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Coping Strategies Linked to African Americans with Chronic Kidney Disease

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Abstract

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MSN, Excelsior College, 2016

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Chronic kidney disease (CKD) is a health problem that affects African Americans more often than Whites and other ethnic groups. Individuals with CKD need to develop strategies to help with the disease and life challenges. Social support, self-management, and self-efficacy are factors that may influence how individuals with CKD cope with the disease. This quantitative correlational study examined the relationships among self-management, self-efficacy, and coping behaviors in African Americans with CKD in Stages 3 or 4. In addition, the moderating effect of social support on the extent to which self-management and self-efficacy account for the variance of coping behaviors in African Americans with CKD was examined. The theory used to guide this study is social cognitive theory. A convenience sampling method was used to recruit the study participants, who then completed a demographic questionnaire and four survey instruments. Results indicated that there is an effect between self-management, self-efficacy, and coping among African Americans in Stages 3 or 4 with CKD. Additionally, there was no moderating effect on the relationship between self-efficacy and coping; however, social support has a significant moderating effect on the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD. The results of this study have the potential to impact social change by identifying factors that may be used to empower patients with CKD in Stages 3 or 4 to develop strategies to cope with the disease, slow its advancement, and lead to enhanced quality of life.

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Dedication

The research process has been a humbling experience. I am giving honor to God, who is the head of my life. I want to heavenly thank my deceased husband, Jerry Lee Lawrence. Jerry, you have been so instrumental and encouraging throughout my nursing journey. Thank you for pushing me and encouraging me to keep going. It is because of you that I was able to complete this process in honor of you. My dissertation is dedicated to you. You will always hold a place in my heart.

Forever Yours,

Gab

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Many people have been instrumental in my life. To my young men, Sean and Darren Handy, Momma loves you both so much. I am because of you. Please do not let anyone cause you to feel you cannot. God said we can if we ask and remain steadfast. That is my hope for you: to keep God first and he will give you the desires of your heart. To my mother, thank you for loving and encouraging me every day you lived. Your death on January 16, 2022, hurt so much. This journey has been rough, but I am so thankful that you witnessed 80% of the grand finale. I can and will always lean on the emotional praise and support you nourished me with all my life. To my Roper family, thank you for giving me a sense of peace and love. You have graciously opened your hearts and allowed me to call your house my second home. Josephine Thomas Beach, you said, friends don't let friends study alone. We inspire each other and I thank God for you, our friendship, and sisterhood. Finally, I want to thank my pastor and first lady, Dr. Leonard and Sheila Small. You will forever be in my heart, and I love you so much. No matter what time I called or needed a listening ear, you both was there. Both of you have encouraged me from a young age with Bible-Fun Club, Sunday school teacher, as well as Sunday School Superintendent. Pastor Small you know from the time my daddy died on 3/8/2004 you stepped up and became my second daddy. It was not a time or day that I couldn't reach out. I will forever be grateful. I wish I could name everyone who has been inspirational one by one and give you a personal thank you. So many people encouraged me; therefore, thank you all from the bottom of my heart. From me to you, I wish you love and continued blessings. *Gabrielle*

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Chapter 1: Introduction to the Study

Chronic kidney disease (CKD) is a progressive illness that can develop into end-stage renal disease (ESRD) that requires therapy to replace the kidney's function, such as peritoneal dialysis or hemodialysis to survive (McKercher et al., 2013). The World Health Organization (WHO, 2020) estimated 1.36 million deaths attributable to CKD. CKD has five stages, and they are all associated with increased risks of cardiovascular morbidity, premature mortality, and decreased quality of life (Hill et al., 2016). CKD is an abnormality in kidney structure and function and results in a decreased glomerular filtration rate (GFR) of <69 ml/min (Webster et al., 2017). Renal function in patients with CKD declines gradually. In Stages 1 and 2, the individual diagnosed with CKD may be asymptomatic with a GFR range between 60 and 90 ml/min. In Stages 3 and 4, the individual GFR decreases and ranges between 59 and 29 ml/min. The individual may then start experiencing shortness of breath, hypertension, fluid retention, bone pain, and peripheral neuropathy (Charles & Ferris, 2020). The final stage (Stage 5) requires renal replacement therapy (Nguyen et al., 2019). As CKD progresses and kidney function becomes less effective, the individual experiences physiological and psychological effects. These effects can influence how individuals in Stages 3 and 4 of CKD cope and the state in which disease progression is decreased.

In the United States, African Americans experience some of the highest CKD rates among racial-ethnic groups (Laster et al., 2018). The cost of treatment for CKD patients is an issue for healthcare organizations and creates a substantial economic burden on health care systems (Gordois et al., 2004). Identifying factors that may influence

individuals with CKD Stages 3 or 4 to cope with the challenges of the disease may empower them to develop strategies to cope. The challenges they experience may interfere with their ability to cope with the disease and could have the potential to increase disease progression. In this study, I identified coping strategies that may impact African Americans with CKD in Stages 3 or 4. This study determined additional factors that can help these patients cope with the disease. African Americans with CKD are not always able to respond appropriately to the disease, therefore leading to stress (Nair et al., 2021). They may also experience depression, which can affect their family life (Yucens et al., 2019). This study determined factors that can help patients with CKD in Stages 3 and 4, cope with the disease. This study also identified coping strategies for African American patients with CKD in Stages 3 and 4.

The results of this study have the potential for positive social change for patients with CKD. Identifying factors that may facilitate coping can empower patients with CKD in Stages 3 and 4 to develop strategies for self-care management. In this chapter, I discuss the background, the problem statement, the purpose, the research question, the theoretical framework, the nature, and the significance of the study.

Background

CKD affects more than 10% of U.S. adults (Ozieh et al., 2017). The condition is an abnormality in kidney structure and function, which results in a decreased GFR of <69 ml/min (Webster et al., 2017). Renal function in patients with CKD declines gradually. CKD has five stages of disease progression. In Stages1 and 2, the individual diagnosed with CKD may be asymptomatic, with the GFR ranging between 60 and 90 ml/min. In

Stages 3 and 4, the individual's GFR decreases and ranges between 59 and 29 ml/min. The individual may then start experiencing shortness of breath, hypertension, fluid retention, bone pain, and peripheral neuropathy (Charles & Ferris, 2020). The final stage (five) requires some form of renal replacement therapy (Nguyen et al., 2019). CKD has multifactorial effects on the body. A healthy kidney cleanses toxins from the blood, removes waste, and balances electrolytes. Damage to the kidneys has physiological and psychological consequences for the individual. The physiological effects contribute to inflammation, immune dysfunction, vascular disease, platelet dysfunction, and increased bleeding risk (Webster et al., 2017). These physiological effects can lead to chronic renal failure resulting in the need for dialysis. Fatigue and depression are some psychological effects that CKD patients experience. Fatigue effects between 42% and 89% of individuals with the disease (Picariello et al., 2017). Depression in CKD patients is significantly higher than in the general population (Rees et al., 2108). As the condition worsens, the individual may feel overwhelmed.

In the United States, African Americans experience some of the highest CKD rates among racial and ethnic groups (Laster et al., 2018). The incidence of CKD in African Americans is 3 times higher than in European Americans (Wells & Anderson, 2011). African Americans constitute more than 35% of all patients in the United States receiving dialysis for kidney disease (Harding et al., 2017). Individuals diagnosed with kidney disease experience numerous changes that significantly impact their quality of life (Afsar et al., 2018). The changes may include anemia, fluid retention, elevated blood pressure, bone and mineral disorders, cardiovascular diseases, and sexual dysfunction

(Subramanian et al., 2017). These changes may result in dietary restrictions, work status changes, loss of income, and disruption in social support and family status (Damery et al., 2019).

African Americans with CKD have a high prevalence of obesity, diabetes, and hypertension (Laster et al., 2018). This prevalence puts African American individuals with CKD at increased risk of cardiovascular disease and increases their mortality risk (Murea & Tucker, 2019). When patients with CKD face debilitating complications they often become dependent on others. This factor results in a disruption within the family structure. (Schmidt-Busby et al., 2019). The debilitating impact of CKD may also lead to depression, limited energy, and a decrease in daily activities for these African American patients (Afsar et al., 2018). Thus, African Americans with CKD must identify strategies to help them cope with the disease process (Subramanian et al., 2017).

Patients with CKD utilize more engagement than disengagement strategies (Subramanian et al., 2017). Some engaging coping strategies include exercise, mediation, and prayer. Subramanian et al. (2017) found that individuals with CKD used both emotions and problem-focused approaches to adjust to the stressors associated with CKD (Subramanian et al., 2017). Implementing coping strategies to control risk factors, such as high blood pressure, elevated glucose levels, and weight management, can slow disease progression (Charles & Ferris, 2020). Coping is a response mechanism used to alleviate different life stressors on physiological responses (Subramanian et al., 2017). In the study conducted by Subramanian et al., specific coping strategies were proposed as having a beneficial effect on health outcomes. The coping strategies included cognitive

restructuring, social support, expressing emotion, and problem solving/avoidance. Effective coping allows the individual to have greater control of the challenges they encounter to effectively achieve their desired health outcome (Subramanian et al., 2017).

Social support is defined as a composite concept including attachment intimacy, social integration, nurturance, the reassurance of worth, and availability of assistance (Hall et al., 2019). It is also identified as a psychosocial mechanism that moderates stress-related health disparities (Turner & Marino, 1994). Challenges such as lifestyle changes are significant when one is diagnosed with CKD but can be managed with support. When chronically ill patients perceive a reduction in social support level, their level of responsiveness to treatment is likely to be lower than those in constant interaction with medical staff and social support base members (Hall et al., 2019). Social support base members are derived from four sources: spouse/partner, relatives, friends, and coworkers. Step et al. (2020) identified social support as an essential yet underexplored element of African Americans diagnosed with CKD. The quality of life of the patient diagnosed with CKD can directly or indirectly translate into responsiveness to treatment. Social support may positively or negatively impact an individual's quality of life (Step et al., 2020). Higher levels of social support have been positively linked to survival and increase the quality of life in patients with CKD; poor social support negatively impacts their quality of life (Untas et al., 2011a).

Self-management is the process in which individuals assume responsibility for their wellbeing and actions (Grady & Gough, 2018). The term *self-management* can be used interchangeably with *self-care* and *self-control* (Nguyen et al., 2019). Patients with

CKD must balance the disease's medical management and other chronic conditions with their daily lives. Self-management is vital to adjusting to CKD, as treatment entails patient involvement in and adherence to self-administration of routine medications and treatments (Hamler et al., 2018). The goal of self-management interventions and approaches to personalized care in African Americans is to improve their overall health outcomes (Coulon & Wilson, 2015). Self-reliance, personal achievement, and attentive responses to symptoms can be associated with better patient outcomes (Grady & Gough, 2018). Thus, achievement of these outcomes lessens further deterioration of the health of African American patients diagnosed with CKD.

Self-efficacy is the level of confidence that a person shows to complete specific tasks and the expectation that the desired outcome will be achieved (Kahe et al., 2018). Individuals then can adjust their behavior to achieve the desired results. The role of self-efficacy in African Americans with CKD is crucial to achieving positive health outcomes such as reduced levels of depression, improved adaptive coping, and improved psychosocial transformation (Subramanian et al., 2017). Self-efficacy is the ability to adjust behavior to reach desired health goals and to influence patient care outcomes for patients with CKD (Wells & Anderson, 2011). Those outcomes include slowing disease progression and improving blood pressure and glycemic control (Hill et al., 2016).

African Americans with CKD have a higher prevalence of comorbidities that have the potential to significantly decrease their quality of life (Murea & Tucker, 2019). They must develop coping strategies to help manage the life changes associated with the disease. Social support is associated with positive outcomes in CKD patients on dialysis

(Unitas et al., 2011b)); however, because of the disruption of the disease on social support and family status, achieving positive outcomes is challenging (Damery et al., 2019). Further assessment of the relationship between social support and adjustment in African American individuals with CKD is warranted. The ability of African Americans with CKD to assume responsibility for their treatment requirements and necessary lifestyle changes may be associated with better disease outcomes (Hamler et al., 2018). It is also essential to identify the role of social support in the ability of African Americans with CKD to manage their disease positively. In my review of the literature, I did not find studies that investigated the relationship among social support, self-management, self-efficacy, and coping in African Americans with CKD. This study addressed the gap in the literature.

Problem Statement

CKD is a health problem that affects African Americans at a higher rate than European Americans and other ethnic groups (Laster et al., 2018b). Diabetes and high blood pressure are the two leading causes of CKD. Compared to European Americans, African Americans have a higher prevalence of diabetes at 18.7% versus 9.6% and hypertension at 43.3% versus 29.2% (Saran et al., 2018). People with CKD face many challenges. Individuals diagnosed with CKD may experience anxiety, depression, panic attacks, feelings of being a burden to others, guilt, and loss of control (Ramer et al., 2012). Coping is a response mechanism used to lessen the consequence of different life stressors. Coping efforts are used to manage the demands created by or related to mental and physical health challenges (Skinner & Zimmer-Gembeck, 2007). Individuals with

CKD need to develop strategies to help them cope with the disease and lifestyle challenges (Schick-Makaroff et al., 2018).

Social support is the fulfillment of a person's social needs intended to enhance the well- being of an individual (Untas et al., 2011b). Social support has been found to alleviate the negative impacts of CKD on patients and associated with better survival, lower depression, and higher compliance to medication and CKD treatment regimen (Schick-Makaroff et al., 2018). Self-management is the process in which an individual assumes responsibility for their actions (Grady & Gough, 2018). Self-management of CKD is crucial to achieve positive health outcomes (Nguyen et al., 2019). Bandura (2001) defined self-efficacy as a personal judgment of how well one can execute courses of action when dealing with a probable situation. It is considered a critical attribute that is necessary for the individual with Stages 3 and 4 CKD to achieve successful self-management of the disease (Havas et al., 2016). Social support, self-management, and self-efficacy are factors that may influence how individuals with CKD cope with the disease (Ibrahim et al., 2015). My review of the literature did not identify studies that investigated the relationship among social support, self-management, self-efficacy, and coping in African American individuals with CKD. The present study addressed this gap in the literature. The results of this study have the potential to identify factors that may be used to empower patients with CKD Stages 3 or 4 to develop strategies to cope with the disease, slow its advancement, and lead to enhanced quality of life.

Purpose of the Study

The purpose of this quantitative cross-sectional study was to examine the relationships among self-management, self-efficacy, and coping behaviors in African Americans with CKD in Stages 3 or 4. In addition, I examined the moderating effect of social support on the extent to which self-management and self-efficacy account for the variance of coping behaviors in African Americans with CKD. The outcome variable was coping behavior. The predictor variables were self-management and self-efficacy. Social support was the moderating variable in this study. Social support positively influences chronic disease self-management (Hall et al., 2019). However, the extent to which it influences self-management behaviors in patients with CKD has not been examined. Understanding the impact among these variables has the potential to guide the development of programs to increase effective coping in African American individuals with CKD, slow the progression of the disease, and circumvent the need for dialysis.

Research Questions and Hypotheses

The following research questions and hypotheses were used to guide this study:

RQ1: What are the combined effects of self-management and self-efficacy on coping among African Americans in Stages 3 or 4 with CKD?

H_{O1}: There is no effect between self-management, self-efficacy, and coping among African Americans in Stages 3 or 4 with CKD.

H_{A1}: There is an effect between self-management, self-efficacy, and coping among African Americans in Stages 3 or 4 with CKD.

RQ2: Does social support moderate the relationship between self-management and coping among African Americans in Stages 3 or 4 with CKD?

H_{O2}: Social support has no moderating effect on the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD.

H_{A2}: Social support has a significant moderating effect on the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD.

RQ3: Does social support moderate the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD?

H_{O3}: Social support has no moderating effect on the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD.

H_{A3}: Social support has a significant moderating effect on the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD.

Theoretical and/or Conceptual Framework for the Study

The theory used to guide this study was the social learning theory (SLT) or, as it was later called, the social cognitive theory (SCT). The theory was developed in 1960 by Albert Bandura (Bandura, 2001). Bandura's approach provided a unified theoretical framework for analyzing human behavior psychological processes (Bandura, 2001). Self-efficacy is the level of confidence that a person shows to complete specific tasks and the expectation that the desired outcome will be achieved (Kahe et al., 2018). Individuals' beliefs in their own self-efficacy influence whether they replicate an observed behavior (Charles & Ferris, 2020). Individuals with CKD have to make lifestyle changes to limit progression of their condition (Sevick et al., 2018) The theory's goal is to explain how

behavior develops, how it is maintained, and how it can be modified. SLT suggests that behavioral change is influenced by the individual's beliefs in their compacity to overcome conflicting demands to achieve desired outcomes (Bandura, 2001).

Bandura's SLT can be used to understand how determinants may influence individuals' behavior with CKD in Stages 3 or 4. The change in patients' lifestyles in Stage 3 or 4 CKD may be challenging and affect their psychological well-being (Rees et al., 2018) These challenges may influence their thoughts and beliefs about their experiences with CKD and their motivation to respond positively. Bandura's model explains expectancies as beliefs about how events are connected, consequences of one's actions, and competencies to perform the behavior needed to influence the outcome. Thus, the beliefs of the individual with CKD about their ability to deal with the challenges they experience may influence their ability to cope with the disease. Understanding how social support, self-management, and self-efficacy are related to patients in Stages 3 or 4 CKD coping behaviors can guide the development of programs for this population that have the potential to help them develop positive coping strategies that may slow the progression to Stage 5 CKD and an improved quality of life.

Nature of the Study

This study used a quantitative cross-sectional design to examine the relationship among self-management, self-efficacy, and coping behaviors in African Americans in Stages 3 and 4 CKD. In addition, I examined the moderating effect of social support on the extent to which self-management and self-efficacy account for the variance of coping behaviors in African Americans in Stages 3 and 4 CKD. A quantitative design helped the

researcher make inferences about relationships among the variables and how the sample results may be generalized to a broader population of interest (Creswell & Creswell, 2018). Data were collected in a cross-sectional design at one point in time (Creswell & Creswell, 2018). A regression approach was used to describe and measure the impact or affect that occurs between two or more variables (Creswell & Creswell, 2018). An experimental design was not conducive for this study because it systematically manipulates one or more variables to evaluate how this manipulation impacts the outcome of interest (Creswell & Creswell, 2018).

The variables that were examined in this study included self-management, self-efficacy, and coping. Research Question 1 was looking for the cumulative effects of the predictor variables of self-management and self-efficacy on the outcome variable of coping. The target population for the research questions are African Americans with CKD disease. The moderator tested was social support. The predictor variable for Research Question 2 is self-management, the moderator being tested is social support, and the outcome variable is coping. The predictor variable for Research Question 3 is self-efficacy, the moderator being tested is social support, and the outcome variable is coping. The quantitative cross-sectional design aligns with the study and was used to examine the impact among self-management, self-efficacy, and coping behaviors in African Americans in Stages 3 and 4 CKD. Regression analysis was used for this study for estimating the effects between the outcome and predictor variables with findings showing how much the outcome variable changes when the predictor variable is unchanged (Creswell & Creswell, 2018). Recruitment took place through information

flyers and postcards distributed in a hypertension/ nephrology clinic. Informed consent and the survey was completed using the software, Survey Monkey (https://www.surveymonkey.com). Once all surveys were collected. I uploaded the results to IBM SPSS Statistics for Windows (Version 27) for data analysis.

Definitions

African American is an individual from African decent that resides in the United States and calls it their home (Jackson & Cothran, 2003).

Coping is a response mechanism used to alleviate the effect of different life stressors on physiological responses (Subramanian et al., 2017). Coping strategies include cognitive restructuring, social support, express emotion, and problem solving/avoidance (Subramanian et al., 2017). Effective coping allows the individual to have greater control of the challenges they encounter to effectively achieve their desired health outcome.

Social support is defined as a composite concept including attachment intimacy, social integration, nurturance, the reassurance of worth, and availability of assistance (Baqutayan, 2011). It is also identified as a psychosocial mechanism that moderates stress-related health disparities (Bandura, 2001)

Self-management is the process in which an individual assumes responsibility for their wellbeing and actions (Grady & Gough, 2018). This term can be used interchangeably with self-care and self-control (Nguyen et al., 2019).

Self-efficacy is the level of confidence that a person shows to complete specific tasks and the expectation that the desired outcome will be achieved (Kahe et al., 2018). Individuals are thus able to adjust their behavior to achieve the desired results.

Chronic kidney disease (CKD) is an abnormality in kidney structure and function and results in a decreased GFR of <69 ml/min (Webster et al., 2017).

Assumptions

Assumptions are prediction-based decision making. It is any kind of condition involved in a problem-solving method's applicability, including its required domain knowledge (Mitchell et al., 2021). It may be based on accepted knowledge or personal beliefs and values. This study includes several identified assumptions. One assumption is that CKD patients in Stages 3 and 4 both possess characteristics of the disease and have the desire to implement strategies to decrease the progression of the disease. It is also assumed that the individuals with CKD Stages 3 and 4 provided honest responses to the survey questions. I reassured them that the information they provided would be confidential.

Scope and Delimitations

The purpose of this quantitative cross-sectional study was to examine the effects of the independent variables of self-management and self-efficacy, on coping behaviors in African Americans with CKD in Stages 3 or 4. In addition, I examined the moderating effect of social support on the extent to which self-management and self-efficacy account for the variance of coping behaviors in African Americans with CKD. Participants excluded from participation in the study included individuals who do not self-identify as

African Americans and individuals who are outside of Stages 3 and 4 with CKD and are not patients at the hypertension/nephrology clinics in the Southeastern region of the United States.

Limitations

There are potential limitations in this research. Among the possible limitations were time and access to technology. The participants may not have had the time to complete the surveys and they may not have had the technology available to access the surveys. The second assumption related to generalizability. The sample for this study was recruited from one hypertension/nephrology clinic. The results obtained from the participants in this study are only a representation of the African American population with CKD served by this clinic; this decreases the ability to generalize to all African American participants with CKD. The participants described their level of CKD; I was not able to confirm their self-report with medical records. Another limitation involved data representations. A non-random sampling technique was used. Therefore, the data obtained may not represent all African Americans with CKD in Stages 3 or 4, and therefore, generalization was limited. The participants selected the level of their CKD; it was assumed they knew the level of their disease. Lastly, as a novice researcher, my lack of familiarity with research methods and the lack of research experience posed a barrier. However, my dissertation committee guided me through this process.

Significance

CKD is a public health concern affecting approximately 26 million U.S. adults (Umeukeje et al., 2018).). CKD can progress from Stages 1 to end-stage renal disease

quickly in the African American population (Umeukeje et al., 2018). The reasons for this continued CKD progression in African Americans remains unknown and warrants further evaluation (Umeukeje et al., 2018). Social support, self-management, and self-efficacy are factors that may influence how individuals in Stages 3 and 4 cope with the disease. The cost of treatment for CKD patients is an issue for healthcare organizations and has a substantial economic burden on health care systems (Gordois et al., 2004). The results of this study have the potential for positive social change for three groups: patient in Stages 3 and 4 CKD, healthcare providers, and healthcare organizations. Empowering patients in Stages 3 and 4 CKD to understand self-care management strategies that can help them cope with the challenges associated with the disease has the potential to decrease the progression of the disease and increase their quality of life. The potential findings of my study may facilitate understanding the impact between the variables having the potential to halt disease progression from Stage 3 or 4 CKD to Stage 5, or end-stage, renal failure. In addition, my study may guide practitioners to design programs to foster coping strategies that have the potential to slow or prevent the progression of the disease in patients with CKD.

Summary

CKD is a public health concern affecting approximately 26 million adults in the United States (Umeukeje et al., 2018). The disease progresses faster in African Americans compared to other groups (Umeukeje et al., 2018). The purpose of this quantitative cross-sectional study is to examine the relationship among self-management, self-efficacy, social support, and coping in African Americans in Stages 3 and 4 of CKD.

The research questions and hypotheses were used to determine whether there is an association between the outcome and predictor variables. The theoretical framework that guided this study was Bandura's SLT. The theory's objective explains how behavior develops, how it is maintained, and how it can be modified. SLT can be used to assess how a person's behavior is influenced by the type of effect of an outcome. Chapter 1 also includes common definitions that are throughout the paper, assumptions, scope, and delimitations as well as the significance of the study. The results of this study can guide practitioners to design programs to foster coping strategies in African Americans in Stages 3 or 4 CKD and potentially slow or prevent the progression of the disease. In Chapter 2, I provide a review of the literature, including a description of the literature search strategy, further discussion of the theoretical foundation, and a literature review related to key variables included in this study.

Chapter 2: Literature Review

CKD remains a significant problem for African Americans, and there is still room for improvement for the consideration of chronically ill patients (Harding et al., 2017). The disease cannot be cured, but the progression can be slowed down. However, some individuals diagnosed with CKD are not able to respond appropriately to the changes they experience with the disease. The intent of my research was to identify strategies to help African Americans with CKD in Stages 3 or 4 cope. The primary purpose of this quantitative cross-sectional study was to examine the relationship among social support, self-management, and self-efficacy behaviors in African Americans with CKD in Stages 3 or 4. Findings generated from this study have the potential to contribute to a deeper understanding of coping strategies used by African Americans diagnosed with CKD in these stages. Identification of coping strategies can serve as the basis for program development to aid in slowing the progression of the disease and thus circumventing the need for dialysis. In this chapter, I discuss the literature search strategy, theoretical framework, and the literature review of the following study variables: social support, self-management, and self-efficacy.

Literature Search Strategy

The following databases were searched within the Walden University Library for supporting literature: PubMed Central, CINAHL, EBSCO host, Sage Journals, Science Direct, Springer Link, PLOS Pub Health, ProQuest Nursing, and Google Scholar. The key search terms were *African Americans, black, awareness, End-stage renal disease, perception, knowledge, barriers, coping, social support, self-manage,* and *self-efficacy.* I

combined the terms and added phrases that included *among African Americans* and *chronic kidney diseases*. The publication date range included 2001 to 2018. The search terms were carefully selected as the best strategy to ensure that sources obtained reflect the study's objective and purpose. In addition, I also searched for related dissertation studies using the Walden University library. The total number of articles retrieved using CKD and AA as search terms were 666. I narrowed down the list using the above key search terms and removed duplicates. Fifty-three peer-reviewed articles were used to inform the study.

Theoretical Foundation

Bandura's SCT was chosen to understand the relationship among the study variables. Bandura's theory was initially called the social learning theory in 1960. In 1986, he changed the name to the SCT because he wanted to emphasize the role cognition plays in understanding behavioral changes (Bandura, 2001). Bandura argued that human behaviors are caused by personal, behavioral, and environmental influences. According to Bandura, moral reasoning, in conjunction with other psychosocial factors, governs ethical conduct. The theory provides a framework for understanding human behavior from a social and psychological perspective. The theory's goal is to explain how behavior develops. Therefore, the SCT is evident in the way researchers seek to understand society and how the theory impacts human beings from different perspectives, including their health in general.

Additionally, Bandura's theory relates to health promotion and disease prevention. These factors are instrumental in acknowledging that coping is a problem

when an individual is diagnosed with a disease. For instance, individuals with CKD in Stages 3 and 4 can have trouble coping, resulting in disease progression and poorer health prognosis. Based on the SCT, emotional well-being as well as the self-regulation of health habits are impacted by self-efficacy (Bandura, 2001). Self-efficacy is a patient's confidence in their ability to adhere to the treatment and manage their disease (Laster et al., 2018). SCT was chosen to help identify factors that affect behavioral changes in patients with CKD because how well they cope can result in the degree to which the disease progresses. The use of the SCT is critical in understanding the relationship between self-efficacy and coping in African Americans with CKD in Stages 3 and 4.

Many researchers have applied Bandura's SCT as a framework for health promotion and disease prevention (Boyer, 2020; Mosley, 2000; Offiah 2021). Based on the theory's premise that a dynamic and reciprocal interaction exists between a person's behavior and environment. LaMorte (2019) and, Offiah (2021) investigated to what extent gender, diet, age, exercise, socioeconomic status, diabetes, and hypertension were associated with the prevalence of CKD among African Americans in Maryland compared to individuals with CKD in six other Centers for Disease Control and Prevention (CDC) states. The results identified that all predictor variables were significantly associated with CKD.

In another study guided by SCT, Bouyer (2020) studied the relationship between medical skepticism and health outcomes in African Americans with Type 2 diabetes. Bouyer addressed how medical doubt may affect health outcomes, precisely kidney problems in African Americans. The results indicated a relationship between medical

doubt, age, eye, and kidney problems. These results are supported by one of the critical components of the SCT that suggests people learn from their own experiences and others' behaviors, attitudes, and outcomes of those behaviors (Bandura, 2001) The theory suggests that people behave based on their expectations of an outcome (Bandura, 2001). For example, in another study, Moseley (2000) used the SCT as an explanatory model to influence the functional status and explain the nutritional influence of environment, self-efficacy, and behavior among older adults diagnosed with chronic illness. This research aligns with my current study in that it examined health behaviors using the SCT.

Literature Review Related to Key Variables and Concepts

The purpose of this study is to identify and examine the effects between social support, self-management, self-efficacy, and coping behaviors in African Americans with CKD in Stages 3 and 4. In this section, I discuss each of the concepts related to the study topic in detail.

CKD

CKD is a decline in kidney function where the kidneys are unable to filter wastes and fluid from the bloodstream. As the GFR declines, the individual begins to experience water and electrolytes retention. The decline causes a decrease in hormone production and filtration. The damage resulting from CKD can cause toxins to build up resulting in the individual developing organ damage (Georgianos & Agarwal, 2020). There are five stages of CKD. In Stages 1 and 2, the individual diagnosed with CKD may be asymptomatic, and the GFR range between 60 and 90 ml/min. In Stages 3 and 4, the individual's GFR decreases and ranges between 59 and 29 ml/min. Patients with CKD

are at risk for cognitive impairment, anemia, hypertension, and bone disease. The individual may then experience shortness of breath, hypertension, fluid retention, bone pain, and peripheral neuropathy (Charles & Ferris, 2020).

This research focuses on Stages 3 and 4. These stages can be slowed with lifestyle modifications (Weiner, 2007), but this condition cannot be cured. Treatments to help slow the progression include preventing and treating complications of a decrease in GFR, reducing cardiovascular risk factors and preventing, and treating complications associated with diabetes (Levey et al., 2009). However, if left untreated, kidney function will eventually deteriorate and have limited functionality. In Stage 5, the GFR is less than 15%, resulting in the need for renal dialysis or renal transplant.

Social Support

SCT highlights the importance of social support and social connectedness in maintaining and initiating behavior change (Martin & Guerrero, 2020). Social support includes attachment intimacy, social integration, nurturance, the reassurance of worth, and assistance availability (Weinert & Brandt, 1987). Social support has been shown to positively impact health outcomes (Kelly et al., 2017); it is one of the most reliable factors associated with fewer negative and more positive outcomes (Guilaran et al., 2018). For example, Hall et al. (2019) investigated the association of social support and medical care among African Americans who suffer from CKD. Those with low functional and structural social support were not more likely to have CKD; however, those with higher self-esteem were more likely to be associated with lower prevalence of CKD. Additionally, researchers concluded that chronically ill patients are dependent on

structural and functional support within the healthcare institutions to cope with their condition. Therefore, though social support is a psychosocial factor that can contribute to CKD (Ibrahim et al., 2015), adequate social support is associated with a lower risk of morbidity and mortality in the general population (Sims et al., 2011) Social support can be instrumental in improving the ability to acquire and understand medical information (Chen et al., 2018). Further, African Americans' social support has been shown to protect against the long-term health effects of stress including improved glycemic control and blood pressure (Coulon & Wilson, 2015). Thus, social support is important for people to facilitate healthy behaviors.

Self-Management

Self-management is the process in which individuals assume responsibility for their well-being and actions (Grady & Gough, 2018). The desired outcome of self-management support is behavioral change. An individual's ability to detect and manage symptoms, treatment, physical and psychosocial consequences, and the lifestyle changes (e.g., exercise and diet) inherent in living with a chronic condition is the core of self-management (Salemonsen et al., 2020). Self-management allows individuals to control their thoughts and actions (Newman et al., 2004).

Self-management programs have been applied to chronic disease education programs, which are designed to delay deteriorating kidney functions, preclude depression, and improve quality of life (Lee et al., 2016). Researchers have acknowledged that self-management education contributes to slowing the progression of CKD and improving health outcomes (Nguyen et al., 2018). Information is provided to

improve patients' knowledge and confidence to better self-manage the disease, which is likely to affect their overall health and well-being. Additionally, sustained behavioral change is key to successful disease management, which is an important part of self-management as the basis of treating chronic diseases and preventing or reducing the severity and complications (Donald et al., 2019). Self-management is also influenced by social support, allowing the individual to optimize their independence and achieve improved health.

Self-Efficacy

Self-efficacy is the level of confidence that a person shows to complete specific tasks and the expectation that the desired outcome will be achieved (Kahe et al., 2018). Individuals are thus able to adjust their behavior to achieve the desired results. According to Bandura (2001), the first proponent of self-efficacy is the product of experience, observation, persuasion, and emotion. Self-efficacy entails a person's attitudes, abilities, and cognitive skills. Additionally, it plays a role in how individuals perceive situations and how they behave in response to different circumstances. Individual differences and past experiences are integral components of self-efficacy formation.

Self-efficacy can affect how people manage their health and well-being. Patients with high self-efficacy can improve their health outcomes (Wells & Anderson, 2011). The main goals in chronic disease care are maintaining function, avoiding deterioration, and preventing complications (Wu et al., 2016), but effective management of any chronic illness places demands on patients to make lifestyle and behavioral changes (Thombs et al., 2017). Patients with CKD face additional challenges due to gaps in knowledge about

their disease and its treatment. Consequently, improving self-efficacy is an essential factor for disease management (Wells & Anderson, 2011).

For CKD patients, self-efficacy has been positively correlated with self-care (Bağ & Mollaoğlu, 2010). Curtin et al. (2008) examined the correlations among self-efficacy, physical/psychological function, and self-management in 174 CKD patients and found that self-efficacy was significantly related to improvements in communication with healthcare providers and self-care behaviors (Curtin et al., 2008). Curtin et al. also found that self-efficacy can help patients manage their health behaviors. It may lead to stronger motivation for self-management and help patients make the right decisions in promoting healthy behaviors.

Coping

Coping is a response mechanism used to alleviate different life stressors on physiological responses (Subramanian et al., 2017). It is a conscious effort to solve personal and interpersonal problems to minimize stress and discomfort. The process of coping is influenced by several factors, including illness, social support, personality, and demographic variables (Petrie & Jones, 2019). Coping is essential because it increases resilience and helps people learn how to handle emotions and difficult situations.

Individuals with CKD have issues coping with the disease's manifestations (Yucens et al., 2019). Patients with CKD endure physical discomfort related to their illness and must face stressors and family challenges, which increases the risk of depression (Liu et al., 2017). Research has shown lower levels of hope and higher levels of depression in patients with CKD, though social support can have a positive effect that

lowers depression and increases hope (Yucens et al., 2019). Further, self-efficacy and social support can influence coping behavior (Schmidt-Busby et al., 2019).

Summary and Conclusion

In Chapter 2, I identified the literature search strategy, provided a review of the theoretical foundation, including application to current studies and a literature review of my variables and concepts. The review of the literature provided information regarding coping strategies used by individuals with CKD related to social support, self-management, and self-efficacy. This study is looking at how African Americans cope with CKD in Stages 3 or 4. Their coping response may impact how well they reduce further damage to their kidneys. In Chapter 3, I describe the research methods used in this study, including the design, variables, population, sampling, recruitment, data collection, instrumentation, data analysis, ethical considerations, and threats to validity.

Chapter 3: Research Method

The purpose of this quantitative cross-sectional study was to examine the effects of the independent variables of self-management and self-efficacy, on coping behaviors in African Americans with CKD. In addition, I examined the moderating effect of social support on the relationship of self-management and self-efficacy to coping behaviors in African Americans with CKD. Understanding the relationship among these variables has the potential for guiding the development of programs to increase effective coping in African American individuals with CKD, slow the progression of the disease, and circumvent the need for dialysis. In this chapter, I present the research design for this study including methodology, instrumentation, data analysis plan, threats to validity, and ethical procedures.

Research Design and Rationale

This study used a quantitative cross-sectional design to examine the relationship among study variables. A quantitative design helped the researcher make inferences about relationships among the variables and how the results may generalize to a broader population of interest (Creswell & Creswell, 2018). The variables are self-management, self-efficacy, and coping. The moderator variable tested in this study was social support. Social support positively influences chronic disease self-management (Hall et al., 2019). However, the extent to which it influences self-management and self-efficacy behaviors in patients with CKD has not been explored. The predictor variables are self-management and self-efficacy. The outcome variable is coping. Using a cross-sectional design, data were collected at a single point in time (see Creswell & Creswell, 2018). The statistical

procedure used for my study was regression analysis. Regression analysis was appropriate for my research because it allowed me to evaluate the relationship between two or more variables. Therefore, regression analysis was used to determine how much the dependent variable changes when the independent variable is changed (Creswell & Creswell, 2018).

Regression analysis aligned with my research questions because this statistical procedure is designed to estimate the effect or impact between the predictor and outcome variables (Creswell & Creswell, 2018). The primary focus of this quantitative study was to assess three variables related to coping that are present in African Americans in Stages 3 or 4 CKD. The objective of conducting regression analysis was to discover whether a significant effect or impact exists among the selected variables. In addition, I examined the moderating effect of social support on the extent to which self-management and self-efficacy account for the variance of coping behaviors in African Americans with CKD. The goal for this study was to identify variables that can influence coping and its relationship or impact to the identified variable. I chose a quantitative approach using regression analysis as the best fit to answer the research questions and meet the purpose of the study. The quantitative method also provided an approach for determining the influence of the chosen coping variables in African Americans with CKD in Stages 3 and 4. The design choice is consistent with research designs needed to advance knowledge in the discipline because it addresses the needs of African Americans within the CKD population. A quantitative quasi-experimental design was considered; however, it was not

appropriate because this research design is for an intervention study in which subjects are not randomly assigned to treatment conditions (Polit & Beck, 2015).

Methodology

In this section, I discuss the population, sampling and sampling procedures, procedures for recruitment and data collection, instrumentation, and operationalization of the constructs. I also discuss the data analysis plan.

Population

Participants were recruited from the target population, CKD patients in Stages 3 or 4. The approximate size of this target population is over 400,000 with 54% being African American (U.S. Census Bureau, 2019). The study focused on variables that influence coping behaviors of this population. It is appropriate to use CKD patients in Stages 3 or 4 because symptoms, such as shortness of breath, peripheral edema and high blood pressure can progress or decline based on patient coping abilities (Washington et al., 2016).

Sampling and Sampling Procedures

Participants were selected through purposive convenience sampling. African Americans have the highest percentage of CKD compared to Asians, Hispanics, and Caucasians (Hounkpatin et al., 2020). I included participants diagnosed with Stages 3 or 4 CKD. Convenience sampling was used to recruit African Americans from a local hypertension/nephrology clinic in the Southeastern United States to see if coping impacts disease progression. The inclusion criteria for selecting participants were African Americans diagnosed in Stages 3 or 4 with CKD and ages 20 years or older. Participants

excluded from participation in the study were individuals with CKD outside of Stages 3 or 4 of the disease and individuals who are not African American. Additionally, individuals under 20 years of age were excluded.

I used G* Power software developed by Erdfelder et al. (1996) to determine the sample size. The statistical test multiple linear regression analysis was used for my study. The basis for the significance is .05 expressed as a percentage of the estimate, the confidence power level of 80, and an effect size of 0.15. Using this criterion, I established that a minimal sample size of 68 participants for each research question was required to demonstrate a correlation between the three predictor variables of this study.

Recruitment, Participation, Consent, and Data Collection

Recruitment

The target population for the study was African Americans with CKD. Patients was recruited through the local nephrology/hypertension clinic in the southeast region of the United States. I posted recruitment flyers in the office lobby with information about my study and the dates on which the study started and ended. In addition, front office staff handed out postcards with the recruitment information to the patients after their appointment. The links to the survey were posted on the information flyers. Patients who were interested in completing the survey completed an online consent form. Participants who met the inclusion criteria completed the survey in a private setting of choice. If they had any questions, my name and phone number was on the recruitment information flyer and postcard for them to contact me.

Participation

For patient ease, I posted the surveys on Survey Monkey. When the participants reviewed the survey, the first page was the eligibility page, which included the inclusion criteria. Participants who did not meet the inclusion criteria did not proceed with the survey. Participants who met the eligibility requirements were directed to the informed consent page. Upon indicating their consent by electronically agreeing to the consent form, the participant proceeded to the online surveys. Upon survey completion, participants had the opportunity to provide an email address to receive a $5 Chick-Fil-A electronic gift card.

Consent

The informed consent included information on the purpose of the study, the goals or aims of the study, and a statement about the voluntary nature of the study. The informed consent included a statement about the confidentiality processes, including how records are secured and destroyed, and an explanation of the benefits and risks of participation in the study. An electronic signature was needed to continue to the surveys. The next section of the survey included a demographic questionnaire (see Appendix A), comprised of questions on (a) age, (b) gender, (c) ethnicity, (d) education, and (e) how long they have had CKD. The final section of the questionnaire involved completing the four scales: the Brief Resilient Coping Scale (BRCS), Self-Management Ability Scale (SMAS), Self-Efficacy Scale (SES), and Multidimensional Scale of Perceived Social Support (MSPSS).

Data Collection

The participants received an email with the link to the survey once it had been determined that the inclusion criteria to participate in the study are met. I collected the data using the online survey program Survey Monkey for 3 weeks or until the suggested sample size is met. To analyze the results, I generated a report to assist with analysis and trends. The report was shared with the statistician and uploaded to IBM SPSS Statistics for Windows (Version 27) for data analysis. Any identifying information such as IP addresses was separated from the survey data through the anonymous response option available in the Survey Monkey program. The raw data were stored as a personal file on a password-protected flash drive to be secured for a period of 5 years.

Participants Exiting the Survey

Participation in the survey was voluntary. I had informed the participants that they may exit the study at any time if they did not wish to complete it. My contact information was on the research information flyer and postcard if they had any questions, comments, or concerns at the end of the survey.

Instrumentation and Operationalization of Constructs

As described above, data for this study were collected through a demographic questionnaire (see Appendix A) and the four following survey instruments: the BRCS (Sinclair & Wallston, 2004), the SMAS (Cramm et al., 2012), the SES (Gandoy-Crego et al., 2016), and the MSPSS. The estimated amount of time to complete all four survey instruments was 45 min.

Demographic Survey

Demographic information (see Appendix A) were collected on the participants' age and gender, ethnicity, education, and how long they have had CKD. Individuals with a decline in GFR are referred to the nephrology/hypertension clinic. Thus, sorting individuals with CKD by age could play a role in disease outcomes (Obi et al., 2010). The gender variable was used because population-based studies indicate that CKD epidemiology differs by sex, affecting more women than men (Carrero et al., 2018). Therefore, the demographic data is used for the sole purpose of describing individuals with CKD in Stages 3 or 4. Once the demographic data were collected, descriptive statistics were used to analyze each of the demographic questions in the survey. Findings on demographic data are presented in Chapter 4 in table and narrative format. The purpose of this analysis was to determine the representative nature of the population.

The BRCS

The BRCS is a four-item rating questionnaire that identifies the individual's tendencies to cope using a Likert-type scale (Sinclair & Wallston, 2004) . Sinclair and Wallston (2004) created the BRCS to capture how an individual copes with stress. The statements are based on a 5-point scale, where 1 means the statement does not describe you at all and 5 means the statement describes you very well. Fung (2020) conducted a cross-cultural examination of the psychometric properties of the six-item Brief Resilience Scale (BRS) and the four-item BRCS. For this cross-sectional research, Fung recruited 511 Chinese university undergraduate students. The researcher was comparing the undergraduate student's wellbeing optimism, self-esteem, self-efficacy, and mental

health. Cronbach's alpha ranged from 0.71 to 0.85 with the BRS showing stronger internal consistency than the BRCS (Fung, 2020). Thus, the results suggest that both scales have good criterion validity, with well-established measures of well-being, optimism, self-esteem, self-efficacy, and mental health.

The approximate time for completion of the BRCS is 5 minutes. Upon using the APA Psych test search via Walden University Library, I found that permission for use of the BRCS is granted for educational purposes without seeking written permission. Nonetheless, the author's permission to use the scale is included as Appendix B.

The SMAS

The SMAS, created by Cramm et al. (2012), measures an individual's self-management abilities, which is one of the predictor variables in the current study. The SMAS was appropriate for my study because self-management skills are the abilities that allow people to control their thoughts, feelings, and actions (i.e., stress; Donald et al., 2019). The diagnosis of a chronic disease can be stressful and challenging. Therefore, management abilities are essential for maintaining healthy habits. The SMAS is an 18-question assessment scale that distinguishes six self-management abilities (Cramm et al., 2012). The objective of the scale is to validate self-management ability in individuals with Stages 3 or 4 CKD. The six abilities addressed in the SMAS include having a positive frame of mind, being self-efficacious, taking initiative, investing in resources for long term benefits, and taking care of resources (Cramm et al., 2012). Scores for the SMAS scores range between 5 to 30, with higher scores indicating higher self-management abilities. Cramm et al. (2012) conducted a study to see if the use of

community nurses improves self-management and quality of life for frail individuals in the Netherlands. Community nurses administered the questionnaire and 2014 individuals participated to identify the relationship between self-management and quality of life. The results showed a relationship between self-management and quality of life. Additionally, it showed that, with the nurse's involvement, both self-management and quality of life improved. The approximate time for completing the SMAS is 15 minutes. The APA Psych test search via Walden University Library revealed that permission for use is granted for educational purposes without seeking written permission (see Appendix C).

The SES

The SES was created by Chen et al. (2001) to assess perceived self-efficacy for coping with challenges or threats. Self-efficacy is a predictor variable in my study. The SES is important for my study because self-efficacy plays an important role in how people manage their health and illnesses (Chen et al., 2001). The SES assesses how much an individual believes they can achieve goals despite difficulties (Gandoy-Crego et al., 2016). The SES is a 10-question rating assessment tool requiring approximately 5 minutes to complete. The response format is a Likert type scale that ranges from 1 to 4 (i.e., 1 = *totally disagree,* 2 = *disagree,* 3 = *agree,* and 4 = *totally agree*). The total score of the SES ranges between 10 and 40 points. Gandoy-Crego et al. (2016) designed the self-efficacy and health scale. Individuals were interviewed in Spain using the questionnaire. Statistical analysis determined reliability, and where the SES scale was effective in detecting changes in the use of specific health resources. The reliability and validity of the 10-item coping and self-efficacy scale of health problems were confirmed.

Reliability for the SES scale was .779. There was no significant correlation between health-related self-efficacy or overall self-efficacy and satisfaction. Thus, the results of the study revealed the two self-efficacy scales were significantly correlated, confirming the validity of the SES scale. Written permission to use the scale was obtained from the author Gandoy-Crego (see Appendix D).

The MSPSS

The MSPSS, created by Zimet (1988), was designed to measure perceptions of support from family, friends, and a significant other. Social support is a moderating variable in my study. MPSS is vital for my study because having a significant relationship and support can improve a patient's physical and psychological health. The MSPSS measures social support (Zimet, 1988). The scale, comprised of a total of 12 items, is a measure of perceived adequacy of social support. The total score range is 12 to 84. The higher the score, the higher the perceived social support. Ramos et al. (2017) used the MSPSS to analyze social support in 991 early Spanish retirees enrolled in a university program. The reliability and validity indicators were above .92, and the correlation between perceived social support was positive (López Ramos et al., 2017) . The average time to complete the MSPSS is 15 minutes. The scale is free to use (see Appendix E**)**.

Operationalization

The following variables were used for my study: social support, self-management, self-efficacy, and coping. The predictor variables are self-management and self-efficacy. The moderating variable is social support. Coping is the outcome variable. Social support

has been defined in the literature as the assistance and protection given to others (Shumaker & Brownell, 1984). Previous studies have operationalized social support in terms of an individual's perception or experience of affection, care, value, belonging, assistance in connection with other persons (Flessner et al., 2009). Self-management can be explained as the ability to manage symptoms, treatments and lifestyle changes needed to live with a chronic condition (Barlow et al., 2002). Previous studies have operationalized self-management as the ability to achieve health outcomes, make balanced decisions, and have the motivation to achieve desirable and positive outcomes (Ruger, 2010).

Self-efficacy is a strong perception and a source of motivation that drives individuals to overcome challenges and ultimately succeed (Bandura, 2001). Previous studies have operationalized self-efficacy in terms of participating in occupational roles with maximum independence, resumption of occupational roles, and improvement of functional skills (Soeker, 2016). Coping is a response mechanism used to alleviate the effect of different life stressors on physiological responses (Subramanian et al., 2017). Previous studies have operationalized coping in terms of a set of behavioral and cognitive responses to stressful situations (Petrie & Jones, 2019).

Data Analysis Plan

Research Questions and Hypothesis

The following research questions and hypotheses were used to guide this study:

RQ1: What are the combined effects of self-management and self-efficacy on coping among African Americans in Stages 3 or 4 with CKD?

H_{O1}: There is no effect between self-management, self-efficacy, and coping among African Americans in Stages 3 or 4 with CKD.

H_{A1}: There is an effect between self-management, self-efficacy, and coping among African Americans in Stages 3 or 4 with CKD.

RQ2: Does social support moderate the relationship between self-management and coping among African Americans in Stages 3 or 4 with CKD?

H_{O2}: Social support has no moderating effect on the relationship between self-management and coping among African Americans in Stages 3 or 4 with CKD.

H_{A2}: Social support has a significant moderating effect on the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD.

RQ3: Does social support moderate the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD?

H_{O3}: Social support has no moderating effect on the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD.

H_{A3}: Social support has a significant moderating effect on the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD.

To answer research question 1, multiple regression analysis was used to examine the effect of the variables self-management, self-efficacy, on coping among African Americans in Stages 3 or 4 with CKD.

To answer research question 2, regression analysis was used to examine the relationship between self-management moderating between self-efficacy and coping.

To answer research question 3, regression analysis was used to examine the relationship between social support moderating between self-efficacy and coping.

Analysis Plan

Participants who did not meet inclusion criteria were excluded from the study by the screening questions before accessing the surveys. The data was cleaned by filtering and excluding incomplete survey responses before downloading the data from SurveyMonkey.

After uploading the data into the SPSS software, I first cleaned the data by examining and mitigating the effects of missing data and outliers; I also examined the data for adherence to the underlying assumptions of multiple regression analysis including multivariate normality, homoscedasticity, linearity, and normality and independence of residuals (Field, 2013). I analyzed the descriptive statistics using the information from the demographic survey. The descriptive statistics provided mean scores for the different demographic variables. I then use regression analysis to address the research questions for this study. The significance level was set at $p < .05$ with a confidence level of 95% to reject the null hypothesis. Review of the *F*-ratio and significance in the ANOVA table helped to determine if the regression model is a good fit for the data and if the independent variables statistically significantly predict the dependent variable. The Model Summary table provided multiple *R*, R squared (R2) and adjusted R^2 which helped to determine proportion of variance in the dependent variable that can be explained by the independent variables (Laerd, 2021).

Threats to Validity

Validity is defined as obtaining data appropriate for the intended use of the measuring instruments (Whiston, 2005). Validity in quantitative research is determined by meaningful and appropriate interpretation of the data obtained from the measuring instruments as a result of data analyses (Sürücü & Maslakçi, 2020). It resides with the researcher's analysis of the results. Thus, validity refers to how well the results of a study measure what they are intended to (Rourke & Anderson, 2004). Therefore, the five instruments used in this research study align with the research questions and the variables being measured in this study.

External Validity

External validity determines whether causal relationships can be generalized to different measures, persons, settings, and times (Steckler & McLeroy, 2008).It examines whether the findings of a study can be generalized to other contexts (Andrade, 2018). Some limitations may threaten the external validity of this study. The first limitation that may occur involves the sample size. Using one location to obtain the sample size required may also be challenging. Another limitation consists of the data representation since I used non-random sampling.

Internal Validity

Internal validity considers if the study was designed, conducted, and analyzed to provide a level of trustworthiness for the answers provided to the research questions in the study, it is based on judgment and not statistics (Andrade, 2018). The research design used for this study is a quantitative cross-sectional design. Based on this type of design,

there is at least the potential for social desirability bias. The researcher tested the hypotheses and determine if there is a relationship among the variables. To address and limit the threats to internal validity, reliable and validated scales were chosen for the study. The instruments was used to determine if a relationship exists among the variables and participants coping responses.

Construct Validity

Construct validity determines whether operational variables adequately represent theoretical constructs (Steckler & McLeroy, 2008). Construct validity threats were minimized because of the use of validated and reliable instruments. Coping is a response mechanism used to alleviate the effect of different life stressors on physiological responses (Subramanian et al., 2017). Coping is the outcome variable. Social support is defined as a composite concept including attachment intimacy, social integration, nurturance, the reassurance of worth, and availability of assistance (Baqutayan, 2011). It is also identified as a psychosocial mechanism that moderates stress-related health disparities (Bandura, 2001). Social support is the moderator variable. Self-management is the process in which an individual assumes responsibility for their wellbeing and actions (Grady & Gough, 2018). It is a term that can be used interchangeably with self-care and self-control (Nguyen et al., 2019). Self-efficacy is the level of confidence that a person shows to complete specific tasks and the expectation that the desired outcome was achieved (Kahe et al., 2018). Both self-management and self-efficacy are predictor variables. The results are reported in Chapter 4.

Ethical Procedures

Access to Participants

Ethics is defined as one's personal beliefs regarding what is right or wrong or good or bad (Fischer, 2004). My plan is to contact the medical director from the local nephrology hypertension clinic in the Southeastern United States, regarding using this clinic for data collection for my dissertation. I posted information flyers and asked staff to distribute research information postcards to clinic participants. For those who express an interest in participating in the study, I followed up with an email describing my study and provided a link to the survey monkey that included my consent form and contact information if there were any questions.

Institutional Review Board

I obtained approval for the study design and procedures from the Walden University Institutional Review Board (IRB) before any contact is done and for recruitment purposes. There is one ethical concern that may arise during the recruitment process: the participants' willingness to participate in the study. The consent form validated that participation is optional and during the survey participants can opt-out not complete the survey at any time. The consent form also had my contact information and Walden's IRB office contact information if any questions or concerns should arise.

Ethical Concerns Related to Recruitment

I ensured that the participants remain protected during the consent for participation and recruitment process. The participants' protection and privacy was ensured and there were no identifiable information on the online survey. One ethical

concern relates to the participants willingness to participate in the study. The consent form states the participant can change their mind and or stop at any time. I took steps to ensure dignity and respect are provided to each participant. Additionally, I ensured that the participants are not harmed physically, mentally, or psychologically.

Ethical Concerns Related to Data Collection

There are no potential conflicts of interest or ethical concerns regarding data collection methods described in the study. I do not work in the setting where this study took place. There are no potential conflicts of interest known or ethical concerns regarding data collection. I obtained informed consent from the participants before data collection per Walden's IRB requirements. The informed consent was provided on the first page for the participants to read prior to starting the survey. It included the aim of the study, anticipated risk, benefits for participating, information storage and anonymity. The online study did not have any identifiable information on it thus protecting participant identity, privacy, and anonymity. The raw data will remain in my possession as a personal file on my password protected flash drive for five years, and after five years the data will be destroyed.

Data Treatment

Data Anonymity and Protection

The surveys were completed via Survey Monkey: therefore, I did not contact the participants while they were completing the survey. The point of contact was me for any questions or concerns. However, if the participant reaches me via email, I explained that I

could provide confidentiality but not anonymity on the informed consent page. An incentive for completing the survey was a $5 Chick Fil A gift card.

Summary

The research study used a quantitative, cross-sectional, correlation design. The survey instruments include a demographic survey, SMAS, SES, BRCS, and MSPSS. These instruments were used to measure the relationship among self-management, self-efficacy, coping behaviors, and social support in African Americans in Stages 3 or 4 CKD. A quantitative cross-sectional design was used to estimate the relationship between the outcome and predictor variables. Participants were selected through purposive convenience sampling that reflected a sample representative of the CKD population. Before data collection, the ethical approvals were obtained from the host organization and Walden University's IRB. The data analysis and results are discussed in Chapter 4.

Chapter 4: Results

The purpose of this quantitative correlational study was to examine the relationships among self-management, self-efficacy, and coping behaviors in African Americans with CKD in Stages 3 or 4. In addition, I examined the moderating effect of social support on the extent to which self-management and self-efficacy account for the variance of coping behaviors in African Americans with CKD. The following research questions and hypotheses were used to guide this study:

RQ1: What are the combined effects of self-management and self-efficacy on coping among African Americans in Stages 3 or 4 with CKD?

H_{O1}: There is no effect between self-management, self-efficacy, and coping among African Americans in Stages 3 or 4 with CKD.

H_{A1}: There is an effect between self-management, self-efficacy, and coping among African Americans in Stages 3 or 4 with CKD.

RQ2: Does social support moderate the relationship between self-management and coping among African Americans in Stages 3 or 4 with CKD?

H_{O2}: Social support has no moderating effect on the relationship between self-management and coping among African Americans in Stages 3 or 4 with CKD.

H_{A2}: Social support has a significant moderating effect on the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD.

RQ3: Does social support moderate the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD?

H_{O3}: Social support has no moderating effect on the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD.

H_{A3}: Social support has a significant moderating effect on the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD.

In this chapter, I present the data collection and results from the study.

Data Collection

Data were collected from September 30 through November 24, 2021. I recruited the participants through the local nephrology/hypertension clinic in the Southeast region of the United States. Response rates varied by week with the largest number of responses occurring in the first week in November.

I completed data collection within the Southeastern United States. The sample sizes for my study were determined using G*Power, indicating that 68 participants were necessary for adherence to the underlying assumptions of multiple regression analysis. A total of 74 participants met the inclusion criteria, with 74 participants completing the demographic questions and 70 participants completing the full survey. Those participants who met the inclusion criteria and responded, “yes, I agree to participate,” were given access to the additional 44 questions specific to the study: five demographic questions and 44 questions focused on the four survey instruments (i.e., the BRCS, SMAS, SES, and MSPSS). The completion time for the participants was estimated to be less than 45 minutes; actual completion time averaged 9 minutes. Upon completion of the survey, participants had the opportunity to provide an email address to receive an electronic gift card from Chick-Fil-A as a token of appreciation.

Results

Demographic Characteristics

In my study, the demographic characteristics of respondents to the recruitment materials were assessed. The demographic questionnaire was used to identify participants who met the inclusion criteria. The characteristics included age, gender, ethnicity, highest education, and length of time with CKD.

Screening of Potential Participants

The potential participants were asked their ethnicity: 7.55% were Caucasian, 92.45% African Americans, and 0.02% were Asian. Twenty potential participants were excluded from the study because they were not African American or because they refused to answer any of the demographic questions.

Descriptive Statistics

The demographics for the participants who completed the study are displayed in Table 1.

Table 1

Participant Demographics

Variable	*n*	%
Age		
19-20	0	0
21-41	25	36
41-60	25	36
Over 60	20	29
Gender		
Female	45	64
Male	25	36
Binary	0	0
Prefer not to say	0	0
Ethnicity		
Caucasian	0	0
African American	70	70
Hispanic	0	0
Asian	0	0
Prefer not to say	0	0
Education		
Some High School	0	0
High School	26	37
Some College	22	31
Finished College	18	26
Graduate	4	6
Length of time with chronic kidney disease		
1-2 years	24	34
3-5 years	22	31
5-8 years	20	29
Greater than 10 years	4	6

Note. $N = 70$. Due to rounding errors, percentages may not equal 100%.

Data Screening and Preparation

Prior to conducting the moderation analysis using multiple regression analysis, I examined the data and transformed them as necessary as necessary to meet the underlying assumptions of the statistical procedures. The underlying assumptions of multiple regression for moderation analysis and the steps taken to screen and prepare the data are described in the following subsections:

Check for and Remove Cases With Missing Data

Seventy-four people consented to the study; however, four participants had scores of 0 on all of the surveys indicating that the participants had not responded to any of the questions and were removed from the analysis. An additional participant answered only the SES, but none of the other surveys, and was also therefore removed from the analysis. This step led to a total sample size of 70 participants.

Check for and Remove Multivariate Outliers

Mahalanobis distances were calculated for each participant's survey scores and examined to determine the presence of multivariate outliers (Mertler & Vannatta, 2013). The critical value from the Chi-square table at the $p < .001$ and four degrees of freedom was 18.467. The presence of outliers would be determined based on Mahalanobis distance results greater than the critical value, all of the results were less than the critical value, so it was determined that no multivariate outliers were present in this dataset.

Check for a Normal Distribution and Linearity

Several steps were taken to examine the distributions of each variable. First, the Kolmogorov Smirnov and Shapiro-Wilk tests were calculated for each variable to

determine the presence of a normal distribution. According to the Kolmogorov Smirnov test, the SMAS scores were normally distributed, *K-S*(70) = .077, *p* = .200, as were the BRCS scores, *K-S*(70), *p* = .200. These results were confirmed through the review of the means, medians, and standard deviation for each variable as well as visual inspection of histograms (see Figures 1 & 2). The Kolmogorov-Smirnov test indicated that scores on the SES and MSPSS were not normally distributed, *K-S*(70) = .145, *p* = .001, and *K-S*(70) = .152, *p* < .001, respectively. This was confirmed based on visual inspections of the histograms (see Figures 3 & 4).

Figure 1

Histogram of Self-Management Ability Scale (SMAS) Scores

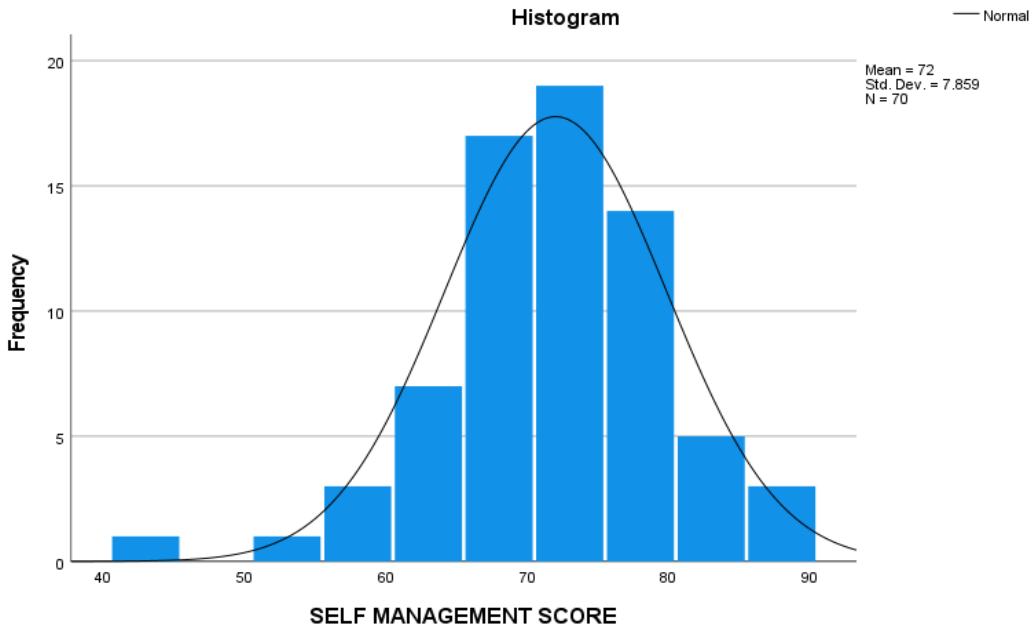


Figure 2

Histogram of Coping Scores on the Brief Resilient Coping Scale (BRCS)

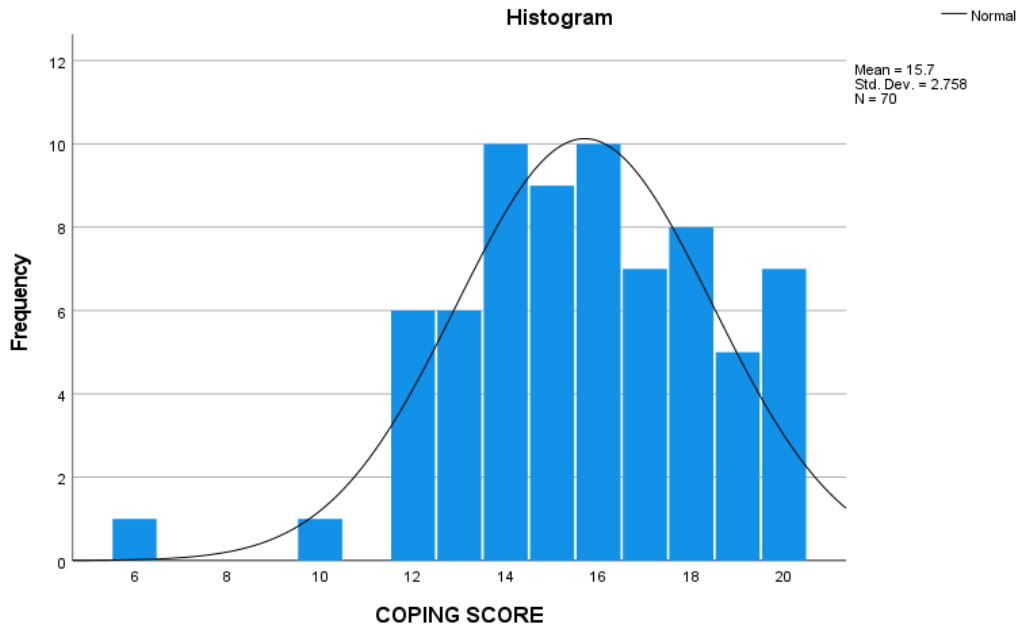


Figure 3

History of Scores on the Self-Efficacy Scale (SES)

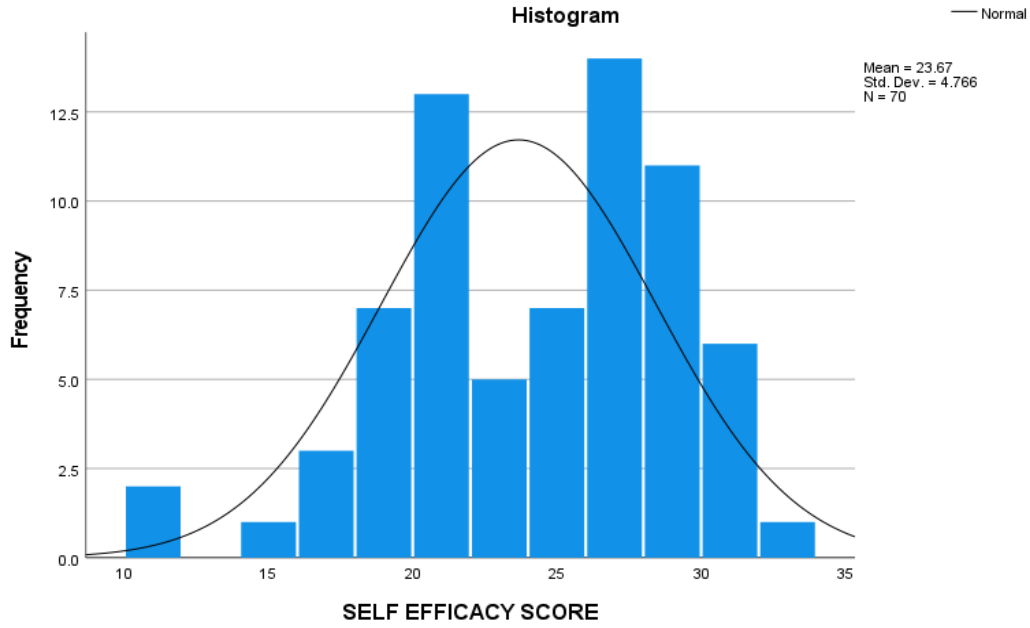
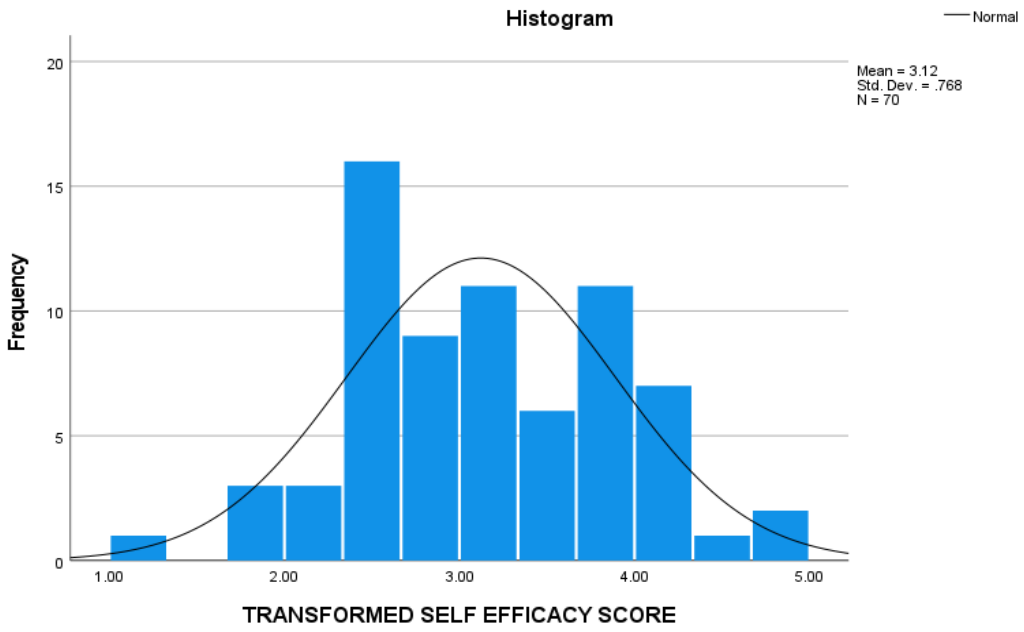


Figure 4

Histogram of Transformed Self-Efficacy Scores (TSES)



According to Bolin (2014) research has shown that only extreme violations of the Normality assumption affect the validity of the results of a regression analysis. Nonetheless, attempts to obtain an approximately normal distribution for the moderately skewed Self-efficacy (-.462) and Social Support (-.840) scores were made using data transformations based on the formulas recommended in Mertler and Vannatta (2013). Square-root transformations were performed on the SES data using the formula: TSES score = SQRT(35 – SES score). This transformation resulted in an approximately normal distribution of the SES scores which was confirmed through examination of histograms (see Figures 4 & 5) and a Shapiro-Wilk test for normality, *S-W*(70) = .977, p = .237. Square-root transformations were performed on the social support data using the formula: TMSPSS = SQRT(85 – MSPSS score). This transformation resulted in an approximately

normal distribution of social support scores confirmed with an examination of the histograms (see Figures 5 & 6) and the Kolmogorov-Smirnov test results, $K\text{-}S(70) = .096$, $p = .181$.

Figure 5

Histogram of Scores on the Multidimensional Perceived Social-Support Scale (MSPSS)

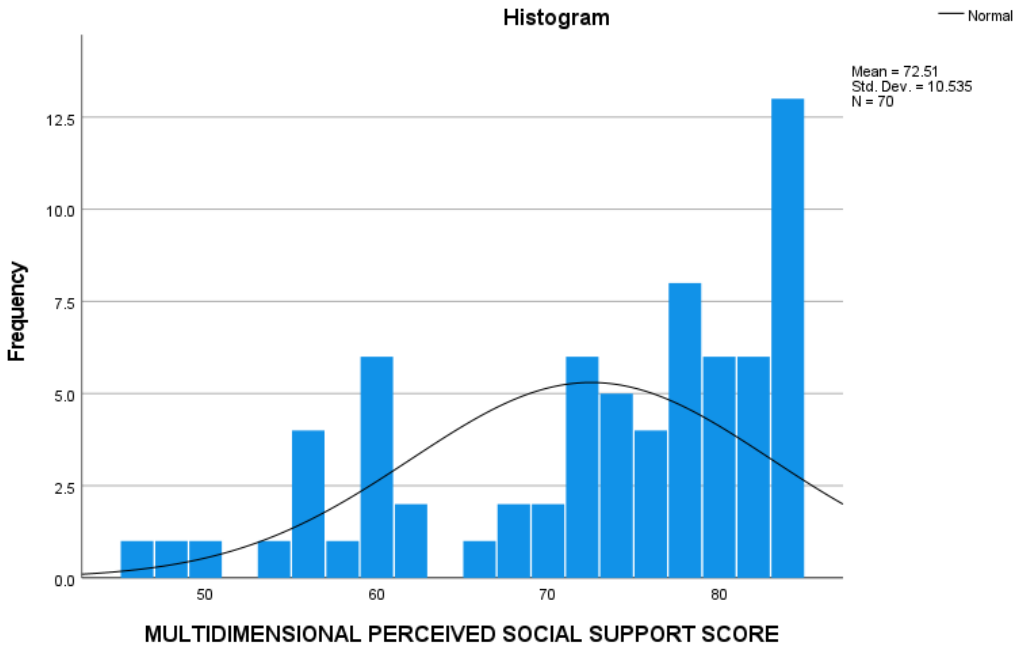
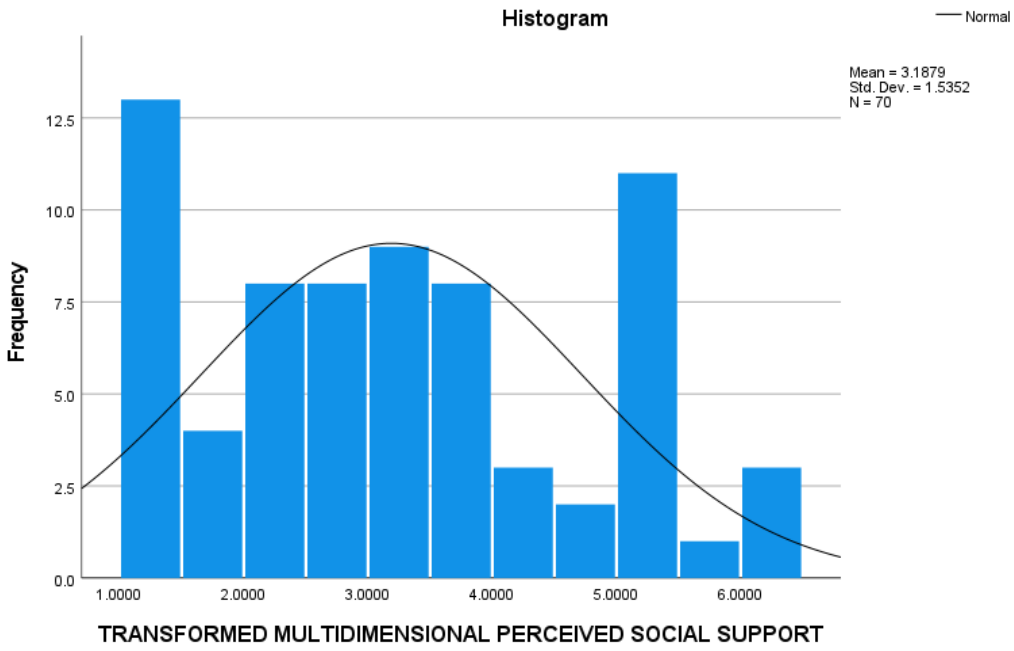


Figure 6

Histogram of Transformed Social Support Scores (TMSPSS)



The descriptive statistics of the untransformed and transformed survey scores are illustrated in Table 2. Examination of the scatter plot matrix based on transformed variables for self-efficacy and social support indicated approximately elliptical shapes, indicating that the assumption of multivariate normality and linearity were met (see Figure 7).

Table 2

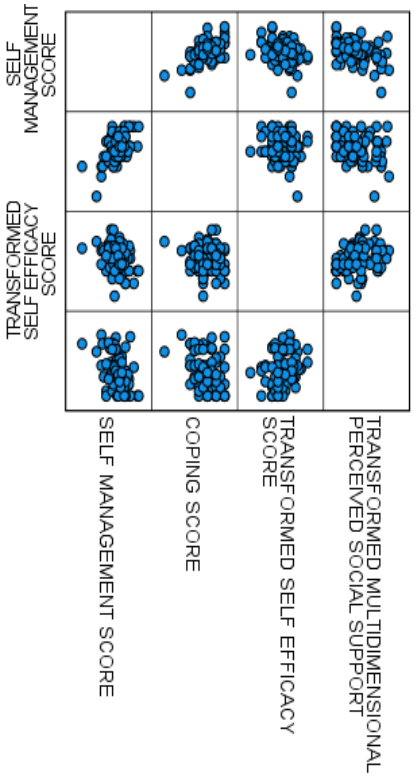
Descriptive Statistics for Untransformed and Transformed Scores

Survey scores	Mean (*SD*)	Median	Range	Min-Max	95% C.I.
SMAS score	72.00 (7.86)	72.50	47	43-90	70.13, 72.87
SES score	23.67 (4.77)	24.00	22	11-33	22.53, 24.81
*TSES score	3.12 (0.77)	3.16	3.80	1.00-4.80	2.94, 3.31
MSPSS score	72.51 (10.54)	75.50	38	46-84	70.00, 75.03
*TMSPSS score	3.19 (1.54)	3.08	5.25	1.00-6.25	2.82, 3.55
BRCS score	15.70 (2.76)	16.00	14	6-20	15.04, 16.36

Note. *Survey scores that underwent square-root transformation: TSES = Transformed Self-Efficacy (SES) scores; TMSPSS = Transformed Social Support (MSPSS) scores.

Figure 7

Scatter Plot Matrix

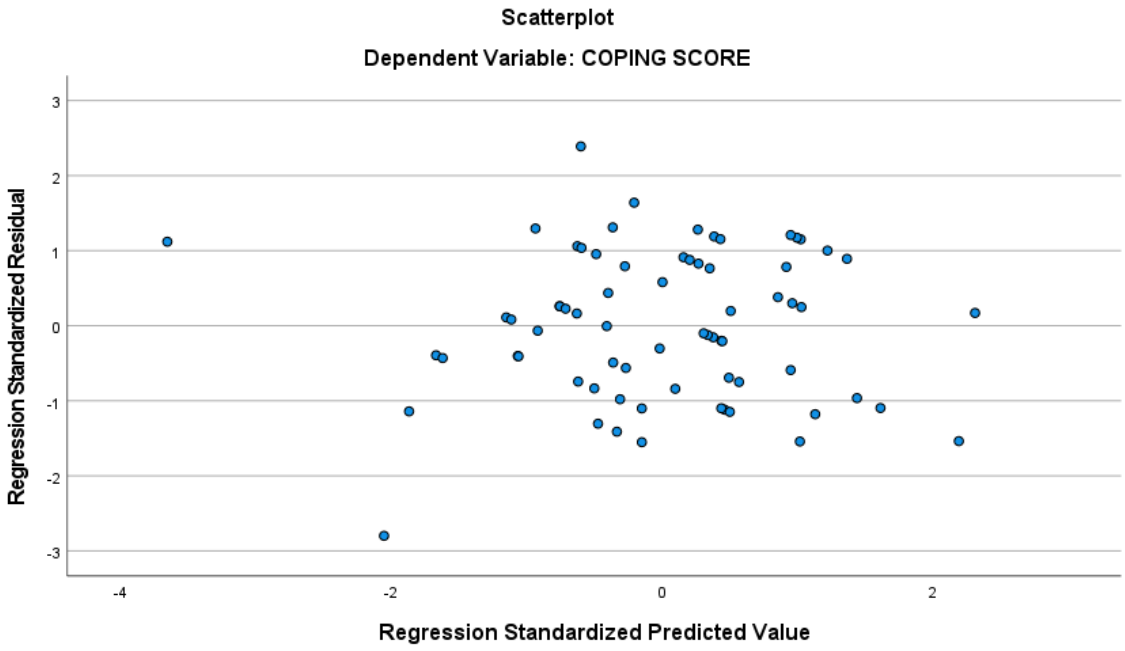


Check for homoscedasticity

Examination of the standardized residuals for the BRCS scores to the standardized predicted values for SMAS, TSES, and TMSPSS found no clustering (Figure 8). Therefore, the assumption of homoscedasticity was met.

Figure 8

Residual Plot



Statistical Analysis Findings by Research Question

To analyze my research questions, multiple regression analysis was conducted. Each individual research question and the results are described below.

Research Question 1

The first research question was: What are the combined effects of self-management and self-efficacy on coping among African Americans in Stages 3 or 4 with CKD?

The ANOVA table results indicate that the model containing self-efficacy (TSES) and self-management (SMAS) as independent variables was a good fit for the observed data on coping (BRCS), $F(2) = 19.343$. $p < .001$, (see Table 4). The adjusted R-square results indicated that the combined effects of TSES and SMAS were responsible for 34.7% of the variance in BRCS (Table 4). Thus, the null hypothesis was rejected.

Table 3

Analysis of Variance (ANOVA)

	Model	Sum of squares	*df*	Mean square	*F*	Sig.
1	Regression	192.068	2	96.034	19.343	.000 [b]
	Residual	332.632	67	4.965		
	Total	524.700	69			

[a] Dependent variable: coping score

[b] Predictors: (Constant), transformed self-efficacy score, self-management score.

Table 4

Model Summary

				Std. error	Change statistics				
Model	*R*	*R* square	Adjusted *R* square	of the estimate	*R* square change	*F* change	*df*1	*df*2	Sig. *F* change
1	.605 [a]	.366	.347	2.228	.366	19.343	2	67	.000

[a] Predictors: (Constant), transformed self-efficacy score, self-management score.

Moderation Analysis

To control for the possibility of multicollinearity among the independent variables and to simplify the interpretation of the results, all the independent variables were mean centered prior to the moderation analysis (Bolin, 2014). The descriptive statistics for the centered variables are displayed in Table 5.

Table 5

Descriptive Statistics of Mean Centered Independent Variables

Survey Scores	Mean (*SD*)	Median	Range	Min-Max	95% C.I.
SMAS score	.0000 (7.86)	.5000	47	-29-18	-1.874, 1.874
*TSES score	.0000 (0.77)	.0402	3.80	-2.122-1.673	-.1830, .1830
*TMSPSS score	.0000 (1.54)	-.1067	5.25	-2.188-3.057	-.3661, .3661

Note. *Independent variables that underwent square-root transformation.

Research Question 2

The second research question: Does social support moderate the relationship between self-management and coping among African Americans in Stages 3 or 4 with CKD?

The ANOVA results indicated that Model 2 (the model containing the moderator) was a good fit for the observed coping data, $F(3) = 14.152$, $p < .001$. However, Model 1, which did not contain the moderator, was a better fit with a larger *F*-ratio, $F(2) = 19.761$, $p < .001$. Examining the adjusted R-square for both models, indicated that Model 1 contributed to 35.1% of the variance in coping ($p < .001$); Model 2 containing the moderator did not contribute significantly to the variance in coping (see Table 6).

Table 6

Model Summary

Model	*R*	*R* square	Adjusted *R* square	Std. error of the estimate	Change statistics				
					R square change	*F* change	*df*1	*df*2	Sig. *F* change
1	.609 [a]	.371	.352	2.219	.371	19.761	2	67	.000
2	.626 [b]	.391	.364	2.200	.020	2.217	1	66	.141

[a] Predictors: (Constant), centered transformed multidimensional perceived social support, centered self-management score.

[b] Predictors: (Constant), centered transformed multidimensional perceived social support, centered self-management score, ISMMSP = (self-management*social support).

In Model 1, the unstandardized Beta-coefficient indicated that a 1-unit increase in the self-management scores resulted in an increase in the coping score of .195 on average ($p < .001$); in Model 2, a 1-unit increase in self-management score resulted in an increase in the coping score of .186 on average ($p < .001$). Social support did not independently predict coping nor did it moderate the effect of self-management on coping ($p > .05$; see Table 7).

Table 7

Coefficients

Model		Unstandardized coefficients		Standardized coefficients			95.0% confidence interval for B	
		B	Std. error	Beta	*t*	Sig.	Lower bound	Upper bound
1	(Constant)	15.700	.265		59.185	.000	15.171	16.229
	SMAS	.195	.038	.557	5.179	.000	.120	.271
	TMSPSS	-.187	.193	-.104	-.969	.336	-.572	.198
2	(Constant)	15.848	.281		56.376	.000	15.287	16.410
	SMAS	.186	.038	.531	4.918	.000	.111	.262
	TMSPSS	-.196	.191	-.109	-1.026	.309	-.579	.186
	*ISMMSP	.029	.019	.145	1.489	.141	-.010	.067

Note. Dependent variable = Coping (BRCS). *ISMMSP = self-management (SMAS)*social support (TMSPSS).

In conclusion, in both models, self-management in the presence of social support was found to predict coping. However, social support did not predict coping, and social support did not moderate the relationship between self-management and coping. Thus, the null hypothesis was retained.

Research Question 3

The third research question was: Does social support moderate the relationship between self-efficacy and coping among African Americans in Stages 3 or 4 with CKD?

An ANOVA was conducted to determine the fit of the models to the observed data. Model 1 contains self-efficacy and social support as independent predictors. The results indicate that the model was a good fit for the observed data on coping, $F(2) = 4.566$, $p = .014$. After adding the interaction term in Model 2, the results were still statistically significant, although the model was weaker compared to Model 1, $F(3) = 3.012$, $p = .036$.

In Table 8, the adjusted R-square for Model 1 indicates that the model containing self-efficacy and social support as independent variables was responsible for 9.4% of the variance in coping (p =.014); however, Model 2 which included the moderator did not contribute significantly to the variance in coping (p > .05). In Model 1 the unstandardized Beta-coefficient indicated that when social support was held at the mean, every 1-point increase in the self-efficacy score was associated with a decrease in the coping score of .103 points on average, but this relationship did not contribute significantly to the model.

Table 8

Model Summary

				Std. error	Change Statistics				
Model	*R*	*R* square	Adjusted *R* square	of the estimate	*R* square change	*F* change	*df*1	*df*2	Sig. *F* change
1	.346 [a]	.120	.094	2.625	.120	4.566	2	67	.014
2	.347 [b]	.120	.080	2.644	.000	.035	1	66	.852

[a] Predictors: (Constant), centered transformed multidimensional perceived social support, centered transformed self-efficacy score

[b] Predictors: (Constant), centered transformed multidimensional perceived social support, centered transformed self-efficacy score, ISEMSP = (self-efficacy*social support)

However, when self-efficacy was held at the mean, a 1-unit increase in social support was associated with a .603-point decrease in coping on average (p <.01). In Model 2, a 1-unit increase in social support score resulted in a decrease in the coping score of .606 points (p < .01) when self-efficacy and the moderator (self-efficacy*social support) were held at their means (see Table 9). However, neither self-efficacy nor the moderator, were significant contributors to this model.

Table 9

Coefficients

Model		Unstandardized coefficients		Standardized coefficients			95.0% confidence interval for B	
		B	Std. error	Beta	*t*	Sig.	Lower bound	Upper bound
1	(Constant)	15.700	.314		50.035	.000	15.074	16.326
	TSES	-.103	.436	-.029	-.237	.813	-.974	.767
	TMSPSS	-.603	.218	-.336	-2.765	.007	-1.038	-.168
2	(Constant)	15.726	.344		45.655	.000	15.038	16.413
	TSES	-.096	.441	-.027	-.217	.829	-.977	.786
	TMSPSS	-.606	.220	-.337	-2.752	.008	-1.046	-.166
	*ISEMSP	-.067	.357	-.022	-.187	.852	-.779	.646

Note. Dependent variable = Coping (BRCS). *ISEMSP = self-efficacy (TSES)*social support (TMSPSS).

In conclusion, in both Models 1 and 2, social support in the presence of self-efficacy was found to predict coping. Self-efficacy did not predict coping, and social support did not moderate the relationship between self-efficacy and coping. Therefore, the null hypothesis was retained.

Summary

In this chapter, I provided the analysis of the quantitative correlational study which surveyed 70 participants from the hypertension/nephrology clinics in the Southeastern region of the United States. The sample was primarily female between the ages of 41-60 with a high school degree. My statistical analysis determined that self-management and social support are related to copying, but self-efficacy was not among African Americans in Stages 3 or 4 with CKD. Looking at the relationship between social support and coping, when social support increases, coping decreases. People who are not

coping well are seeking greater amounts of social support and people who are coping well are able to self-manage better. Self-management in the presence of social support was found to predict coping. Social support in the presence of self-efficacy was found to predict coping. However, social support did not moderate the relationship between self-management and coping or self-efficacy and coping. Subsequently, there is a missing element not in the theoretical framework that was used that is influencing coping. In Chapter 5, I will describe the limitations of the study, describe recommendations for further research, and implications, including implications for positive social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this quantitative cross-sectional study was to examine the relationships among self-management, self-efficacy, and coping behaviors in African Americans with CKD in Stages 3 or 4. In addition, the moderating effect of social support on the extent to which self-management and self-efficacy account for the variance of coping behaviors in African Americans with CKD was examined. The outcome variable was coping behavior. The predictor variables were self-management and self-efficacy. Social support was the moderating variable in this study.

Limitations of the Study

There were limitations in this research. Time and access to technology were limitations. Some of the participants did not have the time to complete the surveys and they may not have had the technology available to access the surveys. The office staff provided participants with the post cards with simple instructions to complete at home on their computer or cell phone. The second limitation related to generalizability. The sample for this study was recruited from one hypertension/nephrology clinic. The results obtained from the participants in this study was only a representation of the African American population with CKD served by this clinic, thus decreasing the ability to generalize to all African American participants with CKD. While the participants described their level of CKD, I was unable able to confirm their self-report through review of their medical records. The third limitation involved data representation. I used a non-random sampling technique. Therefore, the data obtained may not represent all

African Americans with CKD in Stages 3 or 4, and therefore, generalization is limited. The participants selected the level of their CKD; it was assumed they knew the level of their disease.

Recommendations

Mental awareness can be a precursor to delineate disease progression. The results of this study can guide practitioners to design programs to foster coping strategies in African Americans in Stages 3 or 4 CKD and potentially slow or prevent the progression of the disease. Though this study was generalized and tailored to African Americans, the variables examined therein can also be further studied with other ethnicities.

Implications

The results of this study have the potential for positive social change for three groups: patients in Stages 3 and 4 CKD, healthcare providers, and healthcare organizations. Empowering patients in Stages 3 or 4 CKD to understand self-care management strategies that can help them cope with the challenges associated with the disease have the potential to decrease the progression of the disease and increase their quality of life. The findings of my study may facilitate understanding the impact between the variables having the potential to halt disease progression from Stage 3 or 4 CKD to Stage 5 or end-stage renal failure. Reducing progression for patients also benefits the healthcare organization through cost savings related to reduction in readmissions and cost of chronic care. In addition, my study may improve social change by guiding practitioners to design programs to foster coping strategies that have the potential to slow or prevent the progression of the disease in patients with CKD.

Conclusion

CKD is a disease that may pose a threat physically if it is not handled well psychologically. My mother had CKD and was in Stage 5 on dialysis. She died on January 16, 2022, before I finished my research. Her physician chose not to make the necessary changes because she was depressed. I am writing this dissertation because often I wonder if he had sought out her coping behaviors if things would have been different and years of age could have been greater than 75. I cannot change my mother's outcomes but as the numbers steadily rise in the number of African Americans with CKD, I hope to make a difference in acknowledging social support, and self-efficacy can indeed empower them to develop strategies to cope with the disease and life challenges, slow its advancement, and lead to enhanced quality of life.

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Appendix A: Demographic Information Questionnaire

What is your age?

- Less than 20 _____
- 21-40 _____
- 41-60 _____
- 61 or over _____

What is your gender?

- Female _____
- Male _____
- Non-binary _____
- Prefer not to say _____

What is your ethnicity?

- White/Caucasian _____
- Hispanic/Latino _____
- Black/African American _____
- Asian/Pacific Islander _____
- Multiple ethnicity/Other _____

What is your highest education?

- Some high school _____
- High school _____
- Some college _____
- Finished college _____

- Graduate school _____

Length of time with chronic kidney disease?

- 1-2 years _____
- 3-5 years _____
- 5-8 years _____
- Greater than 10 years _____

Appendix B: Permission to Use the BRCS

From: Sinclair, Vaughn <vaughn.sinclair@Vanderbilt.Edu>
Sent: Tuesday, June 8, 2021, 5:49 PM
To: Gabrielle Lawrence <gabrielle.lawrence@waldenu.edu>
Subject: Re: Brief Resilient Coping Scale

Dear Mr. Lawrence,
You are welcome to use our scale. A copy is attached with the reference. Best wishes for your research. Kind regards, Vaughn Sinclair

Appendix C: Permission to Use the SMAS

Self-Management Ability Scale—Short Version [Database record]. Retrieved from PsycTESTS. doi: https://dx.doi.org/10.1037/t69224-000 Instrument Type: Inventory/Questionnaire Test Format: Average overall SMAS scores range from 5 to 30, with higher scores indicating higher SMA. Source: Reproduced by permission from: Cramm, Jane M., Strating, Mathilde M. H., de Vreede, Paul L., Steverink, Nardi, & Nieboer, Anna P. (2012). Validation of the Self-Management Ability Scale (SMAS) and development and validation of a shorter scale (SMAS-S) among older patients shortly after hospitalization. Health and Quality of Life Outcomes, Vol 10. Permissions: Test content may be reproduced and used for non-commercial research and educational purposes without seeking written permission. Distribution must be controlled, meaning only to the participants engaged in the research or enrolled in the educational activity. Any other type of reproduction or distribution of test content is not authorized without written permission from the author and publisher. Always include a credit line that contains the source citation and copyright owner when writing about or using any test.

Appendix D: Permission to Use the Coping SES

RE: Permission to use- Coping Self Efficacy Scale

GM

GANDOY CREGO MANUEL <manuel.gandoy@usc.es>
Mon 6/14/2021 1:51 AM
To: miguel.clemente <miguel.clemente@udc.es>; Gabrielle Lawrence

pdf Self_efficacy and Health....
314 KB

Good Morning
You have our permission to use the instrument.
You can find it attached.
Greetings

Manuel Gandoy Crego
Tel: +34 881 81 20 71
Correo: manuel.gandoy@usc.es

Appendix E: Permission to Use the MSPSS

Multidimensional Scale of Perceived Social Support (MSPSS)

HOME MSPSS Resources CONTACT

The Multidimensional Scale of Perceived Social Support (MSPSS) is a brief research tool designed to measure perceptions of support from 3 sources: Family, Friends, and a Significant Other. The scale is comprised of a total of 12 items, with 4 items for each subscale. My colleagues, Nancy Dahlem, Sara Zimet, Gordon Farley, and I (Gregory Zimet) first published on the MSPSS in the Journal of Personality Assessment in 1988.

Across many studies, the MSPSS has been shown to have good internal and test-retest reliability, good validity, and a fairly stable factorial structure. It has been translated into many languages, including (but not limited to) Urdu, Hebrew, Tamil, Danish, Farsi (Persian), French, Italian, Korean, Lithuanian, Hausa, Norwegian, Simplified Chinese, Traditional Chinese, Slovene, Malay, Slovak, Spanish, Swedish, Polish, Portuguese, Romanian, and Thai. For linguistically-validated translations, consider using TransPerfect.

The MSPSS is free to use. Please simply credit the following paper (and any others that are relevant), if you use the scale:

Zimet GD, Dahlem NW, Zimet SG, Farley GK. The Multidimensional Scale of Perceived Social Support. Journal of Personality Assessment 1988;52:30-41.