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Emotional Support in Managing Cardiovascular Diseases among Hispanic and Non- Hispanic Menopausal Women

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Walden University

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2014

Abstract

Emotional Support in Managing Cardiovascular Diseases among Hispanic and Non-

Hispanic Menopausal Women

by

Claudette Andrea

MA, American Intercontinental University, 2007

BS, American Intercontinental University, 2005

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health

Epidemiology

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Abstract

Effective recognition and proper treatment of cardiovascular diseases (CVDs) in Hispanic woman is a public health problem that needs further investigation. Guided by the stress and coping social support theory, the purpose of this cross-sectional survey study was to examine the relationship between attitudes, emotional support, and the perception of success in managing cardiovascular diseases (CVDs) in 335 Hispanic women living in Atlanta, Georgia. Correlations, independent-sample *t* tests, simple linear regression, and multiple linear regressions showed ethnicity as a moderating variable between the perception of success in handling CVD and emotional support, while emotional support was shown to be a significant predictor of perceived success for all participants. The relationship between the 2 variables was positive for Hispanic women and negative for non-Hispanics women. Diet and exercise also emerged as a significant direct predictor of perceived success in handling CVD when the variable of emotional support was controlled. Key findings also showed that, while Hispanic women had higher scores for perceived success in handling CVD, non-Hispanic women had higher emotional support scores. This study supports positive social change by highlighting the unique needs of Hispanic women to healthcare providers, relative to effective recognition and positive treatment regimens, if cardiovascular disease is suspected. Positive social change will be demonstrated with the recognition of better health outcomes for Hispanic women.

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Dedication

This work is dedicated to my mother, Reda Hanna. Although she left this world 16 years ago, her influence continues to encourage and support me. I also dedicate this study to my beloved family members for their continued love and support, especially my daughter, Maya, who helped to pursue my beautiful dreams. Special thanks to my son, Joey, and my husband, Michel, who loved me unconditionally. I would like to express my sincere gratitude to my sister, Amal Hanna, and my brothers, Samir Hanna and Bill Hanna, who abundantly provided strength and faith while touching my heart.

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Chapter 1: Introduction

Contrary to the perception of women that heart disease is a disease that will only strike men, heart disease was also the number one killer among women as of 2000 (Beattie, 2000). After the age of 50, nearly half of all women's deaths were due to cardiovascular disease (CVD; Beattie, 2000). CVD has been the leading cause of death among women in the United States, accounting for half-a-million deaths and 2.5 million hospitalizations annually (Deaton, 2000). Women who belong to ethnic minority groups have exhibited CVD risk factors to a greater extent than Caucasian women (Juarbe, 1998). Many researchers have found greater prevalence of high blood pressure, physical inactivity, excess weight, and diabetes in African American women than in Caucasian women (Fleury, 2000). Even fewer researchers have examined CVD risk factors among Hispanic Americans, who constituted 11% of the population in the United States in 2002 (Eyler, Vest, Sanderson, & Wibur, 2002).

More researchers must conduct studies regarding the risks of heart disease in Hispanic women. It is important to note that there is a deep connection between a person's emotions, nervous system, endocrine system, and immune system (Cohen, 2004). There was a link demonstrated in the literature between the availability of emotional support and the direct health outcomes produced (Eyler et al., 2002). As a result, this study was intended to investigate the impact of emotional support from friends, family, and medical professionals in helping to deal with CVD in Hispanic and non-Hispanic menopausal women. The chapter begins with the background of the

problem, problem statement, and significance of the study. The chapter will include the research questions that guided the study and a short definition of the main terms. The theoretical framework for the study is also a part of the content, with further discussion provided in the literature review. These sections establish the practical goals for the study and illustrate the need for continued CVD management research in the field of health.

Background

Coronary heart disease (CHD) has been the main cause of CVD in Western women, and risk rates increase with age (Grenon et al., 2013). These rates begin to accelerate after menopause, which indicates the protective effect of natural estrogen (Miller et al., 2013). Thus, a Caucasian woman 50 years of age has a 46% chance of developing heart disease and a 31% chance of dying from this disease (Cohen, 2004). Deaths caused by CHD occur at an average age of 74 years for women (Anita, 2011; Cohen, 2004; Ketterer et al., 2002).

Today it is no secret human emotions have a role in the design of both integrated health and in the development of disease. Uchino (2006) stated that over 90% of illnesses have a psychosomatic origin; in fact, personality characteristics, management of emotions humans have, and how they deal with stress, conflicts, failures, and frustration can enhance or develop various diseases. Researchers considered psychological care to a patient in critical condition and his or her family as a highly sensitive area that would entail ethical responsibilities to health professionals (Call, Pfefferbaum, Jenuwine, & Flynn, 2012). The nature and special conditions of the situation faced by the patient can

have a strong emotional impact on both the patient and his or her relatives; psychological support can help patients deal with such impacts.

A patient with a critical CVD may have certain characteristics that differ from other patients in the same state and health condition. The participation of a patient through health literacy should be encouraged because this is a factor in the effective management of health conditions (Ishikawa & Yano, 2008). Menopause is the cessation of menstruation and the woman's fertile phase. Menopause is the period in which the female body completes its reproductive stage by no longer producing eggs. Analyzed from the biological point of view, menopause tends to reflect a woman's aging physical condition (Cohen, 2004; Uchino, 2006). Menopause is an experiential transition to women's lives (Dare & Green, 2011). During the menopausal period, there is a strengthened need for social support networks (Dare & Green, 2011). Social support may take the form of mediated communication channels where the context would take into consideration women's transition (Dare & Green, 2011).

When women do not have proper counseling, the process of menopause becomes difficult and there is a great emotional weight not only for them, but for their families and society in general (Barrera, 2000). Socially isolated people possess the highest risk for a variety of diseases (Schwarzer, Knoll, & Rieckmann, 2003). Further, Schwarzer et al. (2003) noted that social integration can influence the onset, progression, and recovery from certain kinds of illnesses. Women who acknowledged the highest level of social support also reported the fewest complaints on health (Schwarzer et al., 2003). The concrete link between social relationships and incidence of CHD was not very consistent.

Repetti, Taylor, and Seeman (2002) suggested that such inconsistency may be due to the fact that greater social integration might implicate greater interpersonal conflicts or other such problems, leading to mixed effects on health risks. The lack of sufficient studies determinative of the effects of social integration to female participants is the cause of the inconclusive relationship between social integration and incidence of CHD among women (Cohen, Kaplan, & Manuck, 1994). There are also studies that have been used to show consistent associations of social integration with prognosis post myocardial infarction and post stroke (Baseman, Fisher, Ward, & Bhattacharya, 2010; Berkman, Leo-summers, & Horwitz, 2002). Berkman et al., (2002) suggested greater emotional support contributed to protective benefits of social integration after onset of CVDs, and thereby aided recovery. Importantly, social relationships can also have potentially negative impacts on physical and mental health via their demands and criticisms.

When it comes to achieving a particular health state, a range of factors come into play. Human emotions along with menopause and social relationships can impact health. In fact, Repetti et al. (2002) found that while attitudinal and behavioral pathways such as proper diet, exercise, and quitting smoking can have an impact on health, social relationships influence health via their direct connections to physiology.

Given the complexity of female social relationships, researchers must conduct more studies to explore the connection between social relationships and physiological health. There are crucial questions regarding the benefits that social relationships offer to women's health. Though women lead longer lives, they are more prone to certain

conditions such as obesity and chronic conditions; by the age 65, they have equal incidences of CVD (Eyler et al., 2002).

The fact that women suffer more chronic conditions that reduce their quality of life, despite their longer lives and more positive relationships, confounds the evidence of the health-protective value of positive relationships. For instance, women have greater incidence of obesity, diabetes, autoimmune diseases like lupus and arthritis, chronic pain, fatigue syndrome, depression, and osteoporosis, along with incidence of CVD by age 65 (Eyler et al., 2002).

In addition to women being under-studied with respect to CVD, only a few studies are about Hispanic women, despite becoming a larger proportion of the population of the United States. As one of the fastest-growing ethnic minority groups, projections state that the Hispanic population will increase to 96.5 million people or 24% of the population by 2050 (Eyler et al., 2002). Hispanic Americans are a heterogeneous group where Mexican Americans constitute 64% of the population. Studies have shown higher prevalence of excess weight, diabetes, and untreated hypertension in Mexican American women than in Caucasian women (Eyler et al., 2002). As a result, it has been, and will continue to become, increasingly important to study CVD with respect to both women and Hispanic women.

Statement of the Problem

This research study explored the impact of emotional support from caregivers, support networks, and family in managing CVD between Hispanic menopausal women and non-Hispanic menopausal women. Because many previous studies have been

community based, they have not focused on particular ethnic groups (Anita, 2011; Cohen, 2004; Eyster et al., 2002; Ketterer et al., 2002). Failing to understand significant ethnic differences can degrade ability to effectively serve an ethnic group. An area that varies the most along ethnic lines is emotional responses that are culturally biased (Mosca et al., 2010). For this reason, an examination of emotional support among Hispanic and non-Hispanic ethnic groups was needed. I discussed and analyzed the impact of emotional support in managing CVD between Hispanic menopausal women and non-Hispanic menopausal women.

The research has an objective to broaden the theoretical basis underlying emotional support and emotional wellbeing and its ability to promote health care. Because knowledge about emotional support and wellbeing in the management of health care problems in general and particular is broad, it deserves and demands a theoretical basis of comparative depth. The person is an integrated whole, the separation between body and self, between the body and the mind opens the door to disintegration, to the devaluation and makes people increasingly vulnerable to disease (Cohen, 2004; Uchino, 2006). All diseases are psychosomatic or somatic psychic phenomena; the experience of this reality is clear when the deep integration between the emotions, the nervous system, the immune system, and the endocrine system is recognized. The signs of any health imbalance create disintegration of the human body in all its complexity (Cohen, 2004).

Many women worry about the arrival of menopause, especially when they know little about it. The word menopause, of Greek origin, means *step* (Gottlieb, 2000) that is

a period opposite to puberty, where estrogen production declines. There are many changes and many bodily sensations associated with menopause (Repetti et al., 2002).

It is no accident that the two leading causes of death in the United States, and generally in the entire Western world, are associated with inadequate emotional handling. Specifically, CVD is associated with experiencing extreme emotions of anger, hostility, stress, and malignancies, such as guilt, resentment, and bad losses made (Cohen, 2004).

Ketterer et al. (2002) suggested that women with a history of mental illness during menopause are at high risk for serious emotional outbursts as a result of normal psychological crises caused by menopause. This crisis can be very serious if a woman does not receive professional therapy. If the crisis does reach serious levels, family support can be sufficient to help alleviate the circumstance (Brown, Nesse, Vinokur & Smith, 2003; Ketterer et al., 2002)

Researchers have indicated that there is a direct connection between emotional support availability and health outcomes. Several hurdles prevent CVD among women including care giving responsibilities, lifestyles habits, and psychosocial risk factors. The understudy of Hispanics across academic history is due to factors such as secretiveness and fears about legal status in the United States that would prevent full disclosure of sensitive information (Eyler et al., 2002). Hence, this study assessed the impact of emotional support from different support networks on the management of CVD among Hispanic and non-Hispanic menopausal women.

Purpose of Research

The purpose of the research was to explore the holistic differences between emotional support services provided to Hispanic and non-Hispanic menopausal women concerning CVD management. The research needed to get around the fear of women about giving information regarding their health situations. The purpose of this research was to establish the differences, if any, between the emotional support services to provide to Hispanic and non-Hispanic postmenopausal women concerning CVD management. The research was designed to uncover the effects of menopause in Hispanic and non-Hispanic women managing CVD. Examination of attitudes toward emotional support and perception of success in managing CVD to find differences between women given emotional support occurred.

Historically, Hispanics have remained understudied due to their fear of disclosing sensitive information regarding their legal status in the United States (Cavahos-Rehg, Zayas, & Spitznagel, 2007). Recruiting participants in Roman Catholic churches serving both Hispanics and non-Hispanics can offer the opportunity to help these participants feel emotionally secure about providing health-related information (Cavahos-Rehg et al., 2007).

Without considering the psychological aspect of menopause, both women and their families view this period as an endocrine dysfunction that produces severe disorders. Women, however, may manifest personality disorders, immaturity, or neurotic problems (Anita, 2011; Cohen, 2004; Ketterer et al., 2002). This, as a result, can be

difficult for the affected woman, her family, and society if she is not properly counseled (Barrera, 2000).

Family support is necessary during a woman's menopause (Cohen, 2004). Women often face emotional highs and lows during this period. Irritation and the desire to mourn for no apparent reason are common menopausal symptoms. According to Cohen (2004), exercise in moderation can help lower these symptoms.

If the symptoms are part of a persistent depression, it is best to consult a mental health professional, traditional or alternative, which has both the professional preparation necessary and empathy and sensitivity sufficient to provide emotional support to women (Anita, 2011; Hogan, Linden, & Najarian, 2002). CHD is the main cause of deaths among Western women and the risk increases with age. A 50-year-old Caucasian woman has a 46% chance of developing heart disease and a 31% chance of dying from it (Cohen, 2004).

Research Questions and Hypotheses

The research questions provided a guide to the study regarding how social and emotional support provided by the participants' social network, family members and friends, in addition to diet and exercise, can help female patients manage their CVD. The criterion variable for Hypotheses 1 through 4 (H1-H4) was the perception of success in managing CVD in postmenopausal women between the ages of 55 and 84. The predictor variables for Hypothesis 1 (H1) were attitudes toward emotional support. The moderator was ethnicity (non-Hispanic, Hispanic) while the predictor variables for Hypothesis 4 (H4) were diet and exercise.

Research Question 1 (RQ1): What is the relationship between social and emotional support and perception of success in managing CVD among women in postmenopausal stage between the ages of 55-84?

Null Hypothesis 1 (H_{01}): There is no statistically significant relationship between social and emotional support and perception of success in managing CVD women in postmenopausal stage between the ages of 55-84.

Alternative Hypothesis 1 (H_{A1}): There is a statistically significant relationship between social and emotional support and perception of success in managing CVD among women in postmenopausal stage between the ages of 55-84.

Research Question 2 (RQ2): What is the relationship between social and emotional support and perception of success in managing CVD among women in postmenopausal stage between the ages of 55-84 after introducing the moderator of ethnicity?

Null Hypothesis 2 (H_{02}): There is no statistically significant relationship between social and emotional support and perception of success managing CVD among women in postmenopausal stage between the ages of 55-84 after introducing the moderator of ethnicity.

Alternative Hypothesis 2 (H_{A2}): There is a statistically significant relationship between social and emotional support and perception of success in managing CVD among women in postmenopausal stage between the ages of 55-84 after introducing the moderator of ethnicity.

Research Question 3 (RQ3): What is the relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in postmenopausal women?

Null Hypothesis 3 (H₀₃): There is no statistically significant relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in postmenopausal women.

Alternative Hypothesis 3 (H_{A3}): There is a statistically significant relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in postmenopausal women.

Research Question 4 (RQ4): What is the relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in postmenopausal women after controlling for social and emotional support?

Null Hypothesis 4 (H₀₄): There is no statistically significant relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in postmenopausal women after controlling for social and emotional support.

Alternative Hypothesis 4 (H_{A4}): There is a statistically significant relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in post-menopausal women after controlling for social and emotional support.

Theoretical Concept Related to the Area of Inquiry

The research has an objective of broadening the theoretical basis for emotional support and emotional well-being and its ability to promote health care management. The theoretical framework for this study was stress and coping social support theory (Barrera, 1986). Knowledge about emotional support and wellbeing in the management of health care problems in general, and of CVD in particular, is by its nature broad, and therefore deserves and demands a theoretical basis of comparative depth.

The Nature of the Study

A quantitative, correlational research design employing survey methodology tested the four hypotheses. Correlation research studies measure the relationship or association between two variables (Alreck & Settle, 2004). Quantitative designs support theory and are considered a deductive reasoning technique while qualitative studies are inductive by nature. Given that the hypotheses come from theory, a quantitative approach was appropriate.

The research was guided by four research questions about how emotional support provided by care providers, family members, and friends have helped or not helped female patients in managing CVD. The dependent variable for H1-H4 was the perception of success in managing CVD in postmenopausal women between the ages of 55-84. The predictor variables for Hypothesis 1 (H1) were attitudes toward emotional support. The moderator was ethnicity (non-Hispanic, Hispanic) while the predictor variables for Hypothesis 4 (H4) were diet and exercise.

The aim of this research study was to determine the impacts and changes that menopause brings when having to manage CVD. Determining and discussing the attitudes and opinions regarding emotional support may help handle CVD. Distinguishing between women with CVD who receive emotional support and women who do not is possible.

Convenient selection of participants in this research study took place; random selection or random sampling is probability selection from the population, meaning that the sample will be representative of the population. For example, when the researcher uses formed groups or parishioners volunteers from Catholic church communities, this sample is a convenience sample (Creswell, 2009, p.155). By its nature, convenience sampling sacrifices generalizability and therefore may not deliver adequate representation of the target population. Despite the insufficiencies, convenience sampling is useful because it is an efficient method by which to obtain a sample population when random sampling is not feasible due to time constraints (Neuman, 2003). The sample consisted of 335 non-Hispanic and Hispanic women who have developed CVD during menopause in Atlanta, Georgia. Data came from Hispanic communities.

Definitions of Key Terms

Attitude: Attitude is “a relatively enduring organization of beliefs, feelings, and behavioral tendencies towards socially significant objects, groups, events or symbols” (Barrera, 2000).

Cardiovascular disease (CVD): A group of disorders of the heart and blood vessels and include: CHD cerebrovascular disease, peripheral arterial disease, rheumatic

heart disease, and congenital heart disease. Blood clots in veins can move and block blood circulation to the heart and lungs. Heart attacks and stroke occur when blood is not able to flow to the heart or brain; build-up of fatty deposits on the inner walls of the blood vessels that supply the heart or brain can make the walls rigid and thick. Bleeding from a blood vessel in the brain or from blood clots can cause strokes (World Health Organization, 2013).

Emotional support: Comfort provided through listening and understanding one's emotional state (Berkman Glass, Brissette & Seeman, 2000).

Ethnicity: A group of people that identifies with others through a common heritage, consisting of a common culture (Health and Nutrition and Examination Survey, 1988).

Managing: The maintenance of wellbeing through changes to diet and exercise (Hogan et al., 2002).

Menopause: Menopause is a normal phase of a woman life; it is the last time of period. Women begin to start having symptoms earlier. Changing levels of estrogen and progesterone are two female hormones made in ovaries, which might cause these symptoms. Women and their physicians call the *menopausal transition* as *perimenopause*. Perimenopause starts after a full year without a period, various physical and emotional changes will occur in the rest of her life (National Institute of Health, 2008).

Perception: "Particular way of understanding or thinking about something"; "the ability to understand and make good judgments about something" (Brown et al., 2003).

Success: The achievement of something planned or attempted; "a plan or attempt that achieves good results" (Brown et al., 2003).

Assumptions and Limitations

While it may be appropriate to apply the results to the population, it may not be an accurate assumption of all menopausal women in other parts of the United States. Unknown variables in the study may have impacted the outcome of the results. I had no knowledge of these variables at the time of the study. Another limitation of the study related to those sampled individual women who have done the survey. The sample was limited to Hispanic and non-Hispanic menopausal women with CVDs from Atlanta, Georgia. These findings may not have been applicable to these Hispanic and non-Hispanic menopausal women living in different areas who reside in different regions of the United States. Also, these findings might not have been suitable for comparisons to other racial women and ethnic groups across the country.

Another limitation of this study was that I directed the sample recruitment to church communities. Therefore, the ability to generalize these findings to women from ethnic groups that managed CVD cases in their group might have been restricted. Also, the sample utilized involved volunteers rather than a randomly selected sample. Even with a volunteer sample, there were some possible intervening variables (i.e., social scheduling conflicts, participant shyness, functional limitations that result active participation, distrust of survey, and discomfort with the English language, etc.) that distinguished those who participated versus those who elected not to volunteer for the study.

The fact that the data collected relied on self-report and personal responses that might have been desirable socially and set biases is another limitation of the study. All the surveys were in English and in Spanish with a sixth-grade reading comprehension level. Thus, it is reasonable that the reading level may have resulted in women with lower levels of education not participating in the study.

Consequently, the sample size might have posed a problem of statistical power. For example, the sampling of women in general, and those of Hispanic and non-Hispanic women was smaller than anticipated. Replication of these findings with larger samples is therefore a must.

The Significance of the Study

Such research would provide the motivation for more emphasis at the center of the nursing profession upon emotional support training for nurses and the coordination of nursing efforts with the patient's emotional support network outside of the patient care effort. Such an effort is crucial to treating people as social beings. The health care profession has gotten so technical and mechanical that practitioners seem to have lost track of the human component in the craft that provides them their purpose and mission. If patients see and feel this support, they will have more of a chance at successful recovery.

In this era of increased CVDs among menopausal women coupled with the increasing health costs, providing quality preventive health education and health care is a necessity. Finding appropriate ways for women to access and utilize health promotion

should be of particular importance. A variety of programs exists to satisfy the quality of life.

Identifying and understanding emotional support attitudes toward social support have the potential to improve the overall health status of Hispanic and non-Hispanic women by equipping health professionals with the appropriate tools to elicit positive lifestyle changes in the general public.

This study was important because it could increase understanding of the impact of social and emotional support on the overall health of women. The social perspective of health suggests that social relationships impact women's health (Mosca, Greenberger, Dolor, Newby, & Roob, 2010). A variety of studies have examined the role of emotional support derived from the social network in psychological and physical health. However, little research has addressed the association between attitudes toward social support in managing CVDs among two different ethnic groups. This study provided an understanding of the attitudes of the emotional support and its effect on the health of Hispanic menopausal women and non-Hispanic menopausal women.

Because many studies have not addressed medical issues (such as community nursing approaches solely), many have neglected ethnic emotional issues. In this way researchers usually fail to frame the problem more clearly as small but significant ethnic differences, if not understood, degrade the ability to effectively serve that group. According to Mosca et al. (2010), many barriers exist to prevent CVDs among women including care giving responsibilities, lifestyle habits, and psychosocial risk factors.

Further research should help evaluate the programs to educate and support caregivers on reducing CVD risk.

Summary

This research study was conducted to explore the impact of emotional support from medical professionals and support networks on the management of CVD among Hispanic and non-Hispanic menopausal women. Many studies were about clinical and medical problems that menopausal women can face (Anita, 2011; Cohen, 2004; Hogan et al., 2002; Ketterer et al., 2002). On the other hand, ethnic emotional issues have been mistreated. The researchers failed to set the problem clearly because small, but significant ethnic differences can degrade the ability to effectively serve that group (Anita, 2011; Cohen, 2004; Eyler et al., 2002; Ketterer et al., 2002). Barriers that prevent CVD among women include care giving responsibilities, lifestyles habits, and psychosocial risk factors (Mosca et al., 2010). Further research should focus more on evaluating the programs implemented to educate and support caregivers on reducing risk of CVD.

Chapter 2: Literature Review

This chapter includes a review of the extant literature that is related to the impact of emotional support on Hispanic and non-Hispanic women. Although extensive studies on women's social support structures exist, there is an understudy of Hispanic women. Many menopausal women possess personal and social resources that enable them to engage in a wide variety of social relationships and associated activities. However, menopause causes changes that may affect health, lifestyle, and the availability of social support derived from social relationships. This study focused on effectively meeting the needs of menopausal women suffering from CVD with the help of their families, friends, and social networks.

I conducted the literature review through a thorough search of various medical journals. I also examined sources for evidence regarding how social support influences the wellbeing of menopausal women and their ability to adapt to the challenges that they are facing. The research articles were about specific insights that had a connection to the results of the current study and used to recommend future research paths. This chapter provides a detailed literature review that explores the relationship between emotional support groups and how menopausal women deal with CVD. This chapter begins with an overview of the literature that focused on the role of emotional support and health care management, and I have emphasized the gaps in existing research on this subject. Following this overview, I provide a detailed exploration of emotional support groups. With the emotional support framework thoroughly explained, this chapter progresses to the exploration of health care management. Finally, this chapter concludes with a review

and synthesis of the major findings that highlight the research gap that this study addressed.

The subject knowledge regarding emotional support and wellbeing in the management of health care problems in general and of CVD in particular is by its nature broad and therefore deserves and demands a theoretical basis of comparative depth. This research examined the impact of emotional support from support groups in the management of CVDs between Hispanic and non-Hispanic menopausal women. Because many of the past studies were community-based—that is, they adopted community nursing approaches—there has been no focus on ethnic differences. The authors of these studies usually failed to frame the problem clearly, because small, but significant ethnic differences, if not understood, debase the ability to serve that group effectively. This study offered specific insights (based on the underlying trends) that revealed how ethnic differences impact the physical wellbeing of Hispanic menopausal women.

Impacts on Menopausal Women

Not taking into account the psychological aspect of the process by which a woman goes through menopause, women and their families perceive the transition is as an endocrinologist dysfunction (in the hormonal system) that produces severe disorders. For example, Anita (2011) and Ketterer et al. (2002) found that some women may manifest personality disorders, immaturity, or problems of a neurotic due to menopause. When a woman reaches 50 years old, and natural [menopause](#) ensues, her risk for heart disease increases dramatically. Even for young women who have undergone early or [surgical menopause](#) and are not taking estrogen, their risk is high. For women who have

gone through menopause with other heart disease risk factors like diabetes, smoking, high blood pressure, high low density lipoproteins (LDL) or "bad" cholesterol, low high density lipoproteins (HDL) or "good" cholesterol, obesity, inactive lifestyle, and/or have a family history of heart disease, the risk is even higher (Beatie, 2000).

Understanding the influence of emotional support on the health care management of menopausal women can have implications to broaden the subject knowledge about emotional support and wellbeing in the management of health care problems in general and of CVD in particular and therefore deserves and demands a theoretical basis of comparative depth. With respect to mental health, Repetti et al. (2002) concluded that studies consistently showed positive effects when social integration between human beings existed. Increased risks for psychological distress, on the other hand, result from social isolation and/or loss of important social ties. A key point stressed by Lukkarinen and Hentinen (1998) was that the quality of social relations matters.

Mosca et al. (1997) discussed how CVD is declining among Caucasian and African American women. This is partially because of better prevention and education among this group of women. However, at the same time, other segments of the population, most notably Hispanic women, have been reporting an increase in the number of cardiovascular cases. This is because this segment of the population was not receiving the same kind of treatment options from their primary care doctors and tended to receive fewer physicals and routine checkups than the other groups of women. In the future, this will contribute to a 25% increase in the total number of cardiovascular cases (Mosca et al., 1997). This can be problematic because a lack of education means that many women

will often engage in lifestyles that can make them susceptible to CVD. Consequently, Mosca et al. (1997) recommended that all primary care doctors discuss the impact of CVD on the underlying levels of health of women once they reach menopause. With the adoption of this kind of approach, more women will receive major benefits by being able to understand and cope with the challenges they encounter. This information is beneficial because it enables people to comprehend the role of primary care doctors in providing emotional support to Hispanic and non-Hispanic women, as they are educating them about the effects of menopause and are apprising them of new approaches for overcoming the challenges they may be facing. Once this information is provided, Hispanic and non-Hispanic women can understand how to adapt their lifestyle choices to mitigate the effects of menopause (Mosca et al., 1997).

Medical Professionals and the Perception of Success

Patients with CVD require close clinical management and encouragement to identify and control their symptoms. Nurses are in a critical position to do this as they have the ability to address patients' clinical needs while simultaneously attending to the educational and support needs of patients and their families (Dahl & Penque, 2000). To decrease the frequency and cost of hospital admissions, inpatient and outpatient care must be effectively integrated (Bosson, 2003). The role of the nurse in the medical setting is to improve patient outcomes and decrease hospital admissions, efforts that also serve to lower health care costs.

Fonarow et al. (1997) suggested that patients derive confidence from regular personal contact with a medical team that is dedicated to treating their chronic CVD. In a

study by Paul (1997), patients attending a heart failure clinic saw a cardiologist who obtained a full history and performed a medical assessment of each patient. Moreover, the nurse did not evaluate the patients' medications and did not review the purpose, dosage, and side effects of each drug. This information is not contained in a chart stating the appropriate dosage and schedule in order to ensure each patient's understanding of the drug regimen. During follow-up clinic appointments, no reinforcement of medication regimen occurred, because it was important for patients to hear such information repeatedly remaining to common modifications or adjustments to their medications.

As a result, the nurse should spend more time with patients to assess their dietary and exercise acquiescence and restate and discuss daily weight monitoring and its significance to their treatment management (Paul, 1997). A key role of nurses is to involve the patients and their family members in their care plan, thereby enabling the patients to assess their own condition, ensure that they understand their treatment regimen, and can recognize signs and symptoms in controlling their treatment regimen, which will enable them to recognize the effectiveness of any changes and the appropriate actions to be taken (Bosson, 2003). Deaton (2000) noted that positive effects on patient outcomes come from the support of nurses. To give an example, hospitalization can be avoided when patients are able to access a health care provider for remedy, as soon as problems are changes are experienced (Bosson, 2003).

Patient education is also important. Beattie (2000) reinforced this premise has been when he stated the significance of early sign and symptom recognition. The knowledge on when to report information such as irregular weight gain, changes in

activity tolerance, convulsive nighttime dyspnea or orthopnea, and onset of an acute illness, is included in patient education (Beattie, 2000). Patients should be educated on medication effects and how to avoid situations or behaviors that may lead to acute elevations in blood pressure and ischemia (Beattie, 2000). Risk factor management, which could be done through proactive actions such as self-denial from smoking, maintaining a normal weight, healthy eating, and emotional coping strategies, should also be encouraged (Bosson, 2003). Patients must maintain a suitable level of daily activity because this is necessary to decrease oxygen demand and increase tolerance on exercise and other physical activities (Weinberger & Kenny, 2000). Further, Weinberger and Kenny (2000) noted that educating, supporting, and assisting patients and their families in coping with CVDs and providing realistic long-term expectations is an essential element to the role of a nurse.

Williams (2008) discussed how menopause can have an impact on the physical well-being of women. During menopause, women's bodies undergo drastic changes. A few of the most notable changes include hot flashes, night sweats, and extreme hormonal changes. Williams (2008) determined that these changes influence how women view their situation in life and the way they feel about themselves as a person, which effects changes in their underlying levels of health. According to Williams (2008), it is during the menopausal and postmenopausal stages that caregivers need to focus on how the changes are impacting women. The information from this source is useful, because it highlights how doctors and nurses play a primary role in providing emotional support to Hispanic and non-Hispanic women. This helps to corroborate the findings from previous

articles, which illustrate that health care professionals must be responsible in leading everyone in understanding the current occurrences and how they can adapt to them (Williams, 2008).

Among an older population of patients with congenital heart disease, high levels of anxiety and depression are more prevalent (Riley et al., 2012). Further, Riley et al. (2012) noted that the emotional condition among old CHD patients "highlights the need to routinely assess anxiety and depression in this patient group to provide psychological support appropriately." (p. 1050)

Friends and the Perception of Success

A research led by Johns Hopkins University, as reported by Desmon (2012) suggested that women who experience an early menopause have twice the risk of CHD and stroke. The research further noted that the risk is similar across various ethnic groups (Desmon, 2012).

According to Mosca et al. (1997), CVD currently claims the lives of many women in America and most developed countries. This disease accounts for more than one million deaths among women, that is, 45.2% of all deaths in women, which is higher than the number of deaths in women owing to cancer. In addition, the mortality rate among Black women suffering from CVDs is higher than that among White women. Mosca et al. (1997) noted that current developments witnessed in cardiovascular research will create a vital impact on prevention, clinical care, and outcomes of women; thus, providing recommendations for future work. The article further recommends that women have damp moods during their menstrual period which may increase the risk of the onset

of CVDs. To prevent the development of risk factors, healthcare systems need to begin to change perspectives and emphasize healthy lifestyles among young women (Mosca et al., 1997). Mosca et al. (1997) suggested that healthcare professionals must be thoughtful to gender differences when it comes to presentation, prognosis, and responsiveness to CVD treatment. The scientists need to be vigilant in the examination of the potential differences between men and women in the pathophysiology and clinical outcomes of CVD (Mosca et al., 1997). More research in minority women is of particular importance, given the high level of risk factors and mortality rates in this population. The health educators will be role players in the communication and translation of scientific developments on women and heart disease (Mosca et al., 1997). To provide equal access to care for women with diverse backgrounds, the public policy makers should take the lead in the creation of fair and just rules (Mosca et al., 1997). The concluding remarks of Mosca et al. (1997) highlighted that achieving betterment for the entire population, can only be made real through the future progression of a multifaceted approach to cardiovascular science and medicine. Another researcher found that menopausal hormonal changes such as hot flashes and night sweats could cause women to view themselves differently and require more support and sensitivity from their caregivers.

Special attention to how socioeconomic status impacts the health of both menopausal and non-menopausal Hispanic women is a must. Although Hispanic women from wealthier backgrounds are better equipped to deal with their conditions, those from poorer backgrounds tend to experience more stress and a more pronounced lack of support, which compromises their health (Fleury, 2000). An article by Bowman (2006)

emphasized the importance of exercise for women suffering from CVD, as it reduces their blood pressure, bolsters their perspective on life, and enables them to connect with others going through comparable scenarios. All these factors help to determine how well or poorly a woman will manage her CVD.

Over the last several decades, CVD has become increasingly common in women, with approximately 25% of American women suffering from this condition. This may partially be due to diet and lifestyle choices, which impact underlying health. Once a person reaches the age of 70 years, these issues can become even more challenging, as the odds of having hypertension rise to 64% for this age group. For Hispanic and non-Hispanic women, preventing CVD is further complicated by the changes that their bodies undergo during menopause, especially if they drink alcohol or smoke cigarettes (Rosdhal, 2008). These changes are worrisome because not addressing them would increase the odds that a person will suffer a major heart attack or stroke at some point in the future. Once such an event occurs, other health conditions such as diabetes can complicate the current health condition. A lack of emotional support during such health crises can make matters worse by increasing the stress levels of the patient. Most individuals suffer a period of depression following adverse health events related to CVD (Cohen, 2004). Stress and depression can cause lingering health effects. As a result, patients often have trouble overcoming health challenges and the impact that these have on their lives.

An effective example of the relationship between social support and health is part of a study of the American Heart Association, which sampled 360 patients who suffered from a heart attack or stroke. Researchers found that the patients' underlying condition

became better or worse depending on their interactions with others around them and the type support they received. Individuals with tremendous amounts of emotional encouragement were able to overcome the challenges associated with their diseases; however, those without the same kind of support often realized larger declines in their overall levels of health (O'Connor, 2005).

Cohen (2004) provided insight about how others may frustrate people by delineating evidence of physiologic effects tied to social relationships. According to Cohen (2004), one primary pathway that links the social world to internal physiology is social connections. Social connections affect cognitive/emotional processing and interpretations of environmental stimuli, influencing neuroendocrine arousal (Stephens & Diez-Roux, 2008). Cohen's (2004) emphasis, however, was on research that demonstrates social relationships affect health via their direct links on physiology. While support groups are beneficial to women with breast cancer, other researchers suggested that social relationships and intimacy may also have an impact on women. Repetti et al. (2002) found that women get fewer health benefits from having large social networks or certain social and emotional support groups). Reis (1998) reported that women are more often than men, recipients of men and women's self-disclosure. Women provide men with more intimacy than they receive (Reis, 1998). These findings may suggest that deeply ingrained social expectations may discourage the acknowledgment or reporting of unsatisfactory social relationships, despite the costs of those relationships. That is, women take care of emotional issues in marriage, child rearing, and extended families and fail to recognize that they find themselves in unhappy social relationships. This may

partially explain why, despite their higher scores for generalized positive relationships in the MIDUS study, women reported more symptoms than did men (Berkman et al., 2002). Along these lines, Berkman et al. (2002) and Cubbin, Hadden and Winkleby (2001) found that those reporting no social support had lower incidence of atherosclerosis.

Fleury (2000) did a study that reflect that those reporting no social support had lower incidence of atherosclerosis in light of societal values on self-reliance, tying self-worth to material gain and social status. Steptoe and Diez-Roux (2008) work on attachment styles in young adults may also elucidate the finding that avoidant adults with high autonomy and environmental mastery scores thrive more with lower social connection than individuals with secure or anxious attachment styles.

The changes that women undergo during menopause make their treatment for CVD particularly challenging. The hormonal changes associated with menopause can cause women some changes, which can lead to depression and isolation. Psychological issues common during this time include negative self-image (due to physical changes) and empty nest syndrome (missing children who have left home). Without emotional support during this time of their lives, women's underlying health can suffer. Once their health begins to decline, they can fall into a form of depression that will further affect their physical wellbeing and increase the likelihood of developing CVD (Phelps, 2011).

Family and the Perception of Success

Gallo (2003) investigated the impact of CVD on menopausal and postmenopausal women and compared their underlying levels of CVD. This study occurred over a 14-year period by conducting an ultra sound on different arteries and chambers inside the

respondents' hearts. Women had another ultra sound and while monitoring the issues that they were facing. Gallo (2003) found that the quality of the women's marriages affected CVD, because the number of severe cases of CVD among women who reported marital problems was higher than that among women who reported happy marital lives. This is because extremely stressful marriages make women feel that they are separate from their spouses and lead them to engage in unhealthy activities. At the same time, the additional stress from the constant disagreements that may be occurring in stressful marriages can lead women developing high blood pressure (Gallo, 2003).

However, those women who have less stressful marriages will be able to cope with menopause and CVD more effectively. This is because their spouses give them a feeling of being loved and supported, and this makes them to feel as though they are not facing these challenging situations alone (Gallo, 2003). Such a situation enables them to experience less stress and a greater sense of compassion, thereby dramatically improving their underlying levels of health. Gallo (2003) provided useful and significant information, because it showed a direct connection between the levels of emotional support that menopausal/postmenopausal women receive and their ability to deal with the effects of CVD. This determines the odds of whether they will be able to manage the condition and the lingering impact that it will have on them. As a result, this helps to corroborate the effects of emotional support on all groups of women who fall in these categories (Gallo, 2003).

Tsang (2000) discussed that women have higher rates of CHD than men. Women are not consistent to change their lifestyles, while men are more active. The difference

between men and women is that men seek treatment early and this helps to reduce the chances of them having a heart attack or stroke. Therefore, the mortality rates associated with the condition is lower among men than women. Tsang (2000) found that applying a similar plan to women can reduce the severity of the disease and the extent to which the lingering effects impact the disease, thereby enabling them to deal with these issues over the long term. Tsang's study is useful, because it highlights the kinds of support that women are receiving from the health care system (which will encourage them to seek possible treatment options). This gives both Hispanic and non-Hispanic menopausal women an advantage in understanding how they can cope with CVD and enables them to have a better overall quality of life than other segments of the population (Tsang, 2000).

Dennis (2007) found that post-menopausal women have a number of physical health challenges. This is partially because the changes from menopause cause shifts in their hormonal levels. Once this occurs, many women often go through a period of extreme mood swings and need emotional support. Those who do not receive any kind of encouragement often fall into bouts of depression (Dennis, 2007). In many cases, the changes in their hormones and the depression will cause them to experience severe amounts of weight gain and engage in unhealthy complications lifestyles associated with CVD. To prevent this from occurring, developing a comprehensive plan that will reach out and support women who are experiencing menopause and the way that it is impacting their lives is necessary. This will enable women to feel more empowered and respected among their friends, families, and health care professionals. The information from this source is useful, because it shows how emotional support has a positive impact on

Hispanic and non-Hispanic women. This is when they will see an improvement in their overall quality of life and their underlying health conditions (Dennis, 2007).

Williams (2008) investigated how menopause influences the physical well-being of women. Menopause causes women's bodies to undergo severe changes, and the most notable changes include heart flashes, night sweats, and extreme hormonal changes. Williams (2008) determined that these influences affected women to view their situation in life and the way they feel about themselves as an individual. This leads to changes in their underlying levels of health. Consequently, Williams (2008) found that it is during the menopausal and postmenopausal stages that caregivers need to be sensitive to how menopause impacts women. The information from this source is useful because it highlights how doctors and nurses play a primary role in providing emotional support to Hispanic and non-Hispanic women. This corroborates the findings of other studies that emphasize the need for health care professionals to take the lead in enabling menopausal women and their family members to understand what is happening and how they can adapt to the situation (Williams, 2008).

Im (2008) discussed how the lifestyle choices of Hispanic and non-Hispanic women can have an impact on how they deal with menopause. This is because menopause influences their underlying levels of health and their self-worth. At the same time, those individuals who are busy will often have increased amounts of stress and have poor diet (Im, 2008). This can compound the problem for women during menopause, because their bodies are undergoing hormonal shifts. Women who fail to recognize what is happening, by trying to ignore what is occurring or attributing their issues to the stress,

can make their underlying situation worse. This aggravates the chances of a woman suffering from CVD. This could also define the point when they begin to gain tremendous amounts of weight and experience a decline in their physical health. To deal with these issues, Im (2008) posited that doctors and nurses play a central role in explaining to menopausal women the changes that are experiencing. At the same time, there is the possibility that health care professionals need to reach out to women who may attempt to ignore the various symptoms. These elements are important, because they show how Hispanic and non-Hispanic women who are busy often ignore the key signs of menopause and how it can lead to CVD among them. Therefore, this information is useful because it illustrates how health care professionals are supporting both these groups of women by enabling them to understand what is happening and how they can adapt to the various challenges that they are facing (Im, 2008).

Fleury (2000) investigated how CVD and menopause can have an impact on women, and how socioeconomic status influences and education influences their self-image and underlying levels of stress. The level of education will play a role in determining how informed they are about these particular health issues. Fleury (2000) indicated that those women who are from poorer social and economic backgrounds have less support in dealing with these challenges, because the levels of stress experienced by them is higher and their family support is often limited. This is problematic because these two factors imply that most women who fall into this category will not be able to understand the health risks faced by them and will disregard key warning signs. Over the

course of time, this can impact their physical wellbeing and increase their chances of suffering from some kind of stroke or heart attack (Fleury, 2000).

However, women who are more educated and come from wealthier backgrounds are more likely to seek out treatment options early because they have a consistent routine of conducting regular physicals and receiving regular information from their doctors about their condition (Fleury, 2000). This enables this group to receive more support and be able to deal with the issues of CVD. These elements are important, because they show how economics and social status influence the underlying health status of women. Fleury (2000) highlighted on how social and economic status of both Hispanic and non-Hispanic menopausal women affect them. Those who are more educated and come from wealthier backgrounds are able to deal with these challenges more effectively, while women from poor backgrounds will often experience greater amounts of stress and a lack of support, often worsening their underlying health conditions (Fleury, 2000).

Diet/Exercise and the Perception of Success

According to a study conducted by Janevic et al. (2010), regular physical activities are necessary because they assist in alleviating the impacts of most CVD. The study proposed that exercise reduces incidence of subsequent cardiac events and cardiac-related mortality, and enhances the quality of life through symptom reduction and improved physical functioning among those affected by cardiac diseases. This study further indicated that most communities and community-based organizations should encourage physical activity among citizens. They can achieve this by conducting self-management programs targeting both patients suffering from CVD and other individuals

do not suffer from CVD. However, this research also shows that women with heart disease are likely to benefit more from increased exercise activities than most men (Janevic et al., 2010). Despite the fact that exercising is beneficial to patients suffering from CVD, Deaton (2000) showed that women are less likely to attend cardiac rehabilitation programs than are men, and even when they do, they exercise less than their male counterparts and have difficulty maintaining increased activity levels. The other factor that may discourage women from participating in exercises is social stereotyping; traditional gender norms discourage women from engaging in certain activities. Moreover, most women above the age of 65 years perceive serious medical risk even from exercises; this is likely to increase among women with pre-existing cardiac conditions. On the contrary, even though more than one-third of the women over 65 years have a heart disease diagnosis, a few studies focused on theory-based interventions aiming to promote physical activity within this population (Janevic et al., 2010). The capacity to engage in behavioral self-regulation may be required in order to maintain and initiate a physically active lifestyle because mere theoretical knowledge of the positive effects of diet and exercise is insufficient (Scholz, Knoll, Sniehotta, & Schwarzer, 2006). Developing a model of self-regulation for chronic diseases control is a useful framework for informing interventions to enable older women with heart diseases or other chronic conditions to learn a process for enhancing physical activity-related behavior (Janevic et al., 2010).

According to Toobert, Strycker, Glasgow, Barrera, and Bagdade (2012), CHD is the leading cause of morbidity among women in the United States. In addition, the most

affected people are women with diabetes and those in their postmenstrual periods.

Toobet et al. (2012) agreed that mortality rates are higher in women suffering from type-2 diabetes than in non-diabetic women but suffering from CHD. Toobert et al. (2012) outlined the factors that directly lead to an increase in heart diseases among women. These factors include high-fat diets, smoking, sedentary lifestyles, and social isolation. Therefore, behavioral changes such as reduced fat intake, smoking cessation, increased physical activity, stress management, and social support are vital for individuals suffering from CHD (Toobert et al., 2012). Reducing dependence on smoking and ensuring a healthy diet can assist in promoting healthy lifestyles and reducing CHD risks among women. Although there is strong research linking social support and CHD risk, few interventions enhance social support in women at risk for CHD (Toolbert et al., 2012). Several facets of social support are pertinent to the understanding of lifestyle changes in women including the ability to engage successfully in healthy lifestyle practices and the link between social support and CHD risk factors.

Bowmen (2006) discussed how exercise has an impact on women who are suffering from CVD and women who are menopausal/postmenopausal. Exercise is a key factor for enabling such women to cope with the physical and emotional changes that they experience, because it has the ability to lower their blood pressure, improve their outlook on life, and enable them to be able to connect with others who are experiencing similar situations. This is important, because women who follow this kind of lifestyle are able to garner more support (which will improve the underlying levels of health). Over the course of time, exercising enables women to remain involved in social activities and

to feel a greater sense of empowerment, thereby mitigating the effects of menopause and CVD (Bowmen, 2006). The information from this source is useful, because it illustrates how a number of issues that have an impact on the perception of one's situation and how they are able to cope with that situation. For Hispanic and non-Hispanic women, Bowman (2006) illustrated how lifestyle choices enable them to find new avenues of support that may not be available in other areas. This enables them to change their mindset and improve their ability to interact with the world around them (Bowman, 2006).

Clearly, emotional support can have an impact on both Hispanic and non-Hispanic women who are menopausal/postmenopausal and are suffering from CVD. This is because all the sources illustrate how menopause creates changes in a woman's body. Those women who have some kind of emotional support are able to cope with these issues effectively, because emotional support has a positive impact on their state of mind, thereby mitigating the severity of the effects of menopause. Furthermore, such women also engage in social activities and maintain a healthy lifestyle, resulting in an overall improvement in their health.

CVD Management among Women

Juarbe (1998) summarized a considerable amount of literature on CVD among Latina women. This study reviewed information on the mortality rate and important risk factors such as hypertension, cigarette smoking, elevated serum lipids, obesity, diabetes mellitus, and lack of physical activity. Juarbe (1998) also presented the concerns that have a connection to the sociocultural atmosphere of Latino women. The conclusion of

the study provided the associations for clinical practice and further nursing study. The data that was provided in this study can assist nurse clinicians, educators, and researchers to “design how nursing interventions that can ensure the health of the heart and avoid CVD in Latino women” (Juarbe, 1998, p. 108-116).

Regarding Latino women, Juarbe (1998) showed a lower life expectancy and a higher age-regulated death rate than Caucasian women and men, Mosca et al. (1997) found a decrease in the mortality rates related to CVD among Latino women over time. Particularly, a decrease in the mortality rates related to ischemic heart disease is commonly present among Latino women in New Mexico from 1949 to 1992. The mortality rates for Latino women reported in Juarbe (1998) were much lower than those for Hispanic men and for Caucasian women and men from 1963 to 1968.

Other researchers have indicated that the mortality rates of Latino women are the same or lesser than those of Caucasian women. The age-adjusted mortality rates for women with heart diseases who are born in Puerto Rico are much higher than those for Mexican- and Cuban-born women (Juarbe, 1998). Furthermore, women who have a Mexican background, particularly Puerto-Rican and Cuban women have the highest occurrence of stroke-related deaths.

Juarbe (1998) indicated that other reports discuss the mortality results related to acute myocardial infarction (MI). He shows that the total mortality rate for Latino women (ethnicity unidentified) was lesser (6%) than that for Caucasian women (15.9%) and for African American women (12.7%). Juarbe’s conclusion provided recommendations for clinical practice and further study. The data that was in this study

can assist to promote nursing interventions that can prevent heart diseases. In a current examination, Juarbe, Lipson, and Tirok (2003) stated that the rate of mortality attributed to CVD among Latino women has reduced and were considerably lesser than the mortality rates owing to CVD among Caucasian women (Kannel et al., 1976).

Juarbe et al. (2003) noted that there is a lack of reliable information concerning the CVD mortality report for the subgroups of Latino women. Many studies have failed to explain the subgroups of Latino women, and considerable differences are evident in the research approaches used to assess mortality rates, which included retrospective chart reviews; analysis of local, state, and national death registries; and prospective cohort studies. Early studies showed an increase in CVD mortality rates for Latino women between 1940 and 1960, and these mortality rates significantly decreased after the 1970s (Juarbe et al., 2003).

In his study, Elyer et al. (2002) mentioned that hypertension is a key risk factor for CVD in women. In addition, they indicated that hypertension triggers strokes among Hispanic women and is the third most common cause of death and incapacity among adult Latinos in Mexico and South America. Phelps (2011) stated that although Latina women in America have a higher hypertension mortality rate than that of Caucasian women, their rate are lower than that of Latino men. Throughout the 1980s, studies hypothesized that the occurrence of hypertension was higher among Latino women than that among Caucasian women; this hypothesis came from the high prevalence of overweight and obese Latino women (Rosdhal, 2008). Various studies that primarily considered Mexican women, described that the systolic and diastolic blood pressures and

occurrence of hypertension among Mexican women is lesser than or comparable to Caucasian women. Stampfer (1991) showed that one of these studies discovered that the occurrence of hypertension among Latino women was similar to that among Caucasians. Another of these studies for Mexican women found that the prevalence of hypertension declines as the socioeconomic position increases.

Stampfer (1991) noted that the average diastolic and systolic blood pressure of Mexican women is similar or lower than that of Caucasian women and the extent of hypertension among Mexican women is lesser than that among Caucasian women (ages 35–75). These discoveries are applicable for Mexican women even with respect to education, and body mass index (BMI) (Wang & Crespi, 2011). Additionally, other studies have reported that as compared to Hispanic men, Mexican women with hypertension exhibit better discipline with regard to taking medicines and keeping their blood pressure in control. Stampfer's (1991) study also included the subgroups of Latino women, and their sample ages and sizes in the five key studies that investigated Latinos from 1972 to 1987.

The San Antonio Heart Study and the San Luis Valley Diabetes Study (SLVDS) are two studies in Colorado. In this study, they described that the mean diastolic and systolic blood pressure for Latino women was higher than that for Caucasian women (Wang & Crespi, 2011). The researchers who conducted San Antonio Heart Study discovered that although the sample of Mexican women had a comparable occurrence of hypertension, their diastolic and systolic blood pressures were meaningfully higher when compared with the sample of Caucasian women (Wang & Crespi, 2011). The systolic

and diastolic blood pressures of Latino women (seemingly Mexican) in the SLVDS were also higher than those of the Caucasian women studied (Wang & Crespi, 2011).

The Hispanic Health and Nutrition Examination Survey (HHANES, 1996) reported a higher prevalence of hypertension among Cuban (14.3%) than amongst Mexican (13.5%) and Puerto Rican women (10.3%). Individual contrasts by age displayed that as age increased, the occurrence of hypertension intensified, particularly in women who were over 45 years old. Among the Latino subgroups, in which women were aged between 45 to 74 years, the occurrence of hypertension was highest for Puerto Rican and Mexican women. The HHANES reported that the occurrence of hypertension among the Puerto Rican women aged between 55 to 64 years was higher than that among the Mexican and Cuban women for the same age group. As compared to Caucasian women, the Latino group had significantly lesser degrees of hypertension. The pervasiveness of hypertension among Latino males included in the HHANES was much greater than among the Latino women (HHANES, 1996).

According to Eyler et al. (2002), the presentation of heart disease in women and men included a number of suggestions for women that were different from those for men; the existing diagnostic studies and measures for heart disease are from studies for men. There are considerable dissimilarities in the cardiovascular systems of women and men; therefore, women experience less warning signs like angina than men (O'Connor, 2005).

Previous studies have shown numerous differences in the characteristics of heart failure between men and women in terms of risk issues, pathophysiology, clinical displays, and responses to treatment (O'Connor, 2005). Women are less likely to

complain about chest pain and usually complain of pain in the back, neck, chin, and stomach; women are more likely to report higher levels of pain with warning signs such as dyspnea, faintness, tremors, and shudders (Phelps, 2011). Women usually suffer from heart disease at a later stage in life and exhibit different symptoms than men when experiencing their first coronary event. It is more difficult to categorize accurate indications of heart diseases in women, which can complicate the diagnosis (Phelps, 2011). Women also commonly suffer from anterior myocardial infarction (MI), including stomach pain and dyspnea, more often than men (Rosenfeld, 2006).

There are many different risks for women in the typecasting of cardiovascular illness as “male.” Health care specialists do not always identify or may dismiss the initial indications of heart diseases in women, and women do not necessarily think they are at risk of getting a heart disease (Tsang, 2000). It is important to inform women about heart diseases, because it appears that they are more susceptible than men are to experiencing nonconforming indications such as back pain or breast cancer, which have a connection to coronary event. Tsang (2000) emphasized that women need to be informed that it is not men alone who suffer from heart diseases; women are at an equal risk of acquiring heart diseases.

Other studies have shown that women are usually more likely to experience epigastria and pain in the back, stomach pain, palpitations, and quickness of breath (Williams, 2008). These warning sign can mislead as musculoskeletal or gastrointestinal in source, and this can delay the diagnosis of heart diseases (Williams, 2008). Williams (2008) believed that it is necessary to recognize the unusual nature of portraying

symptoms in women to educate and inform women about heart disease and to enable them to seek early diagnosis. He states that health care organizations also need to improve their diagnosis for women who have been complaining of uncharacteristic symptoms and link it to the possibility of heart disease or heart failure.

Usually, the forthcoming outcomes of women are poorer than that of men following a heart event, as they are usually a little older and normally experience a range of other co-present health issues such as diabetes, arthritis, and peptic ulcers. This combination of factors has a major influence on their overall health and wellbeing to address their medical concerns. Some women experience overwhelming fear and concern as a result of being unable to preserve their earlier way of life after suffering from heart disease and worry about who will take care of their households and families if something were to happen to them.

Theoretical Framework

The theoretical framework used in this study was stress and coping social support theory (Barrera, 1985). Social support theory, which is the baseline theory behind stress and coping social support theory, is the theory that provides an emotional background to support. Friends, family, coworkers, and other groups are the main source of support according to this theory (Barrera, 1985). The purpose of stress and coping social support theory is to better understand how individuals, such as women undergoing menopause, can potentially receive support needed to best manage their CVD.

Shorey and Lakey (2011) conducted a study on social support theory focusing on stress and coping. The authors indicated that support protects participants from bad

events, or the perception of bad events. Social support theory's extension to stress and coping are appropriate when dealing with disease and health (Shorey & Lakey, 2011). The authors tested a new theory that hypothesized that the main effects between perceived support and health have a direct relationship with stress and coping and have a basis on the consequential conversations and shared activities, some of which include positive events. As a result, Shorey and Lakey (2011) noted the need for correlation of perceived support. Perceived support should further have similar associations to other constructs, and the links to positive affect should overlay with respect to stress and coping when dealing with adverse health consequences (Shorey & Lakey, 2011).

Summary

Emotional support can have an impact on menopausal/postmenopausal Hispanic and non-Hispanic women who are suffering from CVD. The literature illustrates how menopause causes changes in a woman's body, and that a support system can help women in effectively cope with these issues. These supported women experience less severe effects, which has a positive impact on their state of mind. As state of mind improves, these women are again more effective in coping with these issues. These women tend to engage in activities that help their levels of health to improve; concurrently, they tend not be engaged in lifestyle choices, which can negatively affect health in regards to CVD.

Emotional encouragement can come from a variety of places. A few of the most common groups to offer support includes friends, family, coworkers, health care professionals, and people who are going through similar circumstances. Effective

interaction of these women has a greater sense of purpose, which in turn improves health and wellbeing levels. The present study aimed to further explore this line of reasoning by investigating how the kinds of support they receive from different groups affect both Hispanic and non-Hispanic women.

There are a number of sources of emotional encouragement such as from friends, family, coworkers, health care professionals, and people experiencing the same situations. Effective interaction among women with a combination of these elements can lead them to develop a greater sense of purpose, which will improve their overall health levels. Therefore, this research indicates that both Hispanic and non-Hispanic women are positively influenced by the kind of support that they receive from these different groups.

Chapter 3: Research Method

The purpose of this study was to examine the relationships between attitudes, social support, and the perception of success in managing CVD among Hispanic and non-Hispanic menopausal women. The primary focus of this investigation was to determine whether perception of success is predictive of attitudes toward emotional support (nuclear family, friends, medical professional, and diet and exercise) as measured by questionnaire and demographic data. This chapter includes five primary areas: (a) research design, (b) population and sampling procedures, (c) instrumentation, (d) data collection, and (e) data analysis.

Research Questions and Hypotheses

The research questions were designed to explore how emotional support provided by care providers, family members and significant others and persons in support networks have helped patients in the management of CVD. The research questions and hypotheses were as follows:

RQ1: What is the relationship between social and emotional support and perception of success in managing CVD in postmenopausal women between the ages of 55-84?

H1_N: There is no statistically significant relationship between social and emotional support and perception of success in managing CVD in postmenopausal women between the ages of 55-84.

H1_A: There is a statistically significant relationship between social and emotional support and perception of success in managing CVD in postmenopausal women between the ages of 55-84.

- DV: Perception of success in managing CVD
- IV: emotional support
- Statistical Technique: Multiple Linear Regression

RQ2: What is the relationship between social and emotional support and perception of success in managing CVD in postmenopausal women between the ages of 55-84 after introducing the moderator of ethnicity?

H2_N: There is no statistically significant relationship between social and emotional support and perception of success in managing CVD in postmenopausal women between the ages of 55-84 after introducing the moderator of ethnicity.

H2_A: There is a statistically significant relationship between social and emotional support and perception of success in managing CVD in postmenopausal women between the ages of 55-84 after introducing the moderator of ethnicity.

- DV: Perception of success in managing CVD
- IV: emotional support
- Moderator: Ethnicity (non-Hispanic, Hispanic)
- Statistical Technique: Moderated Multiple Regression

RQ3: What is the relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in postmenopausal women?

H3_N: There is no statistically significant relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in postmenopausal women.

H3_A: There is a statistically significant relationship between diet and exercise from the perspective of the participants and the perception of success in the management of CVD in postmenopausal women.

- DV: Perception of success in managing CVD
- IV: diet and exercise
- Statistical Technique: Regression

RQ4: What is the relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in postmenopausal women after controlling for social and emotional support?

H4_N: There is no statistically significant relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in postmenopausal women after controlling for social and emotional support.

H4_A: There is a statistically significant relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in postmenopausal women after controlling for social and emotional support.

- DV: Perception of success in managing CVD

- IV: diet and exercise
- Moderator: Emotional support
- Statistical Technique: Moderated Multiple Regression

Table 1 provides a structured view of the four research questions and related methodological components. The table included two predictor variables, a single criterion variable, a moderator, and the statistical analyses planned to test each hypothesis. Although these components are a part of the discussion here in brief, later parts of this chapter include the details.

Table 1

Hypotheses with Related Methodological Components

Hyp	Predictor Variable	Criterion Variable	Moderator	Statistical Technique
<i>H1</i>	Emotional support	Perception of success in managing CVD	NA	Multiple Regression
<i>H2</i>	Emotional support	Perception of success in managing CVD	Type of ethnicity (non-Hispanic, Hispanic)	Moderated Multiple Regression
<i>H3</i>	Diet and Exercise	Perception of success in managing CVD	N/A	Regression
<i>H4</i>	Diet and Exercise	Perception of success in managing CVD	Type of ethnicity (non-Hispanic, Hispanic)	Moderated Multiple Regression

Figure 1 shows the moderated and immoderate relationships among the variables.

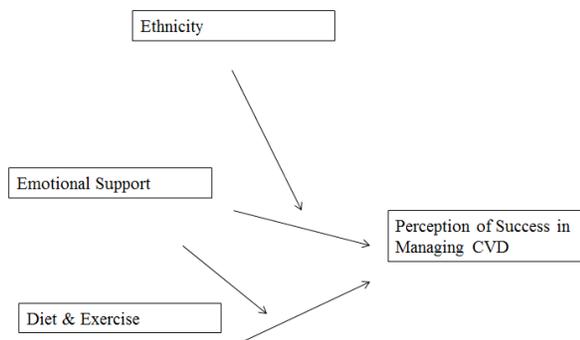


Figure 1. Structural equation model.

Research Design

A quantitative, correlation research design employing survey methodology was used as a framework to test the hypotheses. Correlation research studies measure the relationship or association between two variables (Alreck & Settle, 2004). There are three possible outcomes of a correlation study including a positive correlation, a negative correlation, and no correlation. Correlational studies only suggest a relationship between variables exist. This means that the technique cannot prove that one variable causes another variable to change (Creswell, 2009). Quantitative designs support theory and are considered to be a deductive reasoning technique while qualitative studies are inductive by nature. Deductive reasoning arrives at a specific conclusion based on generalizations while inductive reasoning takes events and makes generalizations (Sternberg, 2009). Given that the hypothesis was from theory, a deductive or quantitative approach was appropriate for this study.

Population, Sample and Sampling Methodology

Population

The population for the study consisted of females in menopause (between the ages of 55 and 84 years old).

Inclusion. The study includes non-Hispanic and Hispanic menopausal women with history of CVD as defined in the introduction. These women had to be between the ages of 55 and 84 years. Socioeconomic status of females was not a condition of inclusion.

Exclusion. Excluded from the study were women under the age of 55 and above the age of 84 years. Those with mental retardation and severe psychiatric illness were not included. In addition, women who did not have CVD are not a part of this study.

Sample

The sample consisted of 335 non-Hispanic and Hispanic women who have developed CVD during menopause in Atlanta, Georgia. I assumed that the demographic characteristic of women would represent the population. To test this, descriptive statistics (mean, standard deviation, median, and mode) were calculated and compared to the overall known and estimated population statistics. To limit the scope of the research and reduce impact from confounding variables, only women between 55 and 84 years were included. All women willing to participate in the study were encouraged to complete the survey provided they meet the necessary inclusion criteria.

Sampling Methodology

I used a convenience or purposeful sampling technique to sample participants from the population. There are several different types of purposeful sampling to include typical, unique, maximum variation, convenience, snowball, chain, and network.

Convenience sampling encompasses the person that is readily available to be researched. Specifically, Merriam (1998) asserted that this type of sampling technique is appropriate due to restrictions of “time, money, location, and availability of sites or respondents” (p. 63).

The data collected in convenience sampling is representative of the population being researched. According to StatPac (2007), convenience sampling is used “during preliminary research efforts to get a gross estimate of results, without incurring the cost or time required to select a random sample” (p. 1). This sampling method allowed the researcher to effectively collect data for the study considering the time constraint. Keppel and Zedeck (2001) recognized that the method of convenience sampling may not provide general representation of the target population because the sample is limited to the population of this study, thus sacrificing generalizability.

Despite the deficiencies of convenience sampling, Neuman (2003) says that it is the best method of locating a sample population when random sampling is not reasonable due to time constraints. In convenience sampling, I will be able to attain an approximation of truth.

Power Analysis

Sample size was determined using the power table provided by Aguinis (2004) for a variety of slope differences for moderated multiple regression. For medium differences in regression slopes between two groups, a total sample size of 343 assuming similar variance across the groups. This calculation was performed using G*Power and assuming moderate differences in slope (0.15), a significance level of 95%, and the minimum power of 80% (Faul, Erdfelder, Buchner & Lang, 2009). The necessary sample size to detect smaller differences in regression slopes is between 320 and 400 (Aguinis, 2004, p. 114). Ideally the sample sizes for the groups should be equal. Hispanic and non-Hispanic were included in the regression analysis, which does not require the weighting of the sample to be representative of the population as the control variable.

Operationalization of Variables

The theoretical model had three variables including one predictor variable, a criterion variable, and a moderating variable. The predictor variable is attitudes toward emotional support, which the Interpersonal Support Evaluation List (ISEL) measured (Cohen & Hoberman, 1983). The criterion variable was perception of success in managing CVD, which the ISEL measured, while the moderating variable is ethnicity, which OSI measures.

Social Network Support

Social support, as measured by ISEL, refers to the various types of support (i.e., assistance/help) that people receive from others and generally belongs under four major categories: tangible, belonging, self-esteem, and appraisal support. This study includes

the consideration of these four major categories. A 40-item scale made up of four sub scales (sub scales are the four major categories) each item are answerable using a 4-point Likert-type scale. The scale is as follows: 0 – *Definitely False*, 1 – *Probably False*, 2 – *Probably True*, and 3 – *Definitely True*. As evidenced by the scale, no escape option is available.

Perception of Success in Managing CVD

Managing CVD is the maintenance of well-being through changes to diet and exercise. Data for the variable were from a single question. This variable was scaled at the interval level where a 6-point Likert-type scale that ranges from low to high, with 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, and 5 = *agree*, and 6 = *strongly agree* was used. As evidenced by the scale, no escape option is available.

Ethnicity Type

Ethnicity is a group of people that identifies with others through a common heritage, consisting of a common culture (Juarbe et al., 2003). The two groups observed in this research study are non-Hispanic and Hispanic. Data for the ethnicity variable come from a single question on the demographic survey. This variable used the nominal scaling level.

Diet and Exercise

Diet refers to balancing foods and drinks consumed to provide the human body with adequate energy and nutrients for growth and development (Hagen, 2011). According to the World Health Organization (n.d.), exercise is the “planned, structured,

repetitive, and purposeful in the sense that the improvement or maintenance of one or more components of physical fitness is the objective.” Exercise may include cardiovascular endurance, muscular strength, muscular endurance, flexibility and body composition (Hagen, 2011).

Instrumentation

The study includes two instruments, specifically ISEL Questionnaire and a demographic survey. The Original Survey Instrument (Appendix A) is a 5-item instrument that takes less than five minutes to complete. From this instrument, the diet and CVD management questions were from.

Interpersonal Support

The ISEL aided in assessing the degree of social support that is available and used by the participant (Cohen & Hoberman, 1983; Cohen, Mermelstein, Kamarack, & Hoberman, 1985). It consists of 40 questions answerable using a 4-point Likert- scale. The average of the 40 responses is the final score of the questionnaire. Dr. Sheldon Cohen is Professor at Carnegie Mellon University in Pittsburgh, Pennsylvania who emphasizes the roles of stress and social support in health quality life. He has issued revolutionary hypothetical and pragmatic academic work as books and publications highlighting the impact of stress and social network in physical and mental health. He gave permission to use the ISEL as the instrument in this study.

Validity and reliability. Cohen et al. (1985) tested the construct validity and reliability of the ISEL. This instrument measures social support. The ISEL assesses how deeply the participant uses his or her social support. For scoring methods, the purpose of

the instrument is to determine the overall social support available to the participant. The ISEL have a statistically significant relationship with health and low mortality (Cohen et al., 1985). The authors found that the reliability of the ISEL was between 0.77 and 0.84 across the tested samples. I tested the construct validity of the ISEL against personality where the measure has a connection to low psychological distress, high degrees of extroversion, positive affect and positive health practices (Cohen et al., 1985).

Pilot study. A pilot study of 10 menopausal women with CVD measured the ease of use of the demographic sheet. Each of the 10 participants completed the OSI. The data analysis included assessing whether I was able to obtain the necessary information from each of the participants. Since the OSI is a straightforward questionnaire, participants would be easily able to answer the questions and provide the necessary data. The OSI is a 5-item instrument that takes less than five minutes to complete. It has a design that allows for data collection on inclusionary criteria, ability to manage ones CVD, and ability to exercise and eat healthy. Two questions were about defining the sample including ethnicity and age. This study only included women. Respondents also had to answer two questions about whether they underwent CVD screening and had a positive diagnosis for CVD. The final questions measured how successfully the participants managed their CVD.

Data Collection

Data were collected from samples in Hispanic and non-Hispanic communities. I attended a number of Roman Catholic churches in Atlanta, Georgia serving Hispanics and non-Hispanics. The location may offer an environment where groups can feel

emotionally secure about providing health information (Cavahos-Rehg et al., 2007, p. 1126). For this reason, I approached a number of local Roman Catholic churches to query parishioners following Sunday services. Potential and eligible participants who reported that they have been screened or have been diagnosed for CVD received information regarding purpose of the study, the process of the study, and exactly what their participation entailed. Participants who reported agreeing to participate in the study answered both the ISEL questionnaire and demographic survey. These surveys were available in both English and Spanish. If at any point in the study, participants felt uncomfortable, they were not obligated to continue in the study.

Priests and administrators from these communities received general information about the research, and they were able to decide whether or not to have their parishioners to participate. I contacted two Catholic churches in Atlanta, and they agreed to participate. The participants gave their Informed Consent, stating that they understood that they could withdraw from the study at any time without penalty. Surveys packets contained the general information and the questionnaire. Questionnaire distribution to the participants occurred in the choir room where tables and chairs are set up. I placed all demographic data and questionnaires in a locked filing cabinet office accessible to myself alone. Five years later after completion of the study, I will destroy all records. At the onset of administration, I read the directions for each form to the participants, and the time frame to complete these questionnaires. I gathered and distributed all data for four consecutive weeks. After completing the questionnaires, I thanked the participants for their participation.

Data Analysis

For the moderated research questions, moderated multiple regression analysis was used. Multiple regression analysis examines the relationship between multiple predictor variables and a criterion variable. Multiple regression is a more sophisticated approach of analysis when compared to bivariate correlation (Keith, 2006). The aim of a moderated multiple linear regression is to determine whether a statistically significant relationship remained after including the moderating variable (and if the relationship between independent and dependent variables remains or is altered by the moderating variable). The predictor variable (IV) for the hypothesis was emotional support. The criterion variable (DV) for the hypothesis was perception of success in managing CVD. Each regression model contained a DV, IV, and moderator.

The moderation variable for the hypothesis was ethnic type, which refers to people of the same nationality sharing a distinctive culture (non-Hispanic, Hispanic). A moderation variable is used to assess whether there is an interaction between the IV and moderator variable on the DV (Keith, 2006). Thus, the test assessed whether ethnic type (non-Hispanic, Hispanic) interacted in its effect on perception of success in managing CVD among these two population groups.

For the non-moderated research questions, I used a regression analysis. Regression analysis is a statistical method used to study the relationship between a single criterion variable, and one predictor variable. The single criterion variable was perception of success in managing CVD and the predictor variables were diet and

exercise. I used the Statistical Package for the Social Sciences (SPSS) software program, Student Version 20.0 to facilitate the analysis.

Three discrete sections in Chapter 4 contain the results. These sections include the demographic, detail of analyses, and summary of results sections. The demographic section included a profile of participants responding to the survey. The detail of analysis section included a complete breakdown of the analysis, evaluation of appropriate assumptions and final inferential results. The summary of results section includes a recap of the study, study design, results by hypothesis and what the reader could find in Chapter 5. This data analysis included descriptive statistics, means, standard deviation, and frequency where applicable. In addition, discussion includes histograms as well as z -scores and plots to support assumptions of normality if necessary. Further, a regression table, and supporting figures showed a relationship or significant effect. For this analysis, alpha was set at $p = .05$ provided meeting assumptions of normality. If these assumptions do not hold true, I would determine the appropriate next steps.

Ethical Considerations

Ethical considerations include the participant's right to anonymity. I did not use any identifying information; instead, I used participant identification numbers only. I also kept all medical and personal information confidential. I was the only person who had access to the data and all hard copy surveys that were under lock and key. Data entered in the computer will be stored in password protected files and only I will have access to the data. The risk level to participants was minimal. The only risks were those associated with non-invasive survey research designs. Further, each participant's results

were not identifiable other than by participant identification number. Should a participant have wanted to withdraw from the study, the participant could contact me and request to have his or her data withdrawn and all contact ceased.

Limitations

The results of this study are constrained by a number of limitations. It is important to note that though the results of this study may apply to the sample used for the study, the results may not generalize to all menopausal women. The sample came from church communities in the Atlanta, Georgia area, and therefore is not fully representative of the entire population. Additionally, unknown variables that affected the results may have influenced the results of this study. Whether this was the case or not is not verifiable.

Response bias is another potential limitation of the study. The participant responses in their accuracy and honesty limit the survey results. Respondents may be more likely to provide responses they feel to be socially acceptable or desired by researcher. Despite the potential for this limitation to be present, the nature of this study made self-report data the most appropriate option.

Summary

This chapter provided a detailed discussion of this quantitative study of emotional support, support networks, and the management of CVD among Hispanic and non-Hispanic women. This chapter described the design of the study, the strategies for data collection and analysis, and the ethical considerations that protected the human subjects in this study.

Chapter 4 provides a detailed discussion of the data collected, the data analysis procedures, and the results of the study. Chapter 5 contains a discussion and interpretation of the findings. Chapter 5 also includes recommendations for future research, and implications.

Chapter 4: Findings and Data Analysis

The purpose of this study was to examine the impact of emotional support in managing CVD in Hispanic and non-Hispanic menopausal women aged 55 and older. Emotional support was the IV and the perception of success in managing CVD was examined as the DV. In line with the purpose of the study, four research questions and corresponding hypotheses determine the impact of emotional support provided by the participants' social network, family members, and friends. Moreover, the data helped establish how diet and exercise have helped female patients manage their CVD. The criterion variable for H1–H4 was the perception of success in managing CVD in postmenopausal women between the ages of 55 and 84. The predictor variables for H1 were attitudes toward emotional support. The moderator was ethnicity (non-Hispanic vs. Hispanic), while the predictor variables for H4 were diet and exercise. The research questions and hypotheses for this study were as follows:

RQ1: What is the relationship between social and emotional support and perception of success in the management of CVD among women in postmenopausal stage between the ages of 55 and 84?

H1_N: There is no statistically significant relationship between social and emotional support and perception of success in managing CVD among women in post-menopausal stage between the ages of 55 and 84.

H1_A: There is a statistically significant relationship between social and emotional support and perception of success in managing CVD among women in post-menopausal stage between the ages of 55 and 84.

RQ2: What is the relationship between social and emotional support and perception of success in managing CVD among women in postmenopausal stage between the ages of 55 and 84 after introducing the moderator of ethnicity?

H2_N: There is no statistically significant relationship between social and emotional support and perception of success in managing CVD among women in postmenopausal stage between the ages of 55 and 84 after introducing the moderator of ethnicity.

H2_A: There is a statistically significant relationship between social and emotional support and perception of success in managing CVD among women in postmenopausal stage between the ages of 55 and 84 after introducing the moderator of ethnicity.

RQ3: What is the relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD among women in postmenopausal stage?

H3_N: There is no statistically significant relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD among women in post-menopausal stage.

H3_A: There is a statistically significant relationship between diet and exercise from the perspective of the participants and the perception of success in managing among women in postmenopausal stage.

RQ4: What is the relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD among women in postmenopausal stage after controlling for social and emotional support?

H4_N: There is no statistically significant relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD among women in postmenopausal stage after controlling for social and emotional support.

H4_A: There is a statistically significant relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD among women in postmenopausal stage after controlling for social and emotional support.

This chapter includes the findings from the data analysis conducted to resolve these research questions and hypotheses. The chapter also includes a description of the process of data collection, the characteristics of the participants, and the statistical analyses designed to answer the research questions. Surveys were used to collect data from the participants on the impact of emotional support in managing CVD in Hispanic and non-Hispanic women. I conducted statistical analyses using SPSS v20.0 to answer the research questions. This process focused on different variables and the effects they had on various segments of respondents. The most notable effects included physical activity, diet, perceptions of success, and the levels of emotional support received in the process. These elements are important, as they provide insights into the differences between the two population groups. The findings helped to validate the hypotheses that aimed to determine the lasting impacts of these factors on the physical wellbeing of the two demographic groups.

Data Collection

The sample for this study consisted of 335 Hispanic and non-Hispanic menopausal women volunteer participants living in Atlanta, Georgia. The participants ($N = 335$) identified themselves as either Caucasian ($n = 168$) or Hispanic ($n = 167$). All individuals who participated in the study lived in the same city and were parishioners of Catholic churches. Data collection research was generally representative of the population being studied, providing sufficient representation of the target population. Two priest administrators facilitated recruitment and provided general information about the study. The recruitment process for participants in this study utilized the parishioners at St. Joseph Catholic Church and The Harvest Catholic Church as an avenue to identify participants in the Atlanta area. This approach provided access to participants at local churches by identifying menopausal women with CVD. Upon identifying the menopausal women, I gave a packet to them in the choir room of the churches. Data come from answers to questionnaire measures assessing emotional support, ethnicity, diet, exercise, and perception of success in managing CVD. Demographic information also were also a part of the questionnaire. Participation in this study was voluntary and each participant completed the questionnaire in 5 minutes. Two translators helped Spanish-speaking participants to understand the questions. All participants had assurance of confidentiality and anonymity. I provided them with a one-page introductory statement information sheet, explaining the purpose of the study and the period for administering the questionnaires. I distributed survey packets containing the ISEL questionnaire to the participants. At the onset of administration, I read directions for each form to the

participants, and answered questions as needed. After completing the questionnaire, I thanked the participants for taking part in the study. In total, I handed out 335 questionnaire packets, with a return rate of 100%, without encountering any adverse events during data collection from the participants.

Selection of ISEL was based on its well-tested and generally accepted track record. The ISEL have strong validity and reliability as articles of Delistamati et al. (2006), who tested the relationship between success and social/emotional support among Greek students, have tested. According to Delistamati et al.'s (2006) findings,

The ISEL was found to have very good internal consistency (Cronbach's $\alpha = .897$) and good test-retest reliability (ICC 0.686). The respective correlation coefficients of the sub-scales ranged between 0.452 (Self-esteem) and 0.752 (Appraisal) for internal consistency (Cronbach's α) and between 0.631 (Tangible) and 0.847 (Belonging) for test-retest reliability (ICCs). (p. 556–557) This performance accounts for a similar employment of the ISEL in yielding evidence of correlations between distinct variables in the current research, such as that showing a connection between perception of success and the presence of emotional support.

The participants completed a 6-item general information sheet on which they provided their age and ethnicity group and responded to four questions regarding their CVD. Two of the questions asked whether they had undergone CVD screening and whether they had a positive CVD diagnosis. A third question asked them to rate their ability to manage their CVD, and the fourth question asked them to rate their compliance with a lifestyle of healthy diet and exercise. The third and fourth

questions employed a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

Sample for the Study

The target population for this study was non-Hispanic and Hispanic menopausal women between the ages of 55 and 84 years old. However, the samples in this study were all women from the United States. In particular, these participants resided in Atlanta, Georgia. The sample populations selected for consideration were senior women from two distinct ethnic groups. The consideration of both Hispanic and Caucasian women resulted in the use of two sample groups with well-controlled variables, such as age, general health, and sample size. One-hundred and sixty-eight Caucasian women and 167 Latino women were included in the study, with the former group reporting an average age of 65.5 and the latter an average age of 65.4.

The selected groups may be representative of the general population, though this is not immediately apparent because the groups were selected using a nonrandomized approach. Trochim (2006) established that the purposive strategy of the nonprobability sampling used here may still offer such representative capacity. According to Trochim (2006) “in purposive sampling, we sample with a *purpose* in mind, we usually would have one or more specific predefined groups we are seeking” (p. 1). In this case, the isolation of other variables renders the two selected populations as effectively representative of their specific demographics. Provided applying the same level of care in a broader study to distill these variables, I conclude that the findings related to the

population offer modestly strong external validity. These findings are replicable to a larger sample population.

Descriptive Statistics

Table 2 describes the values of the major study variables for the two demographic groups and for the total sample. The sample for the study included 335 women, roughly equally divided in two groups, one with 168 Caucasian and one with 167 Hispanic women. This sample size was based on the recommended sample size calculate prior to conducting the study, taking into account moderate differences in slope (0.15), a desired minimum power of 80%, and a significance level of 95%. In two of the categories (good diet and exercise, perceptions of success), the Hispanic members of the sample had higher mean scores. Hispanic respondents scored a mean of 4.99 for perceptions of success and 4.90 for diet and exercise. This is higher than the results provided by the Caucasian women in the sample, who scored a mean of 4.47 for perceptions of success and 4.77 for diet and exercise.

In the category of emotional support, Hispanics scored lower. As shown in Table 2, the mean score of the Hispanic subjects in the sample on the emotional support survey was 72.2, while the mean for the Caucasian subjects was 96.0. In general, both groups showed high responses in the categories of perceptions of success and diet and exercise. These numbers had an average score of 4.73 and 4.83, respectively.

Table 2

Values of the Major Study Variables

		Caucasian	Hispanic	Total
N		168	167	335
Age	Mean	65.5	65.4	65.4
	Std. Dev.	6.1	5.3	5.7
Perception of Success	Mean	4.47	4.99	4.73
	Std. Dev.	0.99	1.47	1.28
Good Diet and Exercise	Mean	4.77	4.90	4.83
	Std. Dev.	0.74	1.22	1.00
Emotional Support	Mean	96.0	72.2	84.1
	Std. Dev.	23.4	15.5	23.2

These insights are significant in highlighting how both Caucasians and Hispanics had very poor results in perceptions of success and diet and exercise. The only difference is that Hispanic participants scored slightly higher in these categories, while reporting lower responses, in contrast with the median numbers for emotional support. Figure 2 illustrates the rates of positive responses from participants in the survey.

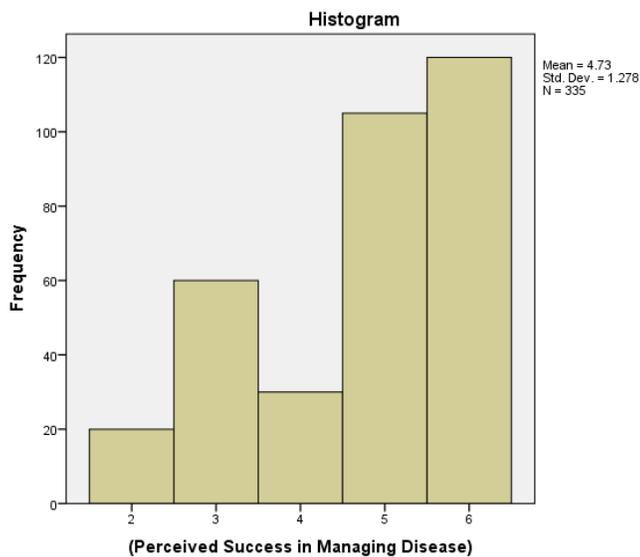


Figure 2. Rates of positive responses.

Figure 2 shows that there are lower levels of success in controlling CVD for both demographics of respondents. However, the older groups were more effective in managing the condition based upon these views.

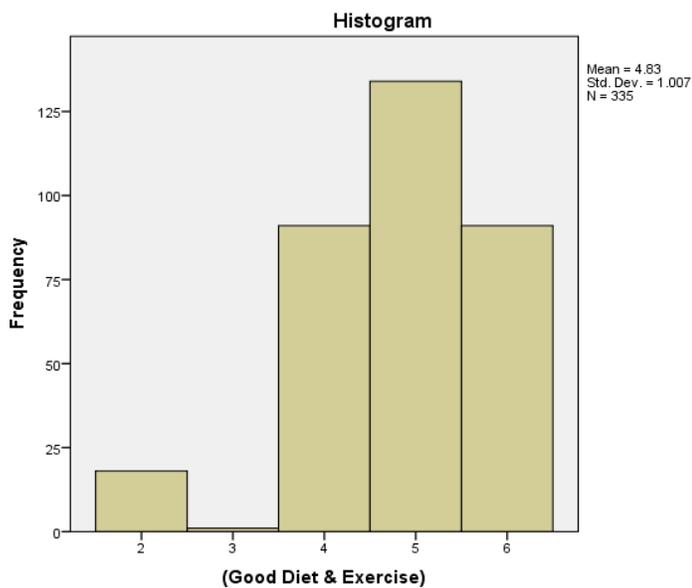


Figure 3. Effect of good diet and exercise.

Figure 3 shows the similar results of the participants in the survey, with most participants reporting reduced amounts of diet and exercise. In the second to oldest category, respondents were more active and they lived healthier lifestyles.

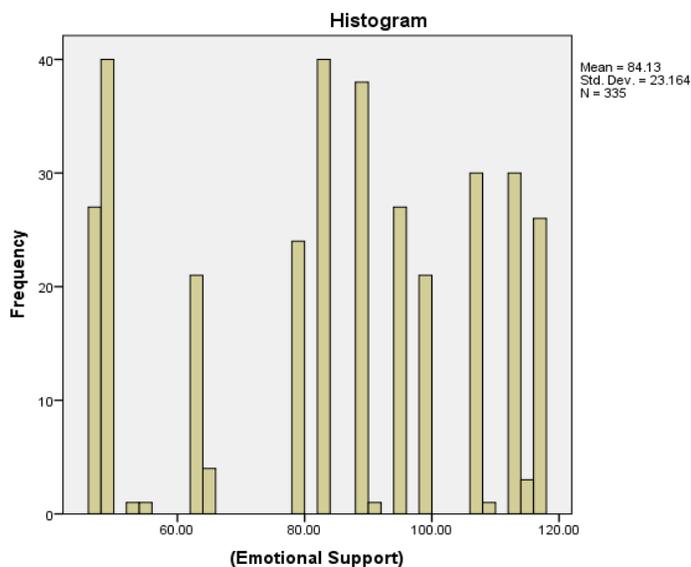


Figure 4. Effect of emotional support.

Figure 4 shows that there were higher levels of emotional support for a majority of the participants. This occurred more so in the lower and middle age demographics of the study.

Data Analysis

The statistical procedures used in this study were correlations, independent-sample t tests, simple linear regression, and multiple linear regression. The assumptions associated with these procedures are specified below, with the application and verification through assumption checking. The results demonstrate that the methods are appropriate for the data.

Pearson's Correlation Coefficient

The assumptions associated with the Pearson correlation are interval or ratio variables, which are approximately normally distributed, have few outliers, and have uniform variation of the data around the line of best fit (homoscedasticity). As shown in Table 3, perceived success in managing CVD was positively correlated with compliance with good diet and exercise ($r = .321, p < .001$) and negatively correlated with emotional support ($r = -.188, p < .001$). This means that people who believe that they are more successful at managing their disease tend to report being better at complying with good diet and exercise. Conversely, subjects who believe that they are more successful with managing their disease report having less emotional support, or subjects who have more emotional support feel less successful with managing their disease. Age is also negatively correlated with emotional support ($r = -.100, p < .05$). This indicates that older participants had lower scores for emotional support, or that older subjects tend to report having less emotional support than younger subjects. Lastly, compliance with good diet and exercise was negatively correlated with scores for emotional support ($r = -.131, p < .01$). This means subjects who report being better at complying with a good diet and exercise tend to have less emotional support, or that subjects who have more emotional support tend to feel less successful at complying with good diet and exercise.

Table 3

Correlations among the Study Variables

Pearson Correlation	Age	Compliance with Good Diet and Exercise	Emotional Support
Perceived Success in Managing Disease	-.087	.321***	-.188***
Age		.051	-.100*
Compliance with Good Diet and Exercise			-.131**

Note. $N = 335$

*** $p < .001$, ** $p < .01$, * $p < .05$

Independent Samples t Test

The assumptions associated with the independent samples t test are that the DV is normally distributed, the variances of the DV are approximately equal for the two groups, I sampled the subjects independently from their populations. Table 4 shows the results of the t test. The four t tests show that Caucasian and Hispanic subjects were not significantly different in average age or in how well they managed their diet and exercise. The t tests on emotional support and average perception of success in managing CVD indicated that Hispanic women had significantly higher scores for perception of success in managing CVD and Caucasian women received a significantly higher degree of emotional support.

Using 95% confidence interval to measure the significance of the gap in the observable data of the different population groups, I analyzed the data. Confidence intervals in general provide raw and immediately evident measures of how distinct response scores have been from two or more distinct population groups. In the case of the

present study, we can learn a bit about the distinctions in the research responses of the two groups, particularly based on the salience of certain confidence intervals. Most specifically, the confidence intervals reported between the Caucasian and Hispanic respondents in the area of emotional support are especially telling. With a lower end score of 19.56 and a higher end score of 28.10, the confidence interval shows a mean difference of 23.83. Compared to mean differences of -.13 and .52 in the areas of diet and exercise and preparation for the disease respectively, we can see that emotional support is the most compelling variable for the measurement between an experimental and control group. And in accordance with the implications of the confidence interval, achieving a similar mean difference is possible in any future study of the same subject and representative populations.

Table 4

Results of Independent Samples t test

	Mean (Caucasian)	Mean (Hispanic)	<i>t</i>	<i>df</i>	<i>p</i> (2- tailed)	Mean Diff.	95% Confidence Interval	
							Lower	Upper
Age	65.45	65.37	0.12	333	.904	.08	-1.15	1.30
Perceived success in managing CVD	4.47	4.99	-3.82	290.7 _a	<.001	-.52	-.79	-.25
Good diet & exercise	4.77	4.90	-1.18	274.3 _a	.238	-.13	-.35	.09
Emotiona l Support	96.01	72.17	10.9 8	290.5 _a	<.001	23.83	19.56	28.10

^a Degrees of freedom estimated because of unequal variances

Simple and Multiple Linear Regression

The assumptions associated with linear regression are that the variables are interval or ratio data, are normally distributed, have few outliers, and have uniform distribution around the regression line. In addition, the residuals are approximately normally distributed. All of the aforementioned assumptions are applicable, and the discussion includes results of the regression analyses in relation to the research questions.

Research Question 1

Research question 1 investigated the relationship between social and emotional support and perception of success in managing CVD in postmenopausal women between the ages of 55 and 84. I used linear regression with perception of success in managing CVD as the DV and emotional support as the predictor. As shown in Table 5, the analyses of variance accompanying this regression resulted in $F(1, 333) = 12.15, p = .001$. Results indicated that the relationship between emotional support and perception of success was statistically significant, or that the prediction of Perception of Success in Managing CVD is possible with the using Emotional Support. On the other hand, the negative coefficient for emotional support (-0.010) indicated a negative relationship between emotional support and perception of success. In other words, a higher level of emotional support is associated with a lower perception of success, while a lower level of emotional support is associated with a higher perception of success. The computed p -value (0.006) for emotional support confirmed that emotional support is a significant predictor of perception of success. Finally, the R square value indicated that emotional support accounted for 3.5% of the variance in perception of

success in the sample and is expected to account for 3.2% of the variance in perception of success in future samples.

Table 5

RQ1 Analysis Summary

Variable	B	95% CI for B	Beta	<i>t</i>	<i>p</i>
Constant	5.6024	5.0926 to 6.1123		21.617	.0000
Emotional Support	-0.0104	-0.0162 to -0.0045	-.1876	-3.486	.0006

Note. $R = .188$, $R^2 = .035$, adjusted $R^2 = .032$

Model: $F(1, 333) = 12.151$, $p = .001$

Research Question 2

The second research question examined the levels of social and emotional support with perceived levels of success among different ethnicities. I used a moderated multiple regression approach with perception of success as the dependent covariate, emotional support as the predictor covariate, and ethnicity as a moderator covariate. Ethnicity was coded as a dichotomous variable (Caucasian = 1, Hispanic = 0). The first step in this analysis was to create standardized values of the independent variable, emotional support, as recommended by Creswell (2009), and to create an interaction term equal to the product of DV and the moderator variable (ethnicity). In the analysis, the DV (perception of success) was regressed on three predictor variables: the IV, the moderator variable, and the interaction term. Having a significant regression coefficient ($p < 0.0001$) for the interaction term means that a significant moderating effect of ethnicity exists. As indicated by the results in Table 6, the significant p -value for the interaction term ($p < .001$) indicated that ethnicity does moderate the relationship between emotional support

and perception of success. In other words, the relationship between emotional support and perception of success is different for Caucasian women than it is for Hispanic women.

Table 6

RQ2 Analysis Summary

Variable	B	95% CI for B	Beta	<i>t</i>	<i>p</i>
Constant	5.407	5.190 to 5.624	---	49.00	.0000
Ethnicity	-0.652	-.942 to -.362	-0.255	-4.42	.0000
Emotional Support	0.801	0.544 to 1.058	0.627	6.13	.0000
Interaction (ES x Ethnicity)	-1.357	-1.665 to -1.049	-0.806	-8.67	.0000

Research Question 3

The third research question was concerned with the relationship between subjects' perception of success and their self-reported compliance with healthy diet and exercise behaviors. Again, I fitted linear regression with perception of success in managing CVD as the DV and diet and exercise as the predictor. The analysis of variance accompanying this regression resulted in $F(1, 333) = 38.22, p < .001$. This result indicated that the relationship between diet and exercise as well as perception of success was statistically significant. The positive regression coefficient for diet and exercise (0.407) indicated that there is a positive relationship between perception of success and diet and exercise. In other words, individuals who report higher levels of compliance with healthy diet and exercise also perceive themselves as being more successful at managing their disease. Diet and exercise is a significant predictor of perception of success, as shown by the significant *p*-value ($p < 0.0001$). Moreover, the

R square value indicated that diet and exercise accounted for 10.3% of the variance in perception of success in the sample, and is expected to account for 10.0% of the variance in perception of success in future samples. Table 7 includes these results.

Table 7

RQ3 Analysis Summary

Variable	B	95% CI for B	Beta	<i>t</i>	<i>p</i>
Constant	2.76	2.123 to 3.402		8.493	.0000
Diet and Exercise	.407	0.278 to 0.537	.321	6.182	.0000

Note. $R = .321$, $R^2 = .103$, adjusted $R^2 = .100$

Research Question 4

The fourth research question was concerned with the relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in postmenopausal women after controlling for social and emotional support. Multiple linear regression was fitted using perception of success as the DV and diet and exercise and emotional support as the predictor variables. Table 8 contains the results of the multiple linear regression. The regression coefficient for diet and exercise (0.383) when emotional support was included in the equation indicated that diet and exercise has a significant positive relationship with perception of success after controlling for emotional support. The significant *p-value* for the interaction term indicates that Emotional Support does moderate the relationship between Good Diet & Exercise and Perception of Success. In addition, both predictor variables were significant, with *p-values* <0.0001 (diet and exercise) and 0.0045 (emotional support), respectively.

Table 8

RQ4 Analysis Summary

Variable	B	Beta	<i>t</i>	<i>p</i>
Constant	3.570		8.343	.0000
Diet and Exercise	0.383	.302	5.822	.0000
Emotional Support	-0.008	-.148	-2.863	.0045
Interaction (D&E x ES)	0.306	0.167	3.219	.001

Follow-up Analyses

The analysis of Research Question 2 revealed that ethnicity had a strong moderating effect on the relationship between perception of success and emotional support. The effect suggested that Caucasian and Hispanic women might differ significantly regarding other variables and other relationships. I performed several analyses to investigate these potential differences.

Group Differences on Study Variables

First, I conducted a series of *t* tests to explore differences between Caucasian and Hispanic subjects on mean scores for the study variables. Table 9 shows the mean values and other measures of central tendency. I subdivided the data set into two groups for each ethnicity and summarized the results in the table.

Table 9

Mean Value Difference for Study Variables

Variable	Ethnicity	N	Mean	Std. Deviation	Std. Error Mean
Age	Hispanic	167	65.4	5.319	.412
	Caucasian	168	65.5	6.084	.469
Perceived Success in Managing Disease	Hispanic	167	4.99	1.471	.114
	Caucasian	168	4.47	.991	.076
Good Diet and Exercise	Hispanic	167	4.90	1.216	.094
	Caucasian	168	4.77	.742	.057
Emotional Support	Hispanic	167	72.2	15.5	1.20
	Caucasian	168	96.0	23.4	1.81

The figures below illustrate the distributions of the study variables for the two

ethnic groups.

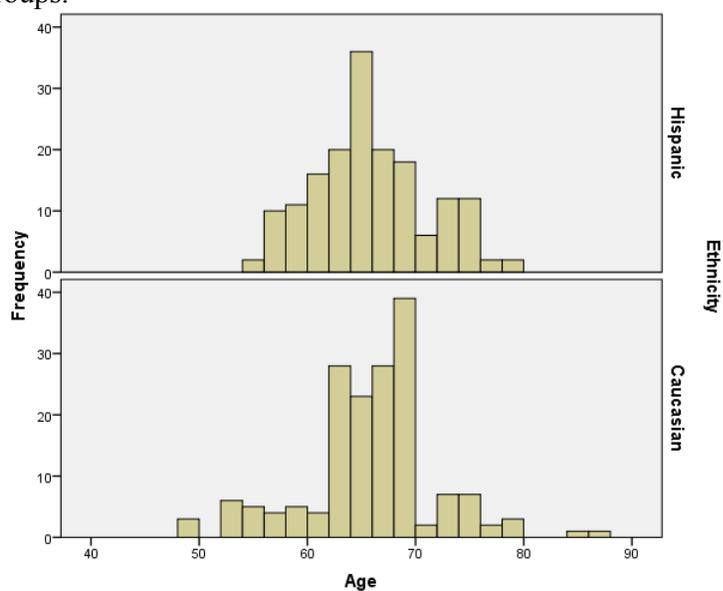


Figure 5. Distribution of age in different ethnicities.

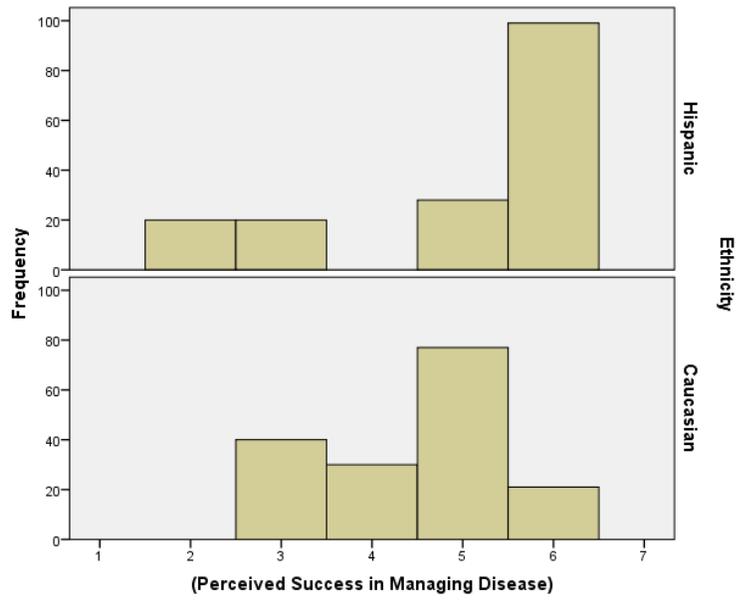


Figure 6. Perceived success in managing disease in different ethnicities.

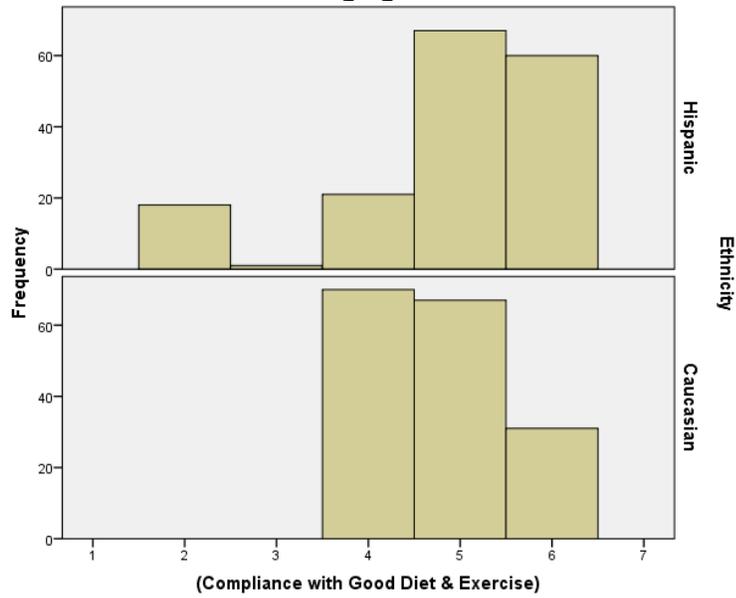


Figure 7. Compliance with good diet and exercise in different ethnicities.

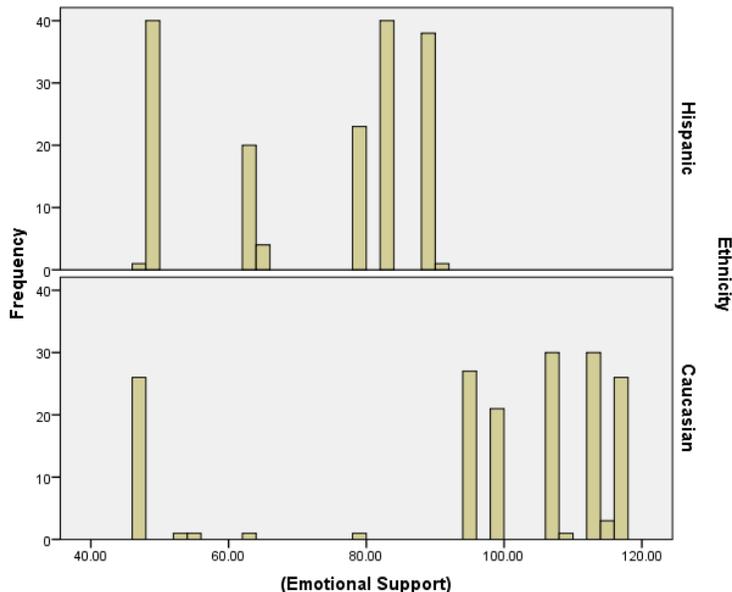


Figure 8. Emotional support in different ethnicities.

Table 10 contains the results of the t tests comparing the means of the two ethnic groups. Hispanic and Caucasian subjects did not differ in mean age and mean good diet and exercise scores, but had significantly different scores on the other two variables. Thus, Hispanic subjects had higher scores on perceived success in managing disease, while Caucasian subjects had higher mean scores on emotional support.

Table 10

t-test Results to Compare Ethnicities

Variable	T	df	p (2-tailed)	Mean Difference	95% CI of the Difference
Age	-0.120	333	.9040	-0.08	-1.30 to 1.15
Perceived Success in Managing Disease	3.821	290.7 ^a	.0000	0.52	0.25 to 0.79
Good Diet and Exercise	1.184	274.3 ^a	.2380	0.13	-0.09 to 0.35
Emotional Support	-	290.5 ^a	.0000	-23.83	-28.10 to

Note. ^aDegrees of freedom adjusted because Levene's test indicated that group variances were not equal.

Group Differences in Correlations among Study Variables

The results of Research Question 1 indicated that the correlation between perception of success and emotional support would be different for the two ethnicities. Table 11 shows the correlations among all study variables for Caucasian and Hispanic subjects.

Table 11

Correlations among All Study Variables for Caucasian and Hispanic Subjects

Variable	Group ^a	Perceived Success	Good Diet and Exercise	Emotional Support
Age	Caucasian	.110	.137	-.146
	Hispanic	-.246**	-.004	-.081
Perceived Success	Caucasian		.573**	-.567**
	Hispanic		.209**	.366**
Good Diet and Exercise	Caucasian			-.280**
	Hispanic			.018

Note. ** $p < .01$

^aCaucasians, $n = 168$; Hispanics, $n = 167$

The results in the two preceding tables show that the Caucasian and Hispanic respondents exhibited many differences regarding the variables of perceived success, good diet and exercise, and emotional support. I completed additional analyses to investigate whether these differences would affect the results of the statistical analysis conducted to resolve Research Questions 1, 3, and 4.

Research Question 1 Repeated Separately by Ethnicity

Research Question 1 investigated the relationship between emotional support and perception of success using a regression approach. The result for the combined sample was that there was a significant negative relationship between the two variables. In the reanalysis, I performed a simple linear regression for each ethnicity group separately with perceived success as DV and emotional support as the predictor variable. Table 12 shows the summary of the results of the two analyses. For each analysis, the overall ANOVA was significant; for Hispanic subjects, $F(1,165) = 25.5$, $p < .001$, and for Caucasian subjects, $F(1,166) = 78.8$, $p < .001$. The results of the regression showed that for both ethnicities, emotional support was a significant predictor of perceived success ($p < 0.0001$) for both ethnic groups). For Hispanic subjects, the relationship was positive, indicating a direct relationship between Emotional Support and Perception of Success. For Caucasian subjects, the relationship was negative, indicating an inverse relationship between Emotional Support and Perception of Success. Thus, the presence of an uncontrolled variable, ethnicity contaminated the previous result based on the combined groups. This means that separate analysis for the two ethnic groups is necessary; otherwise conclusions will come from misleading results.

Table 12

RQ2 Reanalysis

Ethnicity	Variable	B	95% CI for B	Beta	<i>t</i>	<i>p</i>
Hispanic	Constant	2.498	1.499 to 3.497		4.936	.0000
	Emotional Support	0.035	0.021 to 0.048	.366	5.045	.0000
Caucasian	Constant	6.775	6.248 to 7.302		25.359	.0000
	Emotional Support	-0.024	-0.029 to -0.019	-.567	-8.878	.0000

Hispanic: R = .366, R² = .134, adjusted R² = .128; F(1, 165) = 25.5, p < .001

Caucasian: R = .567, R² = .322, adjusted R² = .318; F(1, 166) = 78.8, p < .001

Research Question 3 Repeated Separately by Ethnicity

Research Question 3 was concerned with the relationship between perceived success and good diet and exercise, and it was analyzed using simple linear regression. In the original analysis, the two variables had a significant positive relationship. In the reanalysis, for each ethnicity group separately, I performed a simple linear regression with perceived success as DV and good diet and exercise as the predictor variable. Table 13 shows the summary of the results for the two analyses. For each ethnic group, the overall ANOVA was found to be significant; for Hispanic subjects, $F(1, 165) = 7.51, p = .007$, and for Caucasian subjects, $F(1, 166) = 81.2, p < .001$. For each ethnicity, good diet and exercise was a significant predictor of perceived success ($p < 0.001$ for Caucasians and $p = 0.007$ for Hispanics), and the relationship was positive in each case. In other words, the effect of an increase in good diet and exercise score denotes an increase in perceived success for both ethnic groups.

Table 13

RQ3 Reanalysis

Ethnicity	Predictor	B	95% CI for B	Beta	<i>t</i>	<i>p</i>
Hispanic ^a	Constant	3.758	2.840 to 4.676		8.085	.000
	Good Diet and Exercise	0.252	0.070 to 0.434	.209	2.740	.007
Caucasian ^b	Constant	0.823	0.014 to 1.632		2.008	.046
	Good Diet and Exercise	0.765	0.597 to 0.933	.573	9.010	.000

Note. ^a $R = .209$, $R^2 = .044$, adjusted $R^2 = .038$; ^b $R = .573$, $R^2 = .328$, adjusted $R^2 = .324$

Research Question 4 Repeated Separately by Ethnicity

The fourth research question concerned the relationship between diet and exercise from the perspective of the participants and the perception of success in managing CVD in postmenopausal women after controlling for social and emotional support. When analyzing the two groups together, the results showed that diet and exercise had a significant positive relationship with perception of success after controlling for emotional support.

Table 14 contains the results of analyzing the data for the two groups separately. The overall ANOVA was significant for both ethnic groups; for Hispanic subjects, $F(2,164) = 17.3$, $p < .001$, and for Caucasian subjects, $F(2,165) = 85.2$, $p < .001$. In each analysis, the coefficient for good diet and exercise was positive and significant when emotional support was controlled for ($p < 0.001$ for Caucasian and $p = 0.005$ for Hispanic). The positive coefficients denoted that perceived success scores increase for every unit of increase in good diet and exercise scores. In addition, for Caucasian

subjects, the combination of diet and exercise and emotional support accounts for over 50% of the variance in perceived success. For Hispanic subjects, the variation in perceived success is much lower.

The results of the analysis on the interaction term between Good Diet & Exercise and Emotional Support indicates that separate analysis the data from the two ethnic groups resulted in insignificant interactions. As stated in the previous section, this shows that analyzing the data from the two ethnic groups as one data set could lead to misleading results. Therefore, it is important to analyze Hispanic and Caucasian women as different populations separately.

Table 14

RQ4 Reanalysis

Ethnicity	Variable	B	Beta	<i>t</i>	<i>p</i>
Hispanic ^a	Constant	1.324		2.054	.042
	Good Diet and	0.245	.202	2.850	.005
	Emotional Support	0.034	.362	5.102	.000
	Interaction (D&E x	0.263	0.103	1.079	0.282
Caucasian	Constant	3.403		7.034	.000
	Good Diet and	0.600	.449	7.904	.000
	Emotional Support	-0.019	-.442	-7.766	.000
	Interaction (D&E x	0.053	0.042	0.75	0.454

Note. ^a $R = .418$, $R^2 = .175$, adjusted $R^2 = .164$; ^b $R = .713$, $R^2 = .508$, adjusted $R^2 = .502$

Summary

Table 15 contains the results of the data analysis for the four research questions.

Table 15

Results Analyses Summary

Analysis	Relationship Investigated	Methodology	Results
Research Question 1	Relationship between emotional support and perception of success	Simple linear regression	Emotional support accounts for 3.5% of the variance in perception of success and has a significant negative relationship with perception of success
Research Question 2	Moderating effect of ethnicity on the relationship between emotional support and perception of success	Moderated multiple regression	Ethnicity has a significant moderating on the relationship between emotional support and perception of success
Research Question 3	Relationship between perception of success and good diet and exercise	Simple linear regression	Good diet and exercise accounts for 10.3% of the variance in perception of success and has a significant positive relationship with perception of success
Research Question 4	Relationship between perception of success and good diet and exercise after controlling for emotional support	Multiple linear regression	Diet and exercise has a significant positive relationship with perception of success after controlling for emotional support

Analysis	Relationship Investigated	Methodology	Results
Follow-up Analysis	Group differences on study variables	Independent samples <i>t</i> test	Hispanic and Caucasian subjects did not differ in mean age and mean good diet and exercise scores. Hispanic subjects had higher scores on perceived success in managing disease, while Caucasian subjects had higher mean scores on emotional support
Research Question 1, analyzing ethnic groups separately	Relationship between emotional support and perception of success	Simple linear regression	For both ethnicities emotional support was a significant predictor of perceived success, but for Hispanic subjects the relationship was positive, while for Caucasian subjects the relationship was negative
Research Question 3, analyzing ethnic groups separately	Relationship between perception of success and good diet and exercise	Simple linear regression	For each ethnicity, good diet and exercise was a significant predictor of perceived success, and the relationship was positive in each case
Research Question 4, analyzing ethnic groups separately	Relationship between perception of success and good diet and exercise after controlling for emotional support	Multiple linear regression	In each analysis, the coefficient for good diet and exercise was positive and significant after controlling for emotional support

The main purpose of the study was to evaluate the relationship between attitudes, emotional support, and perception of success in handling CVD. I was able to meet the objectives by analyzing data collected from 335 women (168 Caucasian and 167 Hispanic). These respondents answered two surveys, namely ISEL (support questionnaire) and a demographic survey. Linear regressions (simple and moderated multiple regression) were utilized to assess the relationship between the variables. I checked the differences between the mean age, diet and exercise scores, perceived success in handling CVD scores, and emotional support scores of the two ethnic groups using independent *t* tests. Finally, I fitted linear regressions again, but this time fitting of the models was on a per ethnic group basis.

First, the results showed that emotional support (negative) and good diet and exercise (positive) had a significant relationship with perceived success in handling CVD. Second, I observed ethnicity to be a significant moderating factor concerning the relationship between perception of success in handling CVD and emotional support. The presence of ethnicity as a moderating variable showed that a positive relationship existed between perception of success and emotional support. Finally, when controlling for emotional support, a positive significant relationship exists between diet and exercise and perception of success.

When comparing the means of the ethnicities, all factors had a significant difference, except for age and good diet and exercise scores. The results have proven that Hispanic women had higher scores in perceived success in handling CVD. Conversely, emotional support scores were higher among Caucasian subjects.

After fitting regression models for each ethnic group, emotional support and good diet and exercise emerged as significant predictors, regardless of the ethnic group to which the women belonged. However, a positive relationship existed among Hispanic subjects with regard to emotional support, while the relationship was negative for Caucasian subjects. With respect to good diet and exercise, both models showed that the relationship was positive. Finally, after emotional support was controlled, the coefficient for good diet and exercise showed a positive relationship. Chapter 5 includes discussion of the results in connection with the existing literature. Chapter 5 will also include the implications of these results and the subsequent recommendations that resulted from the findings of the study, as well as the limitations of the study.

Chapter 5: Discussion and Recommendations

CVD is the leading cause of death for women in the United States and ethnic minority women exhibit higher CVD risk factors as compared to non-Hispanic women (Juarbe, 1998). While studies have found a greater prevalence of CVD risk factors in African American women (Fleury, 2000), there is a paucity of research on CVD risk factors for Hispanic Americans, who constitute 11% of the population of the United States (Eyler et al., 2002). Studies have shown a link between the availability of emotional support and health outcomes (Cohen, 1994; Eyler et al., 2002). To respond to the lack of literature on CVD and Hispanic Americans, the purpose of this study was to investigate the impact of emotional support in managing CVD in Hispanic and non-Hispanic menopausal women aged 55 and older.

Based on the analysis of the data collected from the 335 women who participated in the study, ethnicity emerged as a moderating variable between the perception of success in handling CVD and emotional support. While emotional support was a significant predictor of perceived success for all participants, the relationship between the two variables was positive or direct for Hispanics and negative or indirect for non-Hispanics. Diet and exercise emerged as significant direct predictor of perceived success in handling CVD when the variable of emotional support was controlled. Results also showed that, while the Hispanic women had higher scores for perceived success in handling CVD, the non-Hispanic women had higher emotional support scores.

Interpretation of Findings

The theoretical framework of stress and coping social support theory is the basis of the study, as discussed by Barrera (1985). According to Barrera (1985), patients' social support systems, comprised by family, friends, and coworkers, among others, are a key factor in helping them cope with stressful events, such as the onset of menopause and managing CVD. The results of this study largely support the assertions from previous studies regarding the interconnection between emotional support and health outcomes. Based on the study results, emotional support is a significant predictor of perceived success in managing CVD for the participants. A review of the existing literature confirmed the protective benefits of social integration after the onset of CVD, which can facilitate recovery for patients (Berkman et al., 2002). However, Berkman et al. (2002) also stressed the importance of maintaining positive relationships, and avoiding those that can have potentially negative effects on the patient's physical and mental health. Likewise, O'Connor (2005) noted that the lack of emotional support during health crises can cause unnecessary stress for patients and can hinder recovery.

Mental health is also a factor in recovery. Uchino (2006) stated that over 90% of illnesses have a psychosomatic origin, attesting to the connection between psychosocial wellbeing and physical wellbeing. Similarly, a patient's current psychosocial state affects how he/she deals with recovering from or managing a life-threatening condition, such as CVD (Uchimo, 2006). In turn, the type of environment in which the patient lives affects these mental and psychosocial states and, in particular, his or her support system.

According to O'Connor (2005), the type of support system present during a patient's

recovery period affects his or her health outcomes. Patients with a healthy support system to provide encouragement are able to overcome the challenges associated with CVD, such as periods of depression and stress. In contrast, patients without these healthy support systems are more susceptible to the adverse health effects related to CVD and often experienced larger declines in their overall levels of health (O'Connor, 2005). A patient with a supportive environment may be more predisposed to have a positive outlook on life and recovery, which can reduce levels of stress that contribute to CVD. However, this study does not take into account the current mental health status of the participants as a factor affecting perceived success in managing CVD. The recommendation section contains details of this as an area for further exploration.

As indicated in previous chapters, there is a paucity of studies examining CVD in relation to the Hispanic population and, in particular, Hispanic women. This study contributes to the existing literature by determining how ethnicity affects the relationship between perceived success in managing CVD and emotional support. While I expected that emotional support would be a significant predictor of perceived success in managing CVD among menopausal women, the contrasting nature of the relationship between the two variables as determined by the participants' ethnicity was not expected. The results indicated that for Hispanic women, emotional support has a direct correlation to perceived success in managing CVD. This means that the presence of emotional support helps increase the women's perceived success in managing CVD. However, for non-Hispanic women, emotional support has a negative correlation with perceived success in

managing CVD, or that the presence of emotional support was associated with decreased perceptions of success in managing CVD for the menopausal women surveyed.

The disparity between the relationship between emotional support and perceived success in managing CVD for the two ethnic groups surveyed has a relationship with the nature of the emotional support present in the patient's environment during the recovery period. The findings of previous researchers support this assertion, including Lukkarinen and Hentinen (1998), who stated that the quality of social relationships matters.

According to Repetti et al. (2002), having large social networks or being part of social and emotional support groups does not necessarily translate to greater health benefits.

This suggests that a small, tight-knit support system may be more beneficial to recovery outcomes, especially in the case of women. The support provided by immediate family members, such as the patient's spouse, is especially important. Gallo (2003) stated that women with happy marriages have less severe cases of CVD as compared to the women who reported having marital problems, corroborating the effects of emotional support on recovery. As such, the findings of the study may also be suggestive of how the nature of the relationships affects recovery from CVD, warranting further investigation.

I also expected that diet and exercise have significant correlation with perceived success in managing CVD. As stated by Janevic et al. (2010), regular physical activities are good for recovering CVD patients because these activities serve to alleviate the adverse effects of most CVDs. In connection with these studies, the improved physical condition that resulted from diet and exercise may have had a positive effect on the psychological status of the participants, in turn affecting their perception of success in managing their CVD.

Limitations

The results of this study are limited with regard to their generalizability. The conclusions reached in this study may not necessarily apply to all menopausal women in other geographical locations within the United States because of the geographical limitation of the sample gathered. There may be variables that would have affected the results of the study had it been conducted in a different location, such as economic status or social structure. Therefore, while the findings of this study may be generalized to Hispanic and non-Hispanic menopausal women from Atlanta, Georgia, they may not necessarily be applicable to other population groups in different geographical locations. Similarly, while this study separated women into two distinct groups, Hispanic and non-Hispanic, the generalizability of the results does not extend to menopausal women who are African American. The uniqueness of the African American culture a part of the study considerations, and thus, certain cultural aspects may affect study results if African American women were separate ethnic group from other non-Hispanic menopausal women. The same is applicable for women who come from other ethnic backgrounds, such as Asians, Pacific Islanders, and Native Americans.

The fact that I conducted sample recruitment within a relatively small sphere, in particular, Catholic communities limits the validity of the study. Religion is also a factor that affects relationships, and consequently, recruiting a sample that is not so religiously homogenous may affect the study results. Thus, the findings of this study may not necessarily be generalizable to Hispanic and non-Hispanic menopausal women currently managing CVD who worship under other religious denominations. The fact that I

conducted the study within the scope of the Catholic community may have also affected the racial distribution of the non-Hispanic women in comparison to the Hispanic menopausal women. Some ethnic groups are majority Catholic, such as Irish Americans and Italian Americans, as opposed to other non-Hispanic ethnic groups that may be culturally predisposed to other faiths, such as Protestant or Anglican German Americans or other Anglo-Saxon ethnic groups. Therefore, based on the recruitment techniques utilized in this study, the non-Hispanic sample may be composed of individuals who come from the same ethnic background, which could affect their diet, their perceptions towards exercise, and their relationships with their families and other support providers. These factors could, in turn, have affected the results of the study, and compromised the validity of these results.

Recommendations

Based on the study results, it was determined that ethnicity had a moderating effect on the relationship between emotional support and perceived success in managing CVD. As mentioned, this study did not account for the effects of current mental health status on perceived success, although the previous literature has illustrated the psychosomatic nature of illness and studied how mental health can affect physical health (Bowmen, 2006). This provides an avenue for further research. If ethnicity moderates the relationship between emotional support and perceived success in managing CVD, then ethnicity may also be a moderating factor between perceived success in managing CVD with other variables that can affect recovery from or management of CVD, such as current mental health status. As with this study, focusing the investigation in this

particular area on Hispanic women in comparison to other ethnic groups in order to contribute to the existing body of literature on CVD and the Hispanic population is a must.

In a related manner, the contrast between the relationship of emotional support and perceived success of managing CVD in Hispanic women (direct or positively correlated) and non-Hispanic women (inverse or negatively correlated) points to an extension of this study. Future researchers can focus on quantifying the quality of relationships of Hispanic menopausal women versus those of non-Hispanic women. The results of such a study explain the findings of this study, which indicate that emotional support is an inverse predictor of perceived success in managing CVD. A similar quantitative study could also focus on satisfaction with relationships with support providers, such as spouses or life partners, children, friends, and primary care physicians and nurses. The results of this suggested study can yield information on the identities of the primary support providers of Hispanic women versus non-Hispanic women, as well as how ethnicity moderates the relationship between satisfaction with relationships with support providers and perceived success in managing CVD.

A review of the literature also revealed another aspect of the relationship between social support and relationships with health outcomes (Cohen, 2004). Confusing the health-protective value of positive relationships for women by chronic conditions that reduce quality of life is common. A study focusing on how this phenomenon manifests in relation to Hispanic women with CVD in particular is possible by recruiting a sample composed entirely of Hispanic women with CVD. The data collected from this sample

can help determine the moderating effect of CVD on the predictive effects of satisfaction with relationships with support providers and perceived success in managing CVD.

The sampling techniques I used in this study may have affected the validity of the study results. It is therefore recommended that this study be replicated using a sampling technique that covers a broader population, rather than being limited to a population disproportionately affected by religious affiliation. Sampling in future studies should ensure that the ethnic composition of the women in the non-Hispanic comparison group includes women from varying cultural backgrounds.

Implications

The findings of this study are of particular importance to primary health care providers. Failure to understand the significant differences between patients from various ethnic groups can hamper their ability to provide effective health care. The unique characteristics of each ethnic group may create medical and health care needs that are specific to that population. The findings of this study contribute to the existing body of knowledge on the role of emotional support in the recovery from CVD. In this particular case, the findings emphasize the direct predictive effect of emotional support on perceived success in managing CVD. Therefore, primary care providers are encouraged to educate their patients, particularly Hispanic menopausal women, about the importance of developing and maintaining healthy relationships and about how these relationships can affect their recovery from and management of their CVD.

At the policy and administrative level, the results of this study provide support for the necessity of emphasizing emotional support training for nurses and other primary care providers. The results point to the need to shift the focus from technical knowledge and

mechanical skill in the medical and nursing profession to the human aspect of healing. Similarly, nurses and other primary care providers should be educated on how to coordinate nursing efforts with the other members of the patient's support system to increase success rates in the management of CVD, especially for Hispanic menopausal women. Even more than physicians, nurses are in a critical position to increase CVD management success rates, because they are in the unique position of addressing the patient's clinical needs while simultaneously responding to their need for proper education and a supportive network during the recovery period (Dahl & Penque, 2000).

The results of this study also highlight the importance of promoting positive lifestyle changes for the public in general, and Hispanic and non-Hispanic menopausal women in particular. According to Deaton (2000), while exercising is beneficial for patients suffering from CVD, women are less likely to attend cardiac rehabilitation programs compared to men. Deaton (2000) also stated that women are less likely to exercise than men and have difficulty maintaining increased activity levels. In light of this, it may be beneficial for policy makers in the medical community to make preventive health education and health care a priority. Increasing public awareness regarding the importance of proper diet and exercise in preventing CVD may help decrease rates of CVD in the United States. I hope that the findings of this study encourage the medical community to promote patient education regarding the importance of maintaining healthy personal relationships and proper diet and exercise.

Conclusion

The results of this study indicate that ethnicity is a moderating factor in the relationship between factors regarding management of CVD, particularly for Hispanic menopausal women. This study also identified several recommendations for future research to address the dearth of knowledge on Hispanic Americans and CVD. In particular, given the alarming statistics regarding Hispanic-American women and chronic conditions, it is imperative that the medical community initiates preventive healthcare measures addressed to this specific demographic group. Promoting health education and healthy lifestyle changes that fit the unique characteristics of this demographic group may be the first step in addressing the problem of CVD, among other chronic conditions, in Hispanic menopausal women.

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Appendix A: Original Survey Instrument

Demographics

1. What is your ethnicity?
 - a. African American
 - b. Asian
 - c. Caucasian
 - d. Hispanic
 - e. Other
2. What is your age ____?
3. Have you ever been screened for cardiovascular disease?
 - a. Yes (If the participant answers “Yes”, the investigator distributes the survey)
 - b. No (If the participant answers “No”, the investigator do not distribute the survey)
4. Have you ever been diagnosed with cardiovascular disease?
 - a. Yes (If the participant answers “Yes”, the investigator distribute the survey)
 - b. No (If the participant answers “No”, the participant is not selected to take the survey)
5. Through changes to my diet and exercise I am able to manage my cardiovascular disease very well

Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6

6. I eat healthy and exercise to maintain a healthy body

Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	2	3	4	5	6

Appendix B: Interpersonal Support Evaluation List

This scale is made up of a list of statements each of which may or may not be true about you. For each statement check "definitely true" if you are sure it is true about you and "probably true" if you think it is true but are not absolutely certain. Similarly, you should check "definitely false" if you are sure the statement is false and "probably false" if you think it is false but are not absolutely certain.

1. There are several people that I trust to help solve my problems.

____ definitely true (3) ____ definitely false (0)
 ____ probably true (2) ____ probably false (1)

2. If I needed help fixing an appliance or repairing my car, there is someone who would help me.

3. Most of my friends are more interesting than I am.

4. There is someone who takes pride in my accomplishments.

5. When I feel lonely, there are several people I can talk to.

6. There is no one that I feel comfortable to talking about intimate personal problems.

7. I often meet or talk with family or friends.

8. Most people I know think highly of me.

9. If I needed a ride to the airport very early in the morning, I would have a hard time finding someone to take me.

10. I feel like I'm not always included by my circle of friends.

11. There really is no one who can give me an objective view of how I'm handling my problems.

12. There are several different people I enjoy spending time with.

13. I think that my friends feel that I'm not very good at helping them solve their problems.

14. If I were sick and needed someone (friend, family member, or acquaintance) to take me to the doctor, I would have trouble finding someone.
15. If I wanted to go on a trip for a day (e.g., to the mountains, beach, or country), I would have a hard time finding someone to go with me.
16. If I needed a place to stay for a week because of an emergency (for example, water or electricity out in my apartment or house), I could easily find someone who would put me up.
17. I feel that there is no one I can share my most private worries and fears with.
18. If I were sick, I could easily find someone to help me with my daily chores.
19. There is someone I can turn to for advice about handling problems with my family.
20. I am as good at doing things as most other people are.
21. If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me.
22. When I need suggestions on how to deal with a personal problem, I know someone I can turn to.
23. If I needed an emergency loan of \$100, there is someone (friend, relative, or acquaintance) I could get it from.
24. In general, people do not have much confidence in me.
25. Most people I know do not enjoy the same things that I do.
26. There is someone I could turn to for advice about making career plans or changing my job.
27. I don't often get invited to do things with others.
28. Most of my friends are more successful at making changes in their lives than I am.
29. If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.).
30. There really is no one I can trust to give me good financial advice.

31. If I wanted to have lunch with someone, I could easily find someone to join me.
32. I am more satisfied with my life than most people are with theirs.
33. If I was stranded 10 miles from home, there is someone I could call who would come and get me.
34. No one I know would throw a birthday party for me.
35. It would be difficult to find someone who would lend me their car for a few hours.
36. If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it.
37. I am closer to my friends than most other people are to theirs.
38. There is at least one person I know whose advice I really trust.
39. If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me.
40. I have a hard time keeping pace with my friends.

Appendix C: Informed Consent

The Impact of Emotional Support in Managing Cardiovascular Diseases among Hispanic Menopausal Women and Non- Hispanic Menopausal Women

Walden University

Participants are invited to participate in a research study of emotional support in managing cardiovascular diseases among two ethnic groups Hispanic and Non -Hispanic menopausal women. You were selected as a possible participant of your age, condition and gender related to topic. Please read this form and ask any questions you have before taking this survey questionnaire. This study has been conducted by XXXXXXXXXX, Doctoral Candidate at Walden University.

Background Information:

The purpose of this study is to better understand your emotional support and its impact in managing cardiovascular diseases. All participants should be self- reported as eligible participants who have been screened or diagnosed with cardiovascular diseases.

Procedures:

If you agree to be in this study, if you have no cardiovascular diseases, you are not eligible to participate in this study, but if you answer “Yes” you will be asked to participate in two surveys questionnaires each one takes less than 5 minutes. Be sure you answer all these questions, and do not leave any items blank. In order to ensure your anonymity, please do not put your name, or any other identifying information anywhere on the questionnaires.

Voluntary Nature of the study:

Your participation in this study is strictly voluntary. Your decision where or not to participate will not affect your current or future relations with Walden University, your employer, or the church. You are free to withdraw any time you want.

Risks and Benefits of being in this Study:

There are no known risks associated with participating in this study. Your support is the most important benefit that comes from your participation. You may terminate your participation any time if you feel stressful or invasive.

Compensation:

There is no form of compensation for participating.

Confidentiality:

The records of this study will be kept private. In case of publishing this research, the researcher will not include any information related to any participant. The researcher keeps surveys answers in a locked file. After one year, the records will be destroyed.

Contacts and Questions:

The researcher who is conducting this study is Claudette Andrea. The researcher advisor is Dr. John Nemecek. You may ask any question you have at Claudette.andrea@waldenu.edu, Dr. John Nemecek at john.nemecek @waldenu.edu. This project will be reviewed and protected by Walden University Institutional Review Board for The Protection of Humans Subjects in Research (IRB). The Research Participant Advocate at Walden University is Dr. Leilani Endicott at Leilani.Endicott@waldenu.edu if you have any question.

Leilani Endicott, PhD

Director of the research Center

Chair of Institutional Review Board Research Participant

Walden University 155 Fifth Avenue South

Minneapolis, MN 5540

Statement of Consent:

I have read the above information. I have asked questions and answers. I agree to participate in this study realizing that I may withdraw without a penalty at any time.

Printed Name of the Participant: -----

Signature: ----- Date: -----

Signature of Investigator: ----- Date: -----