of obesity and physical inactivity. The study conducted focus groups. A qualitative methodology to examine 1) barriers and/or facilitators to physical activity behavior and 2) communication practices and preferences for physical activity communication (Suggs, McIntyre, & Cowdery, 2010).

According to Gristwood (2011), physical activity engagement can help explain the likelihood of an individual engaging in physical activity, based on the perceived

threats brought about by inactivity and the individual's conclusion. "By applying the Health Belief Model to current research around older adults and physical activity engagement, we can better understand and identify health behaviors associated with the older adult population and develop strong intervention strategies for the future" (Gristwood, 2011, p. 60). Research shows that there is a strong relationship between the Health Belief Model and older adult physical activity engagement.

Transtheoretical Model (TTM)

James Prochaska and Carlo DiClemente believed that people went through stages of change before making a permanent behavior change. This simple descriptive account of human behavior suggest that if someone experience changes they will vacillate though stages before making a permanent change of behavior. One approach that has attempted to explain when and how people are likely to change their exercise behavior is the transtheoretical model of behavior change (TTM) (Marshall & Biddle, 2001).

James Prochaska and Carlo DiClemente are the theorist who developed the Transtheoretical Model (TTM) in the 1970's and early 1980's. The TTM model has been applied to a broad range of behaviors such as drug addictions, weight loss, and injury preventions. The concept of the model is that behavior change does not happen in a sequence, but it occurs in various stages. The SOC was initially developed by Prochaska and DiClemente to examine smoking cessation and has become one of the most widely used stage models in behavioral health. According to the model, behavior change is a progressive and continuous event and occurs in separate stages that are based on a past behavior and plans for future action. Research supports that individual's progress

through different stages in seeking to promote successful change. Within TTM the SOC model has six: precontemplation, contemplation, preparation, action, maintenance and termination (Paschal et al., 2009).

The stages are (1) precontemplation - intend to change behavior, (2) contemplation - considering a change, (3) preparation - making small changes, (4) action - engaged in behavior, and (5) maintenance - maintain behavior. Precontemplation is the first stage. People in this stage are often described as in denial due to claims that their behavior is not a problem and they do not feel a need to make a change. During this stage people experience blaming, resistance and minimizing the problem that is most commonly present. It is during this stage an individual has no intention changing within the next six months (Prochaska & DiClemente, 1984).

The second stage is contemplation. During this stage, individuals consider change, but also reject changing, because of a strong sense of ambivalence about changing. It is also during this stage that a person is aware that a problem exists and they seek realistic and achievable goals. It is during this stage an individual has intentions of changing within the next six months (Prochaska & DiClemente, 1984).

Preparation is the third stage. During this stage, the individual takes the necessary steps to promote change. It is during this stage an individual has intentions of changing within the next month (Prochaska & DiClemente, 1984).

The fourth stage is action. This is the stage that a person takes steps to change. The goal is to begin taking direct actions to produce change. It is during this stage an individual has changed behavior within the last next six months (Prochaska & DiClemente, 1984).

Maintenance is the stage when the goal is achieved. The goal of change has been achieved at this stage, but making the change does not ensure the goal will be maintained. Individuals must successfully avoid former behaviors and keep up new behaviors. It is during this stage an individual has changed behavior for six months and ongoing (Prochaska & DiClemente, 1984).

The transtheoretical model (TTM) has been applied to many health behaviors since its introduction in the early 1980s (Prochaska & DiClemente, 1984) and is one of the most widely used program planning models in health promotion. This theoretical framework recognizes that behavior change requires both time and motivation because individuals vary in their readiness to make a change (Spencer et al., 2006).

Theory of Reasoned Action (TRA)/Theory Planned Behavior (TPB)

The theory of planned behaviour (TPB) (Ajzen, 1985) is one of the most influential models for exploring the attitude–behaviour relationship (Cammock, Carragher, & Prentice, 2009). The Theory of Reasoned Action (TRA), developed by Ajzen and Fishbein (1980), addresses the impacts of cognitive components, such as attitudes, social norms, and intentions, on behaviors. According to this theory, individuals' attitudes toward a certain behavior and norms representing their perception of other people's view of such behavior will determine their behavioral intentions, which may further lead to performance of the behavior. Since behaviors that are not fully volitional are also influenced by the individual's perception of his or her ability to perform the behavior, Ajzen extended the TRA by adding the perceived behavioral control as an additional predictor of behavioral intentions (Ajzen, 1985).

A new theory named the Theory of Planned Behavior (TPB) was thus developed (Ajzen, 1985). It proposes that the intention to perform a particular behavior is the most immediate and important determinant of future behavior, but also recognizes that non-motivational sources, in the form of perceived behavioral control, may predict behavior directly if people have a realistic perception of their actual behavioral control. As a general rule, the more favorable the attitudes toward behavior and subjective norms, and the greater the perceived behavioral control, the stronger the person's intention to perform the behavior in question should be (Ajzen, 1991).

Finally, given a sufficient degree of actual control over the behavior, people are expected to carry out their intentions (Ajzen, 2002). The TPB adds perceived control over the behavior as a third determinant of intention. The five major theoretical constructs contained in the ETPB model (i.e. intentions, attitude, subjective norm, controllability and SE) were each assessed by means of 7-point bipolar scale items (Cammock, Carragher, & Prentice, 2009).

For this study, the researcher used Theory of Reasoned Action (TRA)/Theory Planned Behavior (TPB) due to being able to determine their behavioral intentions of individuals. The theory is a model that assumes the decision-making is a rational process. Also, the theory allows for self-identity as a significant predictor of both intentions and behavior, accounting for the TPB variables.

CHAPTER III

METHODOLOGY

The purpose of this quantitative study was to explore the views regarding a relationship between planned physical activity, social support and sedentary behavior choices among women as articulated by the US Surgeon General under the Affordable Care Act (ACA) (USDHHS, 2010). This chapter provides an explanation of the research method that was used in the study and the appropriateness of the quantitative method. The chapter provides a discussion of the study population, the sampling technique, data collection procedures and rationale. The chapter also addresses the issue of internal and external validity and discusses descriptive analysis as the appropriate procedure for data analysis. The chapter ends with a summary of the overall information presented in the chapter.

Research Design

An explanatory study was utilized in order to conduct the study, using a quantitative method to appropriately answer the research question. According to Weinbach and Grinnell (2004), a quantitative design is gathered in the form of large stack of completed questionnaires.

Quantitative method was selected over qualitative, due to the questionnaire being a self report instrument. The research thought respondents would provide honest

information if allowed to give perceptions and beliefs on paper than verbally for fear of being judged. According to Terwee (2010), the large number of available physical activity (PA) questionnaires makes it difficult to select the most appropriate questionnaire for a certain purpose.

This is the case with the current study. The data provides the quantitative results. The above information demonstrates how difficult measuring physical activity using a quantitative design can be. This method is appropriate because it adds to the body of literature for women on the relationship between physical activity and health behaviors, regarding increasing women's physical activity.

Description of the Site

Before participating in the study, informed consent was obtained from all respondents. The consent forms followed the guidelines established by the Division of Research and Sponsored Programs at Clark Atlanta University. No incentive for participation was offered. Confidentiality and security of survey information was maintained by clasped envelopes and upon completion locking them in a locked file cabinet at the School of Social Work at Clark Atlanta University. There was limited risk of harm to respondents in that all participant responses were gathered face-to-face. There was the potential for psychological harm should respondents' determine participation in the study was uncomfortable. To further limit risk of harm to respondents, were informed that the study was voluntary and they had the option of declining participation at any time.

Sample and Population

The study population consists of females and males 18-64 years old from the state of Georgia: urban and rural. Data for males was collected to conduct a comparison group of physical activity between females and males. The process of selecting the respondents for this study included asking respondents to participate in the study by completing the questionnaire regarding their perception of healthy lifestyle beliefs and behaviors. The questionnaires of the respondents who met the criteria were considered the study population which consists of approximately one hundred fifty nine (N=159) females and males.

Females and males from the state of Georgia (N=159) were solicited to select the respondents for the quantitative part of the study. This affords the researcher an opportunity to generalize to other females and males in Georgia only. A convenient sample of females and males (N=159) participate were collected. The researcher solicited females and males from the state of Georgia to participate in the research. The one hundred and fifty nine urban females and males to agree were considered the respondents for the quantitative research to share their beliefs and behaviors regarding the relationship between planned physical activity: social support and sedentary behavior choices. The assumption is that the group has a unique perspective, given the gender differences.

Instrumentation

The research study employed a survey questionnaire entitled Planned Physical Activity Index (PPAI): among females and males (18-64 years old). This survey

questionnaire consisted of two sections with a total of nineteen (19) questions. Section I solicited demographic information about the characteristics of the survey respondents. Section II of the survey solicited the planned physical activity of the respondents, social support (friends and family) of the respondents, and consisted of questions that assessed the respondent's sedentary behavior choices. Section I of the survey questionnaire consisted of seven questions (1 thru 7). Of the seven questions, selected questions were used as independent variables for the study. The questions in Section I were concerned with gender, marital status, children, age group, education, income and race. These questions provided information for the presentation of a demographic profile on the respondents of the research study.

Section II consisted of twelve questions (8 thru 19). Section II utilized the Planned Physical Activity Index (PPAI) which measured to what extent planned physical activity existed among the respondents about social support (friends and family) and (intrapersonal behavior) sedentary behavior choices. Items on the Planned Physical Activity Index (PPAI) were responded to on a four point Likert scale. The scale is as follows: 1 - Strongly Disagree; 2 - Disagree; 3 - Agree; 4 - Strongly Agree.

Statistical treatment of the data employed descriptive statistics, which included measures of central tendency, frequency distribution, and cross-tabulation. The test statistics for the study were phi and chi square. Frequency distribution was used to analyze each of the variables of the study in order to summarize the basic measurements. A frequency distribution of independent variables was used to develop a demographic profile and to gain insights about the respondents of the study.

Cross-tabulations were utilized to demonstrate the statistical relationship between independent variables and the dependent variable. Cross-tabulations were conducted between social support (friends and family) and intrapersonal behavior (sedentary behavior) among respondents who are “Called to Action” in the “Vision for a Healthy and Fit Nation” in the 2010 U.S. Surgeon General’s report under the Affordable Care Act of 2010.

Two test statistics were employed. The first test Phi (Φ) which is a symmetric measure of association that is used to demonstrate the strength of relationship between two or more variables (Bohrnstedt & Knoke, 1995). The following are the values associated with phi (Φ):

.00 to .24	“no relationships”
.25 to .49	“weak relationship”
.50 to .74	“moderate relationship”
.75 to 1.00	“strong relationship”

The second test statistics employed in the research study was chi square. Chi Square was used to test whether there was a significant statistical at the .05 level of probability among the variables in the study.

Treatment of Data

This research was conducted in the state of Georgia, located in the southeastern United States. The researcher used non-probability convenience sampling. This self report survey was administered in various locations to females and males (18-64 years

old) who gather at work sites, malls, and grocery stores. Also, another reason for not selecting one particular site was to gain accessibility of various age groups.

To collect the data for the current study, the quantitative data was collected using questionnaire. The researcher developed the questionnaire and used Statistical Package for the Social Sciences (SPSS), a software package that allows research data to be analyzed and provide results. Respondents were invited to complete the questionnaire. This is important because it allowed the researchers to conduct a statistical analysis to examine whether a relationship exist among two variables.

The data collection procedures were appropriate for the study because they allowed the researcher to collect data that was more comprehensive, providing both depth and breadth regarding females and males perceptions of the their beliefs and behaviors regarding the relationship between planned physical activity: social support and sedentary behavior choices. Researchers who previously studied the problem of physical activity: social support and sedentary behavior choices included quantitative methods. One such quantitative study used a two-group discriminate analysis employing the Mahalanobis D2 method design by Guinn (2008) who conducted an evaluation physically inactive and physically active Mexican American females. The researcher integrated lack of time, social influence, lack of energy, lack of motivation, fear of injury/safety, lack of skill, lack of resources, and health issues variable. Respondents were asked to rate, on a four-point Likert-type scale. Quantitative research can serve the purpose of answering the closed ended questions about the most effective perceptions of the their beliefs and behaviors regarding the relationship between planned physical activity: social support and sedentary behavior choices (Yegidis & Weinbach, 2006).

Limitations of the Study

There are two basic limitations of the study. The first limitation was the limited number of respondents that self-reported in the study. The second limitation was the location of the sites, urban and rural were not distinguished. Because the sites were located in Georgia it could be predicated that the vast majority of the respondents would be African-American females.

This explanatory study that used a quantitative design explained the relationship between planned physical activity, social support, and sedentary behavior choices among women a critical intervention strategy from the U.S. Surgeon General's report Vision for a Healthy and Fit Nation (2010) under the Affordable Care Act, 2010. Because of the sample size (N=159) and the region in which the study was conducted, the researcher can only generalize to the population from which it was drawn. The self-report questionnaire provided a limitation to the current study. The women may have been influenced to complete the questionnaires by providing socially acceptable answers, responding quickly and inaccurately, provided responses that indicate their perception of their behavior instead of their actual behavior, and they may have been influenced by the remarks or responses of their peers. The questionnaire used in this research has been validated and tested for reliability among the female populations, 18-64 years old. Consequently, the self-report instrument may not provide the most accurate measure of planned physical activity; it is, however, a feasible and cost effective method of assessment for the researcher.

As is the case with any cross-sectional analysis, causal relationships among associated variables in this research should not be assumed. In addition, this study

designs employed a convenience sample; which generally leads to the subject being bias. The people who volunteered for a study may not have been the typical general population from which they are drawn. The results of this research may not have been generalizable to all women 18- 64 years old in the U.S. or in Georgia.

Also, similarities between urban and rural women's physical activity levels in this research do not preclude that more refined analyses, taking into account specific attributes of the urban or rural environment, may have shown differences. Environmental aspects that may be associated with the urban or rural nature of the address as well as relevant to women's physical activity patterns, were not part of this study: green space, recreational programs and facilities, perceived and actual crime rates, proximity of destinations (parks), and presence of sidewalks. Such attributes may vary by a location's urban or rural designation, but cannot be expected to be identically represented among all urban or all rural areas.

CHAPTER IV

PRESENTATION OF FINDINGS

The purpose of this chapter was to present the findings of the study in order to describe and explain the regular physical activity among women 18-64 years old who are under the 2010 U.S. Surgeon General's report "Vision for a Healthy and Fit Nation" under the Affordable Care Act of 2010. This chapter presents the findings of the study. The findings are organized into two sections: demographic and research questions and hypotheses.

Demographic Data

This section provides a profile of the study respondents. Descriptive statistics were used to analyze the following: ethnicity, gender, marital status, children, age, education, income and ethnicity. A target population for the research was composed of adult women and men who are within the age range of 18 and over, who live in a large metropolitan area in Atlanta, Georgia. Women are the primary focus of the study. One hundred and fifty-eight respondents were selected utilizing convenience sampling from among respondents of the various selected sites.

Table 1
Descriptive Data for Survey Sample (N=158)

Variable	Frequency	Percent
Gender		
Male	50	31.6
Female	108	68.4
Marital Status		
Married	62	39.2
Never Married	69	43.7
Divorced	18	11.4
Separated	4	2.5
Widowed	5	3.2
Children		
Yes	94	59.9
No	63	40.1
Age Group		
18-20	9	5.7
21-30	46	29.3
31-40	50	31.8
41-50	27	17.2
51 & up	25	15.9

Table 1 (continued)

Variable	Frequency	Percent
Educational Level		
Less than high school	2	1.3
High school/GED	14	8.9
Some college	62	39.2
College graduate	80	50.6
Annual Income		
Under \$30,000	54	35.8
\$30,000 - 34,999	17	11.3
\$35,000 - 39,999	14	9.3
\$40,000 - 44,999	12	7.9
\$45,000 - 49,999	11	7.3
\$50,000 & up	43	28.5
Ethnicity		
Black	112	70.9
White	22	13.9
Hispanic	8	5.1
Asian	11	7.0
Other	5	3.2

As indicated in Table 1, the demographics of the respondents of the study. There are 158 respondents in the current study. The majority of the respondents (70.9%) identified their ethnicity as African American, while 13.9% specified white, 5.1% specified Latino/Hispanic, 7.0% specified Asian, and 3.2% indicated other. No other ethnicities were reported by the respondents. The gender composition was 31.6% male and 68.4% female. As for the marital status of the respondents, 39.2% selected Married, 43.7% selected Never Married, 11.4% selected Divorced, 2.5% selected Separated, and 3.2% selected Widowed. The children composition was 59.5% of respondents indicated Yes and 39.9% indicated No. The age composition for the respondents revealed that 5.7% chose 18-20, 29.1% chose 21-30, 31.6% chose 31-40, 17.1% chose 41-50, and 15.8% chose 51-up.

For the education composition, 1.3% the respondents expressed that they had Less than High School, while 8.9% specified High School-GED, 39.2% specified Some College, and 50.6% indicated College Graduate. For the Annual Income composition, 34.2% of the respondents expressed that they earned under \$30,000, 10.8% indicated \$30,000-34,999, 8.9% indicated \$35,000-39,999, 7.6% indicated \$40,000-44,999, 7.0% indicated \$45,000-49,000, and 27.2% indicated \$50,000-up. In order to participate in the study, all respondents had to be willing to voluntarily complete the survey and they had the option of declining participation at any time.

Research Questions and Hypotheses

The 12 specific planned physical activity (dependent variable) are related to the two-targeted (independent variables) research areas: Social Support (friends and family)

and Sedentary Behavior Choices. After presenting the 12 research questions, the three research areas are analyzed according to their combined averages for the degree of most importance. The first research area to be answered is Planned Physical Activity. To answer the questions, respondents had to rate, in Likert Scale format, the 4 specific planned physical activity questions as: 1) Strongly Disagree, 2) Disagree, 3) Agree, 4) Strongly Agree. The information is calculated according to the measures of central tendency and is presented in this chapter. There were three research questions and three null hypotheses in the section. This section provides an analysis of the research question and a testing of the null hypotheses.

Planned Physical Activity

Planned physical activity is a principal concept in health promotion.

Unfortunately, 43% of women report no participation in leisure-time physical activity (Fahrenwald & Walker, 2003). For this report, planned physical activity was defined as respondents considered to be engaging in regular physical activity were those who met the Healthy People 2010 objective of at least 30 minutes a day of moderate intensity activity on 5 or more days a week, or at least 20 minutes a day of vigorous-intensity activity on 3 or more days a week, or both (CDC, 2007b). According to the Centers for Disease Control and Prevention, more than 25% of US adults do not engage in any leisure-time physical activity, and 60% do not achieve the Surgeon General's physical activity recommendations (CDC, 2007b).

Planned physical activity was defined as respondents considered to be engaging in regular physical activity were those who met the Healthy People 2010 objective of at

least 30 minutes a day of moderate intensity activity on 5 or more days a week, or at least 20 minutes a day of vigorous-intensity activity on 3 or more days a week, or both (CDC, 2007b). According to the Healthy People 2010 objective PA-2.1, regular physical activity can best be explained utilizing the following four sub-facets: Regular: I exercise regularly; Help: Exercising really helps me, Plan: I plan for regular physical, and Feel: I feel a lot better when I. Table 2 is a frequency distribution of the sub-facets of regular physical activity among 158 respondents. Table 3 indicates whether or not the respondents disagreed or agreed with exercise regularly, exercising really helps, plan for regular physical and feel a lot better.

Planned Physical Activity Research Question and Hypothesis

RQ1: Is there planned physical activity among women as articulated by the U.S.

Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010?

HO1: There is no evidence of planned physical activity among women as articulated by the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010.

Table 2

Planned Physical Activity sub-facets for Survey Sample (N=158)

	Disagree		Agree	
	#	%	#	%
Regular: I exercise regularly	67	42.7	90	57.3
Help: Exercising really helps me	8	5.1	149	94.9
Plan: I plan for regular physical	67	42.7	90	57.3
Feel: I feel a lot better when I	12	7.6	145	92.4

As shown in Table 2, respondents stated that they agreed (57.3%) with exercise regularly. Also, respondents stated that they agreed (94.9%) with exercising really helps, agreed (57.3%) with plan for regular physical and they agreed (92.4%) with feel a lot better when they exercise.

Table 3

Planned Physical Activity for Survey Sample (N=158)

	Frequency	Percent
Disagree	55	35.0
Agree	102	65.0
Total	157	100.0
Mean 2.68	Std. Dev. .9	

As shown in Table 3, respondents stated that they agreed with regular physical activity. Of the 158 respondents, 65% stated that they agreed, while 35% stated that they disagreed with regular physical activity.

Social Support (Friends and Family)

Social Support was defined as the assistance afforded through social relationships and interactions, specifically by type or source. According to Harley et al. (2009), social support (SS), the resources exchanged through social relationships, is one psychosocial factor that has long been recognized to affect health and has been consistently associated with PA (Harley et al., 2009). It can best be explained utilizing the following four sub-facets: Encour: My friends encourage; Exerci: My friends exercise, and Suppor: My friends support and Belon: I belong to a health (Harley et al., 2009). Table 4 is a frequency distribution of the sub-facets of social support among 158 respondents. Table 4 indicates whether the respondents utilized social support.

Table 4

Social Support sub-facets for Survey Sample (N=158)

	Disagree		Agree	
	#	%	#	%
Encour: My friends encourage	49	31.0	109	69.0
Exerci: My friends exercise	99	62.7	59	37.3
Suppor: My friends support	46	29.1	112	70.9
Belon: I belong to a health	107	68.2	50	31.8

As shown in Table 4, 69% of the respondents stated that they agreed versus 31% who disagreed with friends encouraging, and 62.7% disagreed with the friends exercising with them. The majority of the respondents (70.9%) stated that they agreed with friends support, and 68.2% disagreed with belonging to a health club.

Table 5

Social Support for Survey Sample (N=158)

	Frequency	Percent
Disagree	116	73.9
Agree	41	26.1
Total	157	100.0
Mean 2.68	Std. Dev. 000	

As shown in Table 5, the respondents stated that they disagreed with social support. Of the 158 respondents, 73.9% stated that they disagreed. However, 26.1% stated that they agreed with social support.

Sedentary Behavior

Sedentary Behavior was defined as displacing available time to be active (Epstein et al., 2004). According to Epstein et al. (2004), sedentary behavior can best be explained by utilizing the following four sub-facets: Donot: I do not like; Rather: Rather watch; Relax: relaxing is better and Really: I really do not (Epstein et al., 2004).

Table 6 is a frequency distribution of the sub-facets of the 158 respondents. Table 6 indicates whether or not the respondents disagreed or agreed with the sedentary behavior.

Table 6

Sedentary Behavior Choices sub-facets for Survey Sample (N=158)

	Disagree		Agree	
	#	%	#	%
Donot: I do not like to exercise	126	79.7	32	20.3
Rather: I rather watch TV than	104	65.8	54	34.2
Relax: Relaxing is better than	108	68.4	50	31.6
Really: I really don't need to	147	93.0	11	7.0

As shown in Table 6, the respondents stated that they agreed with sedentary behavior. The majority of the respondents (79.7%) disagreed with do not like exercise, and 65.8% disagreed with rather watch television. The respondents indicated that they disagreed (68.4%) with relaxing is better than exercising and disagreed (93%) not exercising regularly.

Table 7

Sedentary Behavior Choices for Survey Sample (N=158)

	Frequency	Percent
Disagree	147	93.0
Agree	11	7.0
Total	158	100.0
Mean 2.68	Std. Dev. 327	

As shown in Table 7, the respondents stated that they disagreed with sedentary behavior. Of the 158 respondents, 93% stated that they disagreed while only 7% indicated that they agreed with sedentary behavior choices.

The two-targeted independent variables were in line with research. However, as the findings from the quantitative data indicated, there are certain aspects of the two independent variables that make the research significant. The elements should be highlighted and focused on by other public health social worker practitioners. One thing shared throughout is that exercise is important to increase planned physical activity. However, the focus must be on all genders to improve the activity levels in Americans.

Table 9

Social Support by Gender Cross-tabulation for Survey Sample (N=158)

	Gender					
	Male		Female		Total	
	#	%	#	%	#	%
Social Support						
Disagree	34	21.7	82	52.2	116	73.9
Agree	16	10.2	25	15.9	41	26.1
Total	50	31.8	107	68.2	157	100.0
$\Phi=.092$		df=1	p=.251			

As indicated in Table 9, 21.7% of the male respondents stated that they disagreed with social support by gender and did not experience social support. A majority (52.2%) female respondents stated that they disagreed with social support by gender and did not experience social support. However, when gender was cross-tabulated with social support variable, 10.2% of the male respondents stated that although they agreed with social support, they did not experience social support. Also, when gender was cross-tabulated with social support variable, 15.9% of the female respondents indicated that although they agreed with social support, they did not experience social support.

As shown in table 9, the statistical measurement phi (Φ) was employed to test for the strength of association between planned physical activity and social support. As indicated, there as a weak relationship ($\Phi=.092$) between the two variables. When the

chi-square statistical test for significance was applied, the null hypothesis was rejected ($p=.251$) indicating that there was no statistically significant relationship between the two variables, at the .05 level of probability.

Sedentary Behavior Choices Research Question and Hypothesis

- RQ3: Is there a relationship between sedentary behavior choices and planned physical activity among women as articulated by the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010?
- HO3: There is no statistically significant relationship between sedentary behavior choices and planned physical activity among women as articulated by the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010.

Table 10

Sedentary Behavior Choices by Physical Activity Cross-tabulation for Survey Sample (N=158)

Sedentary Behavior Choices	Physical Activity					
	Disagree		Agree		Total	
	#	%	#	%	#	%
Disagree	47	29.9	99	63.1	146	93.0
Agree	8	5.1	3	1.9	11	7.0
Total	55	35.0	102	65.0	157	100.0
$\Phi=-.217$		df=1	p=.007			

Table 10, is a cross-tabulation of planned physical activity by sedentary behavior choices. It shows the association of planned physical activity by respondents and indicated whether or not there was a statistically significant relationship between the two variables.

As indicated in Table 10, 93.0% of the respondents stated that they disagreed with planned physical activity and did not experience sedentary behavior choices. A minority (7.0%) stated that they agreed with sedentary behavior choices. However, when planned physical activity was cross-tabulated with sedentary behavior choices variable, (5.1%) of the respondents indicated that although they agreed with planned physical activity, they did not experience sedentary behavior choices.

As shown in table 10, the statistical measurement phi (Φ) was employed to test for the strength of association between planned physical activity and sedentary behavior choices. As indicated, there was a weak relationship ($\Phi=-.217$) between the two variables. When the chi-square statistical test for significance was applied, the null hypothesis was not rejected ($p=.007$) indicating that there was a statistically significant relationship between the two variables at the .05 level of probability.

Table 11

Sedentary Behavior Choices by Gender Cross-tabulation for Survey Sample (N=158)

Sedentary Behavior Choices	Gender					
	Male		Female		Total	
	#	%	#	%	#	%
Disagree	48	30.4	99	62.7	147	93.0
Agree	2	1.3	9	5.7	11	7.0
Total	50	31.6	108	68.4	158	100.0
$\Phi=.079$		df=1		p=.320		

As indicated in Table 11, 30.4% of the male respondents stated that they disagreed with sedentary behavior choices by gender and did not experience sedentary behavior choices. A majority (62.7%) female respondents stated that they agreed with sedentary behavior choices. However, when sedentary behavior choices was

cross-tabulated with gender, 1.3% of the male respondents stated that although they agreed with sedentary behavior choices, they did not experience sedentary behavior choices. Also, when sedentary behavior choices was cross-tabulated with gender, 5.7% of the female respondents stated that although they agreed with sedentary behavior choices, they did not experience sedentary behavior choices.

As shown in table 11, the statistical measurement $\phi(\Phi)$ was employed to test for the strength of association between sedentary behavior choices by gender. As indicated, there was a weak relationship ($\Phi=.079$) between the two variables. When the chi-square statistical test for significance was applied, the null hypothesis was not rejected ($p=.320$) indicating that there was no statistically significant relationship between the two variables at the .05 level of probability.

In sum, women respondents responded to the questionnaire by indicating that they disagreed with many of the sub-facets which composed the definition of planned physical activity. The majority of the women were not involved in planned physical activity as articulated by the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010. The two-targeted independent variables were in line with research. However, as the findings from the quantitative data indicated, there are certain aspects of the two independent variables that makes the research significant. The elements should be highlighted and focused on by other social worker practitioners working in the public health field. One thing shared throughout is that exercise is important to increase planned physical activity. However, the focus must be on all genders to improve the lives of Americans.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this explanatory study is to explain the relationship between planned physical activity, social support, and sedentary behavior choices among women, a critical intervention strategy from the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010. Chapter one addressed the problem, purpose, significance, research questions, hypotheses, and definitions. Chapter two discussed a historical overview, the theoretical framework, planned physical activity, social support, and sedentary behavior choices. The obesity and lack of physical activity in Georgia was also discussed. Chapter three addressed the respondents, instrumentation, procedures, and data analysis conducted for the study. Chapter four discussed the results of the quantitative methods, description of the respondents, and results from the study. In chapter five, results from the hypotheses testing will be reported, discussion of the results, implications for policy and social work practice, and summary of the study will ensue.

To answer the three questions, data was collected by non-probability convenience sampling to determine if women engage in planned physical activity, social support (friends and family), and sedentary behavior choices. Question 1: "Is there planned physical activity among women as articulated by the U.S. Surgeon General's report,

Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010?" was answered by obtaining data from survey respondents regarding the degree of planned physical activity of four planned physical activity questions that were related to planning physical activity. To answer this question, respondents were asked to rank their choices. The mean averages of the responses were rated accordingly, allowing the first question to be answered.

Question 2 asked, "Is there a relationship between social support (friends and family) and planned physical activity among women as articulated by the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010?" To answer this question, respondents were asked to rank the aforementioned four social support questions that were related to physical activity to determine which choice was the most important to them. Next, the four choices were collapsed into physical activity and were analyzed according to the measures of central tendency. Finally, the mean averages of the responses were rated.

Question 3 asked, "Is there a relationship between sedentary behavior choices and planned physical activity among women as articulated by the U.S. Surgeon General's report, Vision for a Healthy and Fit Nation (2010), under the Affordable Care Act, 2010?" To answer this question, respondents were asked to rank the aforementioned four sedentary behavior choices questions that were related to sedentary behavior choices to determine which choice was the most important to them related to physical activity. Next, the four choices were collapsed into physical activity and were analyzed according to the measures of central tendency. Finally, the mean averages of the responses were rated.

The study was explored from the perspectives of women in Georgia about their engagement in planned physical activity. The study used an explanatory research design to answer the following questions concerning two behaviors: social support (friends and family) and sedentary behavior choices:

RQ1: Is there planned physical activity among women as articulated by the U.S. Surgeon General's report, *Vision for a Healthy and Fit Nation* (2010), under the Affordable Care Act, 2010?

In order to determine if there was planned physical activity among women who were respondents in the study, two facets of planned physical activity (social support and sedentary behavior choices) were analyzed. Planned physical activity was computed based on a calculation of these two facets. In order to determine the true value or arithmetic mean of the variable, the values (1 thru 4) from the measurement scale of the two facets for planned physical activity were calculated by dividing the sum total of the set of figures by the number of figures.

Of the 158 women surveyed, respondents indicated that they agreed (94.9%) with exercising really helps, agreed (57.3%) with plan for regular physical and they agreed (92.4%) with feel a lot better when they exercise.

RQ2: Is there a relationship between social support (friends and family) and planned physical activity among women as articulated by the U.S. Surgeon General's report, *Vision for a Healthy and Fit Nation* (2010), under the Affordable Care Act, 2010?

Thirty-five percent (35.3%) of the women indicated that they disagreed with social support (friends and family) and did not engage in planned physical activity. A

majority (64.7%) indicated that they agreed with being involved in planned physical activity. However, when the social support (friends and family) variable was cross-tabulated with planned physical activity, 26.3% of the respondents indicated that, although they agreed with social support (friends and family), they did not engage in planned physical activity (See Table 8).

The statistical measurement phi (Φ) was employed to test for the strength of association between the social support (friends and family) and planned physical activity. As indicated, there was a weak relationship ($\Phi = .288$) between the two variables. When the chi-square statistical test for significance was applied, the null hypothesis was rejected ($p = .008$), indicating that there was a statistically significant relationship between the two variables at the .05 level of probability (See Table 8).

RQ3: Is there a relationship between sedentary behavior choices and planned physical activity among women as articulated by the U.S. Surgeon General's report, *Vision for a Healthy and Fit Nation* (2010), under the Affordable Care Act, 2010?

Ninety-three percent (93.3%) of the women indicated that they disagreed with sedentary behavior and did not engage in planned physical activity. A slight minority (1.9%) indicated that they agreed with planned physical activity. However, when the sedentary behavior variable was cross-tabulated with the planned physical activity variable, 65% of the respondents indicated that, although they agreed with planned physical activity, they did not engage in planned physical activity (See Table 10).

The statistical measurement phi (Φ) was employed to test for the strength of association between sedentary behavior and planned physical activity. As indicated,

there was a weak relationship ($\Phi = .217$) between the two variables. When the chi-square statistical test for significance was applied, the null hypothesis was rejected ($p = .007$), indicating that there was a statistically significant relationship between the two variables at the .05 level of probability (See Table 10).

In sum, the 158 women recipients surveyed responded by indicating that they agreed with many of the sub-facets and facets of planned physical activity. However, when the sub-facets were combined to compute an overall score for planned physical activity, only thirty percent (30%) indicated that they disagreed with planned physical activity. A majority (70%) indicated that they agreed with planned physical activity as articulated by the U.S. Surgeon General under the Patient Protection and Affordable Care Act, 2010 and did engage in planned physical activity.

Recommendations

The findings of this study revealed whether or not there is planned physical activity among women, followed by a relationship between social support (friends and family) and planned physical activity, then sedentary behavior choices and planned physical activity. There is currently little research available to guide the development of planned physical activity; however, this should not lead to lack of action. Developing a planned agenda around physical activity for healthy living is a difficult and daunting task. However, with planning and social support to change sedentary behavior choices, it can be accomplished. Of the two types of choices, either ranked the highest as encouraging women to engage in planned physical activity. However, “friends exercise with me” ranked the highest in social support. The lowest selection, “I rather watch TV

than exercise” ranked the lowest in sedentary behavior choices. The three-targeted variables are discussed in the following section.

Planned Physical Activity

There is an obesity and diabetes epidemic due to lack of physical activity. According to Barnes (2011), “excess weight affects two thirds of the U.S. adult population and increases risk for cardiovascular disease and diabetes. All patients should be screened for obesity and most should be screened for pre-diabetes and diabetes” (p. 144). Barnes contends that “the best treatment for diabetes is prevention. Prevention of diabetes can be accomplished through a 7% weight loss through intensive lifestyle interventions that include caloric reduction and approximately 30 minutes of daily moderate physical activity” (p. 144) As of today, physical activity has been well documented to lead to longevity.

Healthy People 2020 has made numerous recommendations to combat the growing problem of inactivity. It has been provided set guidelines on physical activity to increase physical activity. Healthy People 2010 objective of at least 30 minutes a day of moderate intensity activity on 5 or more days a week, or at least 20 minutes a day of vigorous-intensity activity on 3 or more days a week, or both (CDC, 2007). Individuals must be motivated to be physically active. Planned physical activity occurs when an individual’s behavioral intent is to be involved in regular physical activity on a regular basis and according to the recommended CDC guidelines.

Luszczynska, Schwarzer, and Mazurkiewicz (2010) reported on two previous studies on action planning intervention and physical activity levels. The research

revealed that “people imagine scenarios that hinder them in performing their intended behavior, and they develop one or more plans to cope with such a challenging situation” (p. 152). As an example, the authors provided the following: “‘If I plan to run on Sunday, but the weather does not permit it, I will go swimming instead’ or ‘If there is something exciting on TV tonight that I do not want to miss, I will reschedule my workout to the afternoon’” (Luszczynska, Schwarzer, & Mazurkiewicz, 2010, p. 152). Luszczynska, Schwarzer, and Mazurkiewicz explained that “coping planning might be a more effective self-regulatory strategy than action planning when real barriers are likely to impede the translation of intention into action. Coping planning involves both imagining possible barriers and generating coping strategies” (p. 152).

The first study had 58 patients with diabetes who received face-to-face action planning intervention to improve their physical activity levels. The second study’s aim was to target the roles of planning and self-efficacy for the maintenance of regular running and relapse prevention in 187 active individuals over a 2-year period. Results of the studies revealed that there must be consistent planning with physical activity. The research concluded that moderating effect of self-efficacy in relation to the planning-behavior relationship is key. If an individual has a high self-efficacy, they benefitted from planning interventions. If the individual lacked self-efficacy, planning may not be effective in promoting physical activity. This is important to note, to explain the low levels of physical activity in the United States (Luszczynska, Schwarzer, & Mazurkiewicz, 2010).

Social Support (Friends and Family)

Social support does not increase planned physical activity. There is a statistically significant relationship among social support (friends and family) and planned physical activity, according to this study. The findings are not consistent with a Molloy et al. (2010) study that indicated:

The indirect effect of social support for physical activity at Time 2 through PBC was statistically significant for women. Social support for physical activity was associated with action and coping planning, while only coping planning was associated with physical activity at Time 2 in women. The indirect effect of social support for physical activity through coping planning was statistically significant for coping planning only; however, the size of the indirect effect was almost identical for action planning. The total effect of social support for physical activity at Time 1 on physical activity at Time 2 was statistically significant for women (Molloy et al., 2010, pp. 864-865).

The study concluded that social support is more powerful for women than men. Individual behavior change must take place to adopt planned physical activity. Action planning can cause increase in the physical activity levels.

Peterson (2011) conducted a study to determine the perceptions of African-American (AA) women have regarding their active lifestyle and to evaluate the Heart and Soul Physical Activity Program (HSPAP) as a strategy to promote physical activity in the population. Peterson noted that:

The AA women in this group believed that leisure time physical activity is not the social or cultural norm for adult female behavior in their communities. Women shared that the primary role expectations for AA women are to care for their family, friends and community, and these women perceive that their personal health needs are secondary and that there was not enough time or energy to remain active. Women shared that there are very few physically active and fit AA females in their communities to role model a healthy, active lifestyle (p. 66).

Due to the majority of the respondents in this study being black females, the finding does have a relationship to low levels of physical activity among the population. This is important because black females are the majority of the population that are inactive, overweight and obese in Georgia. According to Bryan (2007), findings from the Georgia Behavioral Risk Factor Surveillance System (2007) data summary informs that more blacks were obese than whites, more blacks than whites do not have health insurance, and physical inactivity during leisure time was more common among black adults than white adults. Culturally, some new light may be shared as to the difference on how physical activity is viewed in the black community, that would help explain the low levels of physical activity.

This information, can add to the body of research to increase the physical activity levels in the population to reduce the chronic diseases within the population. However, the current policies must change to include providing health insurance for everyone in Georgia. This means that policy makers and public health practitioners need to rethink and make significant changes to the policies so that all are inclusive of obtaining

adequate health care to decrease the chronic diseases and increase physical activity levels in Georgia. The Affordable Care Act (ACA) agenda will be realized when everyone has access the health insurance.

There were four items on the questionnaire related to social support: my friends encourage me to exercise, my friends exercise with me, my friends support regular exercise, and I belong to a health club. On average, the respondents agreed "my friends support regular exercise." Additionally, the majority of the respondents disagreed "I belong to a health club." The literature on social support is consistent with past research.

Sedentary Behavior Choices

In this study, there is no statistically significant relationship between sedentary behavior choices and planned physical activity. This is consistent with research that revealed no correlation between sedentary behavior choices and physical activity. According to Pate, O'Neill, and Lobelo (2008), sedentary behavior choices have been linked with reduced longevity and increase in chronic diseases. For over a century, scholars have linked the benefits of regular physical activity as improving health outcomes. However, the authors note that "most studies have not measured sedentary behavior or differentiated it from light activity" (Pate, O'Neill, & Lobelo, 2008, p. 173). Pate, O'Neill, and Lobelo also note that "it seems reasonable, therefore, to ask whether studies to date actually have examined the health implications of sedentary behavior or if they simply have defined sedentary as the absence of moderate-to-vigorous physical activity" (p. 173).

Even though studies have linked health benefits to physical activity, few studies have measured sedentary behavior. Few reports have self-report instruments that were developed to measure sedentary behavior and light-intensity physical activity. In the future, studies should measure jointly and separately, sedentary behaviors and light activity to determine their health outcomes.

Rhodes and Blanchard (2007) conducted research that assessed if “cross-behavior motives for sedentary leisure-time behaviors (TV viewing, computer use, sedentary hobbies, sedentary socializing) explained additional variance in PA intention and behavior after controlling for PA motives as measured using the constructs of the TPB in both community and undergraduate student samples” (p. 800). The most important finding was the intention to watch TV help explain the additional variance in PA behavior after PA was controlled for cognition and intention was measured by the TPB in both samples. Rhodes and Blanchard assert that “from a theoretical standpoint, the findings suggest that respondents may not consider leisure-time behaviors in a comparative nature, even within the construct of PBC, when responding to standard social cognitive PA measures” (p. 801). The authors went on to say that “from an applied perspective, the findings suggest that TV control strategies, perhaps focusing on behavioral control strategies and affective attitude management, may have an independent effect on promoting PA” (Rhodes & Blanchard, 2007, p. 801).

There were four items on the questionnaire related to sedentary behavior choices: do not like to exercise, watch TV, relax, and do not need to exercise regularly. On average, the respondents agreed "I rather watch TV than exercise." Additionally, the

majority of the respondents disagreed "I really do not need to exercise regularly." The literature on sedentary behavior choices is consistent with past research.

Implications for Policy and Social Work Practice

There are several implications for policy and social work practice concerning planned physical activity levels for women 18-64 years old. Social workers in the public health profession should continue to be the change agents who are responsible for addressing the problem of low activity levels in women. Therefore, the practitioners need to be involved in collaborative efforts with local, state, and national policy makers. In addition, there is a need for epidemiological research to clarify the specific prevalence of planned physical activity among women 18-64.

Implications for Policy

The findings of the study indicated that social support (friends and family) and sedentary behavior choices have some effect on planned physical activity to increase planned physical activity among women which can lead to improvement in program planning. Due to the large number of African-American women respondents, this research sheds light on the cultural difference of the amount of planned physical activity in which African-American women are engaged. However, the researcher did not focus on the African-American female population, but this research does provide some relevant cultural information. The findings of this study are significant due to revealing African-American women's low participation in planned physical activity.

For the general population, the issue of low planned physical activity should be addressed in future research studies by engaging and educating practitioners on

inactivity in women and Theory of Planned Behavior Model (TBM), which will help them convey the information to the general population to provide better program planning. Peer-to-peers practitioners should be trained to lead discussions about the behavioral concepts addressed on planned physical activity, chronic diseases, overweight and obesity that contribute specifically to women.

Further, the trainers should include homework assignments as a concept to assist in adapting behavioral changes over time related to physical health of women. Peer-to-peer trainers should be implemented throughout the community where women gather so the practitioners can provide comfort delivering empirical information in a grass roots setting versus in the health care setting. Therefore, the grass roots setting may be more suited for the delivery of prevention. While the health care setting is not always ideal for the delivery of this information, adding additional informational locations reinforces the information taught by physicians at the on set of chronic disease.

It is important to document the degree of impact on the primary variable (planned physical activity) and the secondary variables (social support and sedentary behavior choices) to gain the public health administration recognition of the importance of maintaining good health within the population. Women are the primary care givers for their families. Sufficient documentation of the impact of proper program planning is necessary to obtain federal funding to support improvements of the field of research and future research studies. With adequate program planning, documentation and funding, administrators can improve the outcome for the intended population. Also, the degree of program planning can enhance the statistical analyses of the collected data in the

population. Local, state, and federal levels should support the U.S. Surgeon General's report, *Vision for a Healthy and Fit Nation* (2010), and *The Affordable Care Act, 2010*.

Implications for Social Work Practice

Implications for future social work research indicate that the planned physical activity questionnaire, *Planned Physical Activity Among Women (PPAW)*, should be revised to partition out the types of planned physical activity for all activities performed during the day. The researcher recommends that the instrument be revised and field tested to determine the validity and reliability of the measure with women. The questionnaire's primary dependent variables of planned physical activity may have presented as a threat to the internal validity of the study. The method of the questionnaire of physical activity behavior did not partition the types of activities, whether they were planned or unplanned.

The study was explored from the perspectives of women in Georgia about their engagement in planned physical activity. The study used an explanatory research design to answer the following questions concerning two behaviors: social support (friends and family) and sedentary behavior choices:

RQ1: Is there planned physical activity among women as articulated by the U.S. Surgeon General's report, *Vision for a Healthy and Fit Nation* (2010), under the *Affordable Care Act, 2010*?

RQ2: Is there a relationship between social support (friends and family) and planned physical activity among women as articulated by the U.S.

Surgeon General's report, *Vision for a Healthy and Fit Nation* (2010), under the Affordable Care Act, 2010?

RQ3: Is there a relationship between sedentary behavior choices and planned physical activity among women as articulated by the U.S. Surgeon General's report, *Vision for a Healthy and Fit Nation* (2010), under the Affordable Care Act, 2010?

As indicated earlier, this study adds to the body of literature concerning planned physical activity in women. There are few studies on women and planned physical activity. The reason for this is difficult to ascertain. But clearly more studies are needed. This study asked some pertinent questions about planned physical activity and again raises issues on social support and sedentary behavior relevant to women. As a result of the findings of this study, the researcher is recommending several changes that could lead to changes for women's health.

There is a need for epidemiological research to clarify the specific prevalence of planned physical activity among women. Stadler et al. (2009) informs that their research "provides evidence that cognitive-behavioral strategies help women be more physically active. The self-regulation technique—mental contrasting with implementation intentions—was effective for initiating and maintaining behavior change. It is a low-cost intervention component that requires only a single session to learn the technique" (p. 34). Furthermore, the authors contend that "people can then apply the technique on their own. The self-regulation technique should be tested further as a tool for short- and long-term change in physical activity and other behaviors" (Stadler et al., 2009, p. 34). With continued research, new light will improve the outcomes for women and families.

Policy makers should be concerned about low physical activity of women.

Peterson's research (2011) informs that "women believed that they have the 'power' to become better stewards of their health with 'a little help from others', including health professionals. Support and guidance is needed from others who possess the knowledge and experience to help them to live healthier" (p. 70). It is imperative that health care systems and providers are culturally competent. Literature suggests that cultural competence in physical activity can support quality improvement and eliminate racial/ethnic disparities among women.

Planned physical activity should be incorporated in the daily schedule.

Luszczynska, Schwarzer, and Mazurkiewicz (2010) remark that:

People imagine scenarios that hinder them in performing their intended behavior, and they develop one or more plans to cope with such a challenging situation. For example: 'If I plan to run on Sunday, but the weather does not permit it, I will go swimming instead' or 'If there is something exciting on TV tonight that I do not want to miss, I will reschedule my workout to the afternoon'. Coping planning might be a more effective self-regulatory strategy than action planning when real barriers are likely to impede the translation of intention into action (p. 152).

Because habits have formed, it is likely for women to continue with the problematic behavior of low levels of activity. Many avenues can be used to assist in changing the behavior within the population. The use of media can assist by providing public health ads on screen on the levels recommended for the development of healthy

behaviors. In this research, planned physical activity levels of women in rural and urban Georgia were not measured.

Programs should be developed to deal specifically with research findings related to planned physical activity for women. Social workers should become advocates for this population group to insure that they receive adequate educational training on women's health issues in addition to disparities in women's health care. Also, social workers should engage in research that will provide data on this population group that will be helpful in facilitating delivery of services. As a result of the study, the two independent variables (social support and sedentary behavior choices) were generally rated as important to planned physical activity. This information was discussed in detail in chapters four and five. The findings of this study shed some light on target prevention programs for improved program planning. Hopefully, this research will improve program planning for women.

APPENDICES

APPENDIX A

IRB APPROVAL LETTER



CLARK ATLANTA UNIVERSITY
Institutional Review Board
Office of Sponsored Programs

October 15, 2011

Ms. Donna Parrish <Donnadparrish@hotmail.com>
School of Social Work
Clark Atlanta University
Atlanta, GA 30314

RE: A Study Of the Relationship Between Planned Physical Activity, Social Support
and Sedentary Behavior Among Women as Indicated by the US Surgeon General
Under The Affordable Care Act Of 2010.

Principal Investigator(s): Donna Parrish

Human Subjects Code Number: HR2011-10-398-1

Dear Ms. Parrish:

The Human Subjects Committee of the Institutional Review Board (IRB) has reviewed
your protocol and approved of it as exempt in accordance with 45 CFR 46.101(b)(2).

Your Protocol Approval Code is HR2011-10-398-1/A

This permit will expire on October 17, 2012. Thereafter, continued approval is
contingent upon the annual submission of a renewal form to this office.

The CAU IRB acknowledges your timely completion of the CITI IRB Training in Protection
of Human Subjects - "Social and Behavioral Sciences Track". Your certification is valid
for two years.

If you have any questions, please contact Dr. Georgianna Bolden at the Office of
Sponsored Programs (404) 880-6979 or Dr. Paul I. Musey, (404) 880-6829.

Sincerely,

Paul I. Musey, Ph.D.
Chair
IRB: Human Subjects Committee

Office of Sponsored Programs, "Dr. Georgianna Bolden" <gbalden@cau.edu>
Dr. Robert Waymer <rwaymer@cau.edu>

225 James P. Brawley Drive, S.W. • ATLANTA, GA 30314-4391 • (404) 880-8000

Formed in 1988 by consolidation of Atlanta University, M.I.F. and Clark College, 1989

APPENDIX B

INFORMED CONSENT FORM

INFORMED CONSENT FORM

A STUDY OF THE RELATIONSHIP BETWEEN PLANNED PHYSICAL ACTIVITY,
SOCIAL SUPPORT AND SEDENTARY BEHAVIOR AMONG WOMEN AS INDICATED
BY THE US SURGEON GENERAL UNDER THE PATIENT PROTECTION AND
AFFORDABLE CARE ACT, 2010

You are invited to participate in a research which explores planned physical activity, social support and sedentary behavior in women 18-64 years old. The purpose of this study is to explore the factors that influence healthy behaviors in women 18-64 years old. This research consists of a consent form and questionnaire concerning your planned physical activity, social support and sedentary behavior.

There are no known risks to participants who agree to take part in this research. There are no known personal benefits to participants who agree to take part in this research. However, it is hoped that those who participate in this research will help progress research in the field of health and wellness for women.

All responses to questionnaires will remain confidential. Participation in this study is voluntary. All participants may decide to quit at any time.

If participants have any questions about the research, they may contact the researcher, Donna Parrish by email at: Donna.Parrish@students.cau.edu or the Institutional Research Board at Clark Atlanta University, Dr Georgianna D. Bolden at 404-880-6979.

My written signature below verifies that I have read the statement above and agree to participate in this research project.

(PRINT NAME) PARTICIPANT

PARTICIPANT SIGNATURE

DATE

APPENDIX C

SURVEY QUESTIONNAIRE

Questionnaire

Planned Physical Activity Among Women

School of Social Work Ph.D. Program

Donna D. Parrish - August, 2011

Clark Atlanta University

Section I: Demographic Information

Instructions: Circle the appropriate answer below. Choose only one answer for each question

1. My gender: 1) ___ Male 2) ___ Female
2. My marital status: 1) ___ Married 2) ___ Never Married 3) ___ Divorced
4) ___ Separated 5) ___ Widowed
3. I have children: 1) ___ Yes 2) ___ No
4. My age group: 1) ___ 18-20 2) ___ 21-30 3) ___ 31-40 4) ___ 41-50 5) ___ 51 & up
5. My education: 1) ___ Less than High School 2) ___ High School/GED 3) ___ Some College
4) ___ College Graduate
6. Annual Income: 1) ___ Under \$30,000 2) ___ \$30,000 - 34,999 3) ___ \$35,000 - 39,999
4) ___ \$40,000 - 44,999 5) ___ \$45,000 - 49,999 6) ___ \$50,000 & up
7. The one racial category that best describes me: 1) ___ Black 2) ___ White 3) ___ Hispanic
4) ___ Asian 5) ___ Other

Planned physical activity is defined as engaging in light or moderate activity five times or more per week for 30 minutes or more each time and/or engaging in vigorous activity three times or more per week for 20 minutes or more each time (CDC, 2003).

Section II: How much do you agree with the following statements?

Instructions: Write the number indicating your answer (1 thru 4) in the blank space in front of each statement on the questionnaire. Choose only one answer for each item and respond to all of the statements.

1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree

APPENDIX C

(continued)

Planned Physical Activity

- _____ 8. I exercise regularly.
- _____ 9. Exercising really helps me.
- _____ 10. I plan for regular physical activities.
- _____ 11. I feel a lot better when I exercise.

Questionnaire continues on back page. Please go to back page -.

Section II continued: How much do you agree with the following statements?

Instructions: Write the number indicating your answer (1 thru 4) in the blank space in front of each statement on the questionnaire. Choose only one answer for each item and respond to all of the statements.

1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree

Social Support

- _____ 12. My friends encourage me to exercise.
- _____ 13. My friends exercise with me.
- _____ 14. My friends support regular exercise.
- _____ 15. I belong to a health club.

Sedentary Behavior

- _____ 16. I do not like to exercise.
- _____ 17. I rather watch TV than exercise.
- _____ 18. Relaxing is better than exercising.
- _____ 19. I really don't need to exercise regularly.

Thank you for your cooperation _____ *The End*

APPENDIX D

SPSS ANALYSIS

TITLE 'PLANNED PHYSICAL ACTIVITY AMONG WOMEN'.
SUBTITLE 'Donna D. Parrish - CAU PhD Program'.

DATA LIST FIXED/

ID 1-3
GENDER 4
MARITAL 5
CHILD 6
AGEGRP 7
EDUCAT 8
INCOME 9
RACE 10
REGULAR 11
HELP 12
PLAN 13
FEEL 14
ENCOUR 15
EXERCI 16
SUPPOR 17
BELONG 18
DONOT 19
RATHER 20
RELAX 21
REALLY 22.

COMPUTE PHYSICAL=(REGULAR+HELP+PLAN+FEEL)/4.
COMPUTE SOCIAL= (ENCOUR+EXERCI+SUPPOR+BELONG)/4.
COMPUTE SEDENTAR = (DONOT+RATHER+RELAX+REALLY)/4.

VARIABLE LABELS

ID 'Case Number'
GENDER 'Q1 My Gender'
MARITAL 'Q2 Marital Status'
CHILD 'Q3 I have children'
AGEGRP 'Q4 My age group'
EDUCAT 'Q5 Education'
INCOME 'Q6 Annual Income'
RACE 'Q7 The one racial category that best describes me'
REGULAR 'Q8 I exercise reguarly'
HELP 'Q9 Exercising really helps me'
PLAN 'Q10 I plan for regular physical activities'

APPENDIX D

(continued)

FEEL 'Q11 I feel a lot better when I exercise'
ENCOUR 'Q12 My friends encourage me to exercise'
EXERCI 'Q13 My friends exercise with me'
SUPPOR 'Q14 My friends support regular exercise'
BELONG 'Q15 I belong to a health club'
DONOT 'Q16 I do not like to exercise'
RATHER 'Q17 I rather watch TV than exercise'
RELAX 'Q18 Relaxing is better than exercising'
REALLY 'Q19 I really do not need to exercise regularly'.

VALUE LABELS

GENDER

- 1 'Male'
- 2 'Female/'

MARITAL

- 1 'Married'
- 2 'Never Married'
- 3 'Divorced'
- 4 'Separated'
- 5 'Widowed/'

CHILD

- 1 'Yes'
- 2 'No/'

AGEGRP

- 1 '18-20'
- 2 '21-30'
- 3 '31-40'
- 4 '41-50'
- 5 '51 up/'

EDUCAT

- 1 'Less High School'
- 2 'HighSchool-GED'
- 3 'Some College'
- 4 'College Graduate/'

INCOME

- 1 'Under \$30,000'
- 2 '\$30,000-34,999'
- 3 '\$35,000-39,999'
- 4 '\$40,000-44,999'
- 5 '\$45,000-49,999'
- 6 '\$50,000 up/'

RACE

- 1 'Black'
- 2 'White'
- 3 'Hispanic'
- 4 'Asian'
- 5 'Other/'

APPENDIX D

(continued)

REGULAR

1 'Strongly Disagree'

2 'Disagree'

3 'Agree'

4 'Strongly Agree'/

HELP

1 'Strongly Disagree'

2 'Disagree'

3 'Agree'

4 'Strongly Agree'/

PLAN

1 'Strongly Disagree'

2 'Disagree'

3 'Agree'

4 'Strongly Agree'/

FEEL

1 'Strongly Disagree'

2 'Disagree'

3 'Agree'

4 'Strongly Agree'/

ENCOUR

1 'Strongly Disagree'

2 'Disagree'

3 'Agree'

4 'Strongly Agree'/

EXERCI

1 'Strongly Disagree'

2 'Disagree'

3 'Agree'

4 'Strongly Agree'/

SUPPOR

1 'Strongly Disagree'

2 'Disagree'

3 'Agree'

4 'Strongly Agree'/

BELONG

1 'Strongly Disagree'

2 'Disagree'

3 'Agree'

4 'Strongly Agree'/

DONOT

1 'Strongly Disagree'

2 'Disagree'

3 'Agree'

4 'Strongly Agree'/

RATHER

1 'Strongly Disagree'

2 'Disagree'

APPENDIX D

(continued)

3 'Agree'
 4 'Strongly Agree'/
 RELAX
 1 'Strongly Disagree'
 2 'Disagree'
 3 'Agree'
 4 'Strongly Agree'/
 REALLY
 1 'Strongly Disagree'
 2 'Disagree'
 3 'Agree'
 4 'Strongly Agree'/.

MISSING VALUES

GENDER MARITAL CHILD AGEGRP EDUCAT INCOME RACE REGULAR HELP PLAN
 FEEL ENCOUR EXERCISUPPOR BELONG DONOT RATHER RELAX REALLY (0).

RECODE REGULAR HELP PLAN FEEL ENCOUR EXERCIS (1 THRU 2.99=2) (3 THRU 4.99=3).

RECODE SUPPOR BELONG DONOT RATHER RELAX REALLY (1 THRU 2.99=2) (3 THRU 4.99=3).

RECODE PHYSICAL SOCIAL SEDENTAR (1 THRU 2.99=2) (3 THRU 4.99=3).

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APPENDIX D

(continued)

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APPENDIX D

(continued)

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APPENDIX D

(continued)

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 END DATA.

FREQUENCIES

/VARIABLES GENDER MARITAL CHILD AGEGRP EDUCAT INCOME RACE REGULAR
 HELP PLAN FEEL ENCOUR EXERCI SUPPOR BELONG DONOT RATHER RELAX REALLY
 PHYSICAL SOCIAL SEDENTAR
 /STATISTICS = DEFAULT.

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[healthystates.csg.org/NR/rdonlyres/BEE2060B-CB0B-4EF2-B830](http://www.healthystates.csg.org/NR/rdonlyres/BEE2060B-CB0B-4EF2-B830-E361D928B17C/0/PreventingDiseasesThroughPhysicalActivityFINAL.pdf)

[-E361D928B17C/0/PreventingDiseasesThroughPhysicalActivityFINAL.pdf](http://www.healthystates.csg.org/NR/rdonlyres/BEE2060B-CB0B-4EF2-B830-E361D928B17C/0/PreventingDiseasesThroughPhysicalActivityFINAL.pdf)

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