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Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Olga Hernandez

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2020

Abstract

Effective Coping Mechanisms for Caregivers of Dialysis Patients

By

Olga Hernandez

MS, University of Phoenix, 2011

BA, Mount St. Mary's University, 1999

Proposal Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

May 2020

Abstract

In the United States, approximately 9 million informal caregivers, such as family and friends, assist other adults with essential activities, and more than 20 million adult Americans in the United States suffer from some level of chronic kidney disease. Research on the burden and satisfaction of caregivers of dialysis patients has focused on patients and caregivers who have been dealing with long-term kidney disease; however, this study addressed patients and their caregivers who were first transitioning from wellness to illness. The main intent of this study was to identify the coping mechanisms of effective caregivers at this point in time. The theoretical framework for this study was Lazarus and Folkman's theory of cognitive appraisal, which focused on emotions and how an individual appraises a situation. A total of 128 caregivers completed the survey. A multiple regression analysis, with backward elimination method was used. Results of multiple linear regression analysis showed that the coping skills of being optimistic and emotive manifested by caregivers during the transition from wellness to illness of patients with end-stage renal disease significantly positively predict scores on the physical health domain, as well as the coping skill of being emotive on the psychological domain, and the coping skill of being optimistic on the environment domain. Identifying caregiver coping mechanisms during the initial transition from wellness to illness could contribute to future therapeutic techniques for caregivers; it could also contribute to positive social change in terms of government legislation for caregivers of kidney dialysis patients and in the global community for caregivers of kidney dialysis patients

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Dedication

I want to dedicate my dissertation to my parents Olga and Roberto Hernandez. I am extremely grateful for your love, prayers, and sacrifices for educating and preparing me from a young age for my future. Thank you for showing me the importance of a valuable education, and for giving me the gift of faith in God, los quiero mami y papito. I want to also express my thanks to my brother, Kevin Hernandez for your never ending support, I love you. To all my sisters-in-law, and brothers-in-law for their support and valuable prayers, I love you guys. To all my nieces and nephews, remember the world is your Oyster, tia/auntie-loves you all. To all my friends who are more like family thank you for your encouragement and love, I love you. Lastly, but absolutely not least, to my husband, and soon to be Dr. Eddy Perez, thank you for trotting this trajectory together with me. Thank you for helping me lift up my load when the process seemed too heavy to carry, so I could keep going. I loved you yesterday, I love you today, tomorrow, and always. To our angel in heaven, Alex, I carry you in my heart every day, I love you. To our rainbow baby, Sidney Natalia Perez, you turned my world upside right! My life is complete now because of you. Mami, dedicates this dissertation to you too! Remember the sky has no limits, reach for the stars, and remember to always treat others with respect, kindness, and love, all the while respecting yourself. I love you baby girl more than you will ever know. I loved yesterday, I love you today, tomorrow, and always!

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I would like to express my deep and sincere gratitude to my dissertation committee for all of their support, guidance, and encouragement, Dr. Steven Little and especially to my chair Dr. Matthew Fearington for all your time taken throughout this unique journey, thank you for your countless hours of reading and editing as it was invaluable. I also want to thank my URR reviewer, Dr. Carol Davis thank you for your support. Completing my dissertation could have not been possible without you all. Thank you.

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Chapter 1: Introduction to the Study

Caregivers primarily provide care and support to people who are frail, or require assistance with activities of daily living or illnesses (Booth & Johnson, 1994; Coyne & Fiske, 1992; Rosland et al., 2013). In the United States, 30% of the population fulfills the role of caregiver (Fox & Brenner, 2012). These caregivers include adults who care for other adults such as a parent or a spouse; some care for young children; a small group consists of adults who care for an adult child (Fox & Brenner, 2012). The level of burden, satisfaction, physical, and psychosocial well-being of caregivers of end-stage renal disease (ESRD) patients has received much attention recently (Rosland et al., 2013), although not much about the transition from wellness to illness.

The chapter includes a discussion of the background of the topic under consideration, the problem statement, and purpose of the study. Research questions and their corresponding hypotheses and the theoretical foundation are presented. The nature of the research design for the study, and definition of terms are briefly discussed. The assumptions, limitations, delimitations of the study, and significance of the study conclude the chapter.

Background

In the United States, approximately nine million informal caregivers, such as family and friends, assist other adults with basic activities (Rosland et al., 2013; Beanlands et al., 2005). The majority of caregivers think they are not equipped to take on the daunting task of becoming the caregiver for someone diagnosed with a chronic illness, such as CKD and ESRD, but believe they can take on the caregiver role

(DuBenske et al., 2014). Although family and friends are willing to take on the role of caregiver, they naturally fear that a medical emergency would be outside their caregiving abilities (Beanlands et al., 2005; DuBenske et al., 2014). A large number of chronically ill patients have a family member or a friend accompany them to doctor appointments on a regular basis and thus play a critical role in the patient's life. Family and friends also spend a significant amount of time monitoring the patient's symptoms and side effects, an activity that hinders their ability to attend social gatherings and work events (Beanlands et al., 2005; DuBenske et al., 2014; Rosland et al., 2013).

Family and friends become key when making critical decisions, providing emotional support, or collecting information, but unfortunately they are unnoticed. Family and friends become the patient's caregivers, and spouses were the primary caregivers, when available and applicable, for dialysis patients (DuBenske et al., 2014; Rosland et al., 2013). Over time caregivers mental and physical health deteriorates along with a decline in social activities and finances; however, it is critical to understand that the burden first begins when the caregiver felt ill-equipped to handle the situation (Dubenske et al., 2014; Northouse et al., 2012). Notably, fulfilling caregiver's needs with information, and resources helps to minimize their burden (DuBenske et al., 2014). Therefore, providing coping skills, support, and information increases the odds of a better quality of life for caregivers (Dubenske et al., 2014; Goetzman et al., 2012; Rosland et al., 2013).

Caregivers are confronted with their loved one's morbidity when their loved one was given a life-threatening diagnosis, as a result of the chronic illness (McQuellon &

Cowan, 2010; Pelletier-Hibbert & Sohi, 2001). Uncertainty is what caregivers lived with, which brought constant stress and fear to their everyday lives (Pelletier-Hibbert & Sohi, 2001). However, Friedemann and Buckwalter (2014) found that the majority of caregivers were not clinically depressed. Instead, caregivers believed they had a strong obligation to care for their ill relative, did not feel overly burdened, were religious, and believed that the caregiving role should be taken on by any of their family members. The authors also found that the majority of caregivers seemed to have accepted their new norm with no help from family or community services. In sum, a spouse, parent, sibling, adult child, or friend who takes on the role of caregiver is certain to experience life-altering events (Friedemann & Buckwalter, 2014).

As individuals move into the caregiver role, many decisions need to be made, and obstacles need to be confronted. First, they had to confront the transition from wellness to illness, which is the period from being healthy to the initial diagnosis. Several factors influenced decisions as caregivers transitioned into this period, such as personality traits, attachment, and religion and cultural groups. First, personality traits along with the adaptability to adapt to a new situation may influence the transition period from wellness to illness for caregivers, and how effectively they cope with the distress. Second, attachment orientation may affect the relationship between caregiver burden and the ability to cope, appropriately, with the crisis (Vilchinsky et al., 2015). Attachment orientations may also influence how an individual transitions from wellness to illness, and ultimately how effectively she or he copes with the distress. Third, culture and religion can hinder caregivers to seek mental health services when caring for an ill family

member. Therefore, the transition from wellness to illness may be a difficult process for the caregiver as may the path ahead (Weisman de Mamani & Suro, 2015).

Problem Statement

According to the Centers for Disease Control and Prevention (CDC, 2014), one in 10 adults in the United States, or more than 20 million suffers from some level of CKD. CKD is the reduction of kidney function over time and ESRD is complete and permanent kidney failure, which is the result of CKD. When an individual has reached ESRD, he or she will need treatment to replace the function of the failed kidneys (CDC, 2014). The process of dialysis brings life-changing decisions that will affect not only the patient but also his or her family members and ultimately his or her caregiver. According to Booth and Johnson (1994), the role of the caregiver is often filled by the spouse, who shares the burden, stress, and emotional distress over time with his or her ill spouse.

According to Zarit, Todd, and Zarit (1986), as cited in Wilson-Genderson, Pruchno, and Cartwright (2009), caregiver burden is defined as the caregiver's perceptions of how social life, financial status, physical health, or emotional health are affected when caring for a family member. According to Wilson-Genderson et al. (2009), the burden or satisfaction of caregivers of dialysis patients has focused on family members and caregivers who have been dealing with long-term kidney disease. Future research must address the burden and satisfaction of caregivers and family member's patients who are transitioning from wellness to illness. Thus, the gap exists from the diagnosis of ESRD to the start of dialysis. The focus of this research was to identify the coping mechanisms of effective caregivers during this time, which is critical.

Purpose of the Study

The purpose of this quantitative study was to identify how caregivers cope during the transition period between wellness to illness, and the burden and life satisfaction during the transition from wellness to illness, or when hemodialysis begins was an important shift. Therefore, identifying effective caregivers' coping mechanisms was critical. The dependent variables for the study were the quality of life domains (physical health, psychological health, social relationships, and environment) and the independent variables were the coping skills (confrontative, evasive, optimistic, fatalistic, emotive, palliative, supportive, and self-reliant). The purpose was addressed by describing the predictive relationship between the coping skills and quality of life domains using regression analysis.

Research Questions and Hypotheses

The following research questions and hypotheses guided this study in identifying how caregivers cope during the transition period from wellness to illness of patients with ESRD. The instruments used in gathering data were the World Health Organization Quality of Life assessment (WHOQOL-BREF) and the Jalowiec Coping Scale. The former was used to measure the quality of life domains (dependent variable), whereas the latter was used to measure the different coping styles (independent variable).

Research Question: How do the coping skills manifested by caregivers during the transition from wellness to illness of patients with ESRD relate to the quality of life domains?

H1₀: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the physical health domain, as measured through the WHOQOL-BREF Scale.

H1_a: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly predict scores on the physical health domain, as measured through the WHOQOL-BREF Scale.

H2₀: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the psychological domain, as measured through the WHOQOL-BREF Scale.

H2_a: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly relate to the psychological domain, as measured through the WHOQOL-BREF Scale.

H3₀: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of

patients with ESRD do not significantly relate to the social relationships domain, as measured through the WHOQOL-BREF Scale.

H3_a: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly relate to the social relationships domain, as measured through the WHOQOL-BREF Scale.

H4₀: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the environment domain, as measured through the WHOQOL-BREF Scale.

H4_a: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly relate to the environment domain, as measured through the WHOQOL-BREF Scale.

Theoretical Framework

The theoretical framework for this study was Folkman's (1984) theory of cognitive appraisal, which is also known as the theory of psychological stress and coping. Lazarus (1991) analyzed the concept of emotions and how the individual appraises a situation. Stress and emotion are viewed from a cognitive and phenomenological

standpoint and leads to how a person may appraise a situation (Lazarus, 1991). Thoughts have the capacity to produce emotions, and emotions cannot happen in the absence of thought (Folkman, 2010; Lazarus, 1991; Padden, Connors, & Agazio, 2011). Emotions are the direct result of appraisals of the reaction to what occurred in personal well-being (Lazarus, 1991; Padden et al., 2011). When an emotion happens, it is like fuel for the following emotion and appraisal. For example, a person feels ashamed because he or she got angry; if the anger is viewed as an unwarranted personal setback, the anger will produce the feeling of shame (Lazarus, 1991; Padden et al., 2011).

According to Lazarus and Folkman (1987), the extent to which any relationship is perceived as distressing or beneficial is dependent on cultural and social–environmental conditions, as well as psychological features that the person brings into the relationship. The theory consists of two types of appraisal: primary and secondary. Primary appraisals involve the motivational significance of understanding what is occurring and its relevance to the caregivers’ well-being (Folkman, 2010; Lazarus, 1991; Meurs & Perrewe, 2011; Padden et al., 2011; Wahl et al., 1999). Secondary appraisals are a supplement to primary appraisals that involve the belief about control over a particular outcome as well as conducting analysis to identify any available coping options for the stressor (Lazarus & Folkman, 1987; Meurs & Perrewe, 2011). Primary and secondary appraisals are arbitrators of the caregiver’s emotional responses toward the situation causing the stressful emotional response. The cognitive appraisals of a stressor serve as mediators between different variables and coping strategies while influencing different outcomes. This theory has been extensively researched, and its theoretical foundations

are widely accepted by many researchers (Goh, Sawang, & Oei, 2010; Meurs & Perrewe, 2011; Newton & McIntosh, 2010).

In this theory, coping consists of two types: problem-oriented and emotion-focused. Problem-oriented coping is concerned with the actual problem that is the cause of the distress, or the patient's chronically unfortunate situation (Lazarus, 1991; Padden et al., 2011; Wahl et al., 1999). Emotion-focused coping involves the regulation of the emotional responses toward the problem, for example, how caregivers respond to or handle their emotions, or how they react toward the demands of hemodialysis, or how the caregiver reacts to the loved one's dialysis (Folkman, 2010; Lazarus, 1991; Padden et al., 2011; Wahl et al., 1999). It is important to assess how individuals reason or make sense of a stressful situation to interpret the connection between coping strategies and its effects (Lindqvist, Carlsson, & Sjoden, 2000). Having a conceptual understanding of caregivers' cognitive interpretations of the stressful situation can provide a window into how or what coping mechanisms they will use. This theory provided the foundation for assessing coping mechanisms in caregivers of dialysis patients in the early transition from wellness to illness.

Nature of the Study

This quantitative correlational study helped determine how caregivers coped during the transition period from wellness to illness of patients with ESRD. Quantitative methods measured variables or data numerically and objectively, and made use of statistical techniques to analyze the underlying relationship between and among these variables or data (Mustafa, 2011). Quantitative methods sought to determine or identify

existing relationships between and among numerically measured variables (Allwood, 2012). This study sought to determine the relationship between the independent variables (coping skills) and the dependent variables (quality of life domains), which were numerically measured using two validated survey instruments. The selection of a quantitative method for this study was justified, as it was appropriately suited for the purpose of the study to determine the relationship between the independent variables, coping skills and the dependent variables, the quality of life domains. By measuring two variables and assessing the statistical relationship without controlling them is a great fit for this research study.

The main objective of a correlational research design is to measure the behavior and magnitude of the relationship between and among the dependent and independent variables (Leedy & Omrod, 2010). This objective coincides with the purpose of this study, which was to determine how caregivers of patients with CKD cope during the transition period from wellness to illness identifying the underlying relationship of how coping skills (independent variable) impacted the quality of life (dependent variable). Also, correlational research design did not involve the manipulation of variables or a controlled experimental setting.

Definitions

Chronic kidney disease: A condition characterized by a gradual loss of kidney function over time (Kahan & Ashar, 2008).

End-stage renal disease: The last stage of CKD where the kidneys are no longer capable of removing waste products from the patient's circulating blood, and the GFR falls to $<15 \text{ ml/min/1.73 m}^2$ (Kahan & Ashar, 2008).

Kidney failure: A kind of failure that occurs because there is a loss of some (but not all) of the organ's filtration capacity, which is clinically identified by a reduced glomerular filtration rate (Kahan & Ashar, 2008).

Assumptions

This study was based on three assumptions. First, it was assumed that the understanding or interpretation of particular questions, as well as the interpretation and use rating scales in the survey instrument of the participants, was congruent on how and what it was supposed to mean. Second, it was assumed that participants would be honest in their responses. Lastly, it was assumed that the survey instruments would accurately measure the variables under consideration.

Scope and Delimitations

This study was limited to caregivers of patients CKD. To collect data for quality of life and coping skills, only the WHOQOL-BREF Scale and the Jalowiec Coping Scale were used, respectively. The survey did not include any open-ended questions or personal interviews. Only caregivers currently residing in California were considered for the study.

Limitations

This study was subject to four limitations. First, the participants for the study were limited to caregivers of patients with kidney disease. Second, the population size of

caregivers was large. However, it was not feasible for every caregiver to participate in the study. Thus, only those caregivers who consented to participate in the study were included in this study, which limited the generalizability of the findings of this study. Third, the survey of caregivers was limited to only one state, limiting the demographic sample and generalization of results to other states or a bigger sample. Lastly, since the study followed a correlational design, only relationships between the independent and dependent variables were examined and not the causes of the changes in the dependent variables. In other words, this study was limited to determining the descriptive relationships between the variables, but not causality between them.

Significance

Research on the burden and satisfaction among caregivers of dialysis patients during the initial transition from wellness to illness could contribute to future [medical? psychological?] therapeutic techniques. The function of cognition in emotion consists of how a caregiver construes his or her situation (Lazarus, 1991); therefore, assessing how an individual appraises their stressful situations is vital to interpreting the connections between coping strategies and its effects (Lindqvist et al., 2000). This study sought to learn about the relationship between caregivers' coping skills and quality of life. Determining the level of stress, or lack of coping, during the transition period from wellness to illness could highlight the importance of early intervention for caregivers. Early intervention could improve the way a caregiver continues to cope with the patient's dialysis treatment regimen and thus provide a positive social change in the area of stress and burden for the caregiver population.

Summary

The purpose of this quantitative correlational study was to identify how caregivers from one state cope during the transition period between wellness to illness and identify any effective coping mechanisms. Two survey instruments, the WHOQOL-BREF Scale and the Jalowiec Coping Scale, were used to gather data. Multiple regression analysis was utilized to determine the relationship between the study variables.

The following chapter 2, Literature Review, thoroughly discusses CKD, ESRD, the coping mechanisms of caregivers, and the period from wellness to illness. Chapter 3, Methodology, explains how the study was carried out, chapter 4, Results, explains the coping skills that were manifested by caregivers during the transition from wellness to illness, and finally chapter 5, Discussion, Conclusions, and Recommendations, explains the implications of the results of the data analysis and recommendations for future research.

Chapter 2: Literature Review

Introduction

The purpose of this quantitative correlational study was to identify how caregivers from one state cope during the transition period between wellness to illness and identify any effective coping mechanisms. The purpose of this chapter was to review the literature pertinent to this study, and covered the following topics:

- The theoretical framework used as the basis for this study
- The definition of kidney disease and kidney disease treatments
- The role of caregivers in dealing with patients diagnosed with chronic kidney disease
- The transition from wellness to illness and its effects on caregivers
- Caregiver burden and satisfaction and how a caregiver's life changes when a spouse or loved one is diagnosed with ESRD
- Caregivers' coping mechanisms and research on caregivers
- The quality of life and the importance of measuring quality of life for caregivers

Literature Search Strategy

To identify the peer-reviewed literature published during the past 10 years on the topic of coping mechanisms for caregivers, the following databases were used:

PsycINFO, PsycARTICLES, SAGE, and Google Scholar. The following search terms were used: *caregivers, dialysis patients, mechanisms, chronic illness, coping, ESRD,*

CKD, renal failure, quality of life, Jalowiec Coping Scale, Jalowiec, Folkman and Lazarus theory of stress and coping, caregivers-dialysis patients, caregivers-coping mechanisms, quality of life-coping mechanisms, and chronic illness-caregivers.

Theoretical Framework

The theoretical framework for this study was Lazarus and Folkman's (1984) theory of cognitive appraisal—also referred to as the theory of psychological stress and coping. Lazarus and Folkman (1991) analyzed the concept of emotions and how the individual appraises a situation. The authors viewed stress and emotion from a cognitive and phenomenological standpoint, which led to how a person may appraise a situation (Lazarus, 1991). Thus, thoughts have the capacity to produce emotions, and emotions cannot happen in the absence of thought (Folkman, 2010; Lazarus, 1991; Padden, Connors, & Agazio, 2011). Emotions are the direct result of appraisals of the reaction to what occurred for personal well-being (Lazarus, 1991; Padden, Connors, & Agazio, 2011). When an emotion happens, it is like fuel for the following emotion and appraisal. For example, if a person feels ashamed because he or she got angry since they view anger as an unwarranted personal setback, the emotion of anger will produce the feeling of shame (Lazarus, 1991; Padden, Connors, & Agazio, 2011).

According to Lazarus and Folkman (1987), the extent that any relationship may be distressing, or beneficial, depends on cultural and social environmental conditions, as well as psychological features that the person brings into the relationship. The theory consists of two types of appraisal: primary and secondary. Primary appraisals involve the motivational significance of what is occurring. In other words, if what is happening is

related to the caregivers' well-being, or if it can be dismissed as not being an issue (Folkman, 2010; Lazarus, 1991; Meurs & Perrewe, 2011; Padden, Connors, & Agazio, 2011; Wahl et al., 1999). Secondary appraisals involve a supplement to primary appraisals, in that it depends on how much a caregiver believes he or she has control over a particular outcome, as well as conducting analysis to identify any available coping options for the stressor (Lazarus & Folkman, 1987; Meurs & Perrewe, 2011). Primary and secondary appraisals are arbitrators of the caregiver's emotional responses, toward the situation causing the stressful emotional response. The cognitive appraisals of a stressor serve as mediators between different variables and coping strategies while influencing different outcomes. This theory has been extensively researched, and as a result, its theoretical foundations are accepted by many researchers. (Goh, Sawang, & Oei, 2010; Meurs & Perrewe, 2011; Newton & McIntosh, 2010)

The Lazarus and Folkman theory of cognitive appraisal have been used in numerous research studies since it was developed. For example, research topics on religious beliefs, work stress, and occupational stress and coping have used this theory as their theoretical framework (Goh, Sawang, & Oei, 2010; Meurs & Perrewe, 2011; Newton & McIntosh, 2010). Some of those researchers focusing on work stress, who have continuously used the Lazarus theory as their theoretical foundation are Dewe, Cox, and Ferguson, (1993) and Van Steenbergen, Ellemers, Haslam, and Uurlings (2008). Religious beliefs consist how religion relates to appraisals of stressors and how these appraisals relate to the coping process during a distress situation (Newton & McIntosh, 2010). Work stress and occupational stress and coping focus on how the workplace

environment influences stress on individuals. It is critical to note that different situations relating to the job duties and experiences are what constitutes to occupational stress (Goh, Sawang, & Oei, 2010; Meurs & Perrewe, 2011; Newton & McIntosh, 2010). Managing stress in the workplace consists of the individual evaluating if the situation poses a threat, or if it can be dismissed (Dewe, Cox, & Ferguson, 1993; Goh, Sawang, & Oei, 2010; Meurs & Perrewe, 2011; Newton & McIntosh, 2010; Van Steenbergen, Ellemers, Haslam, & Urlings, 2008). If the person considers it a threat, this will engage the second appraisal within the Lazarus and Folkman theory (Goh, Sawang, & Oei, 2010; Meurs & Perrewe, 2011; Newton & McIntosh, 2010). In both situations of religious belief and work stress, the Lazarus and Folkman theory was used to determine how the individual determines to cope with the stressful situation (Dewe, Cox, & Ferguson, 1993; Goh, Sawang, & Oei, 2010; Meurs & Perrewe, 2011; Newton & McIntosh, 2010; Van Steenbergen, Ellemers, Haslam, & Urlings, 2008). Webster, Beehr, and Love (2011), and Goh, Sawang, and Oei (2010) looked closely at occupational stress by using the Lazarus and Folkman theory as their study's foundation. Lazarus and Folkman theory validity was examined.

In this theory, coping consists of two types: problem-oriented, and emotion-focused. Problem-oriented concerns itself with the actual problem which is the cause of the distress, or the patient's chronically unfortunate situation (Lazarus, 1991; Padden, Connors, & Agazio, 2011; Wahl et al., 1999). Emotion-focused involves the regulation of the emotional responses toward the problem, such as how caregivers respond or handle their emotions, and how they react toward the demands of hemodialysis, or peritoneal

dialysis treatments for their loved one (Folkman, 2010; Lazarus, 1991; Padden, Connors, & Agazio, 2011; Wahl et al., 1999). It is important to assess how individuals reason, or make sense of a stressful situation to interpret the connection between coping strategies and its effects (Lindqvist, Carlsson, & Sjoden, 2000). Having a conceptual understanding of the caregiver's cognitive interpretations of the stressful situation can provide a window to view how, or what coping mechanisms they will use. This theory provided the foundation to assess coping mechanisms in caregivers of dialysis patients in the early transition from wellness to illness.

Kidney Disease

Chronic kidney disease (CKD) is a term that refers to disorders affecting the structure and function of the kidneys, which causes a reduction of kidney function over time. To determine and classify the disease stages glomerular filtration rate (GFR) is used to measure the severity and can be obtained through a blood test. A GFR of 60 or higher is considered normal range concerning kidney function, a GFR below 60 would be considered kidney disease and a GFR of 15 or lower indicates kidney failure (National Institute of Health, 2012; Levey & Coresh, 2012). If the GFR levels remain below 60 milliliters per minute during a period of 3 months, a medical doctor will give a diagnosis of CKD indicating some kidney function loss is present. Often CKD is associated with diabetes, hypertension, old age, obesity, and cardiovascular disease; however, a specific diagnosis can be difficult at times. Another diagnosis leading to loss of kidney function consists of acute kidney injury (AKI), which is an unexpected temporary loss of kidney function and may, at times, lead to death.

One in 10 American adults suffers from some level of CKD, which roughly translates to more than 20 million Americans in the United States (Centers for Disease Control and Prevention, 2014). End-stage renal disease (ESRD) is complete and permanent kidney failure, which is the result of CKD. When an individual has reached ESRD, he or she will need treatment to replace the function of the failed kidneys (CDC, 2014). Treatment for complete kidney failure consists of three specific medical treatments: hemodialysis (HD), continuous ambulatory peritoneal dialysis (CAPD), and transplantation (TP). With CAPD, the individual will self-administer dialysis at home four times a day every day and will need equipment at home to accomplish this task. In choosing HD, the person will go to a center about 3 times per week for a few hours per treatment to receive this form of dialysis. Finally, transplantation signifies the return to a somewhat normal and healthy life; although, it also requires some changes and adaptations, such as taking medication for life and avoiding hazardous foods that may jeopardize the life of the transplanted kidney. In sum, these are the possible treatments someone diagnosed with ESRD can select from, and as research continues and new medical advancements are achieved better treatments can be available.

Caregivers

In the United States approximately 9 million informal caregivers such as family and friends, assist other adults with basic activities (Rosland et al., 2013; Beanlands et al., 2005). The majority of caregivers think they are not equipped to take on a daunting task of caring for someone diagnosed with a chronic illness, but believe they could handle the caregiver role (DuBenske et al., 2014). Although family and friends are willing to take on

the role as caregivers, they fear a medical emergency could arise that would be outside their caregiving abilities (Beanlands et al., 2005; DuBenske et al., 2014). A large amount of chronically ill patients has a family member or a friend accompany them to doctor appointments on a daily basis and play a critical role in an individual's life. Family and friends spent a significant amount of time monitoring the patient's symptoms and side effects, which can hinder the caregiver's ability to attend social gatherings, and work schedules (Beanlands et al., 2005; DuBenske et al., 2014; Rosland et al., 2013).

Family and friends are a key component when making critical decisions, collecting information, providing emotional support to the patient, but are unfortunately overlooked. These individuals become the patient's caregivers, and spouses are the primary caregivers, when available and applicable, for dialysis patients (DuBenske et al., 2014; Rosland et al., 2013). Over time their mental and physical health may deteriorate along with a decline in social activities, and finances; however, it is critical to understand that burden first begins when the caregiver feels ill-equipped to handle the given situation (Dubenske et al., 2013; Northouse et al., 2012). Notably, fulfilling caregiver's needs with information, communication, and resources helps to minimize their stress levels and burden (DuBenske et al., 2013). Therefore, creating opportunities to provide coping skills, support, and information increases the odds for positive outcomes for caregivers (Dubenske et al., 2014; Goetzman et al., 2012; Rosland et al., 2013). For example, Dubenske et al., (2014) used the Comprehensive Health Enhancement Support System (CHESS), which is a web-based lung cancer information, communication, and coaching system for caregivers. Having opportunities to use programs such as CHESS grants room

for interventions to improve caregiver's coping skills, with the result of easing their mood and burden (Dubenske et al., 2014). Although the studies were not focused on caregivers caring for dialysis patients, the results mentioned would likely apply to caregivers for dialysis patients.

Researchers suggested that caregivers are confronted with morbidity when their loved one is given a life threatening diagnosis, and they found that caregivers realize the possibility of losing their loved one as a result of the chronic illness (McQuellon & Cowan, 2010; Pelletier-Hibbert & Sohi, 200). Uncertainty is what caregivers live with, which brings constant stress and fear to their everyday life (Pelletier-Hibbert & Sohi, 2001). However, Friedemann and Buckwalter (2014) found that the majority of caregivers were not clinically depressed. Instead, they found that caregivers believed to have a strong obligation to care for their ill relative did not feel overly burdened, were religious, and believed the caregiving role should be taken on by any of their family members. It was also found that the majority of caregivers seemed to have accepted and successfully reached their new norm with no help from family, or without any engagement from community services. In sum, a family member, spouse, parent, sibling, an adult child, and a friend who takes on the role of a caregiver is certain to experience life-altering events (Friedemann & Buckwalter, 2014). At one point or another, the concept of morbidity and uncertainty is certainly to cross the caregiver's path. As the authors above mentioned caregivers perspectives are all different and several variables influence how each may cope with the transition from wellness to illness for any medical

condition (McQuellon & Cowan, 2010; Pelletier-Hibbert & Sohi, 2001; Friedemann & Buckwalter, 2014). .

Life expectancy has dramatically increased in Western societies resulting in a longer lifespan, and individuals with chronic illnesses have also seen an increased in their life spans (Coyne & Fiske, 1992; Manton, 1990). As a result, individuals are living longer with chronic health conditions and coping becomes part of their normal day to day life. These individuals will need medical treatment for a longer period, which places demands and limitations on a patient, their families, and caregivers (Woods, Yates, & Primomo, 1989; Coyne & Fiske, 1992). In the United States, 30% of its population fulfills the role as a caregiver (Fox & Brenner, 2012). These caregivers include adults who care for other adults such as a parent or a spouse, and a small group consists of adult caregivers caring for an adult child (Fox & Brenner, 2012). Family and friends are identified as a critical source of support, and often the spouse is the primary caregiver making living with a chronic illness a norm for married life (Booth & Johnson, 1994; Coyne & Fiske, 1992; Rosland et al., 2013). The level of burden, satisfaction, physical, and psychosocial well-being of caregivers of an ESRD patient is receiving much attention. As a result different psychometric scales, as well as models, have been developed to measure the level of burden or satisfaction among caregivers. (Goetzmann et al., 2012; Wilson-Genderson, Pruchno, & Cartwright, 2009). An example of that is the two-factor model developed by Lawton, Moss, Kleban, Glicksman, and Rovine in 1991. It is meant to examine the burden and satisfaction experienced by caregivers of spouses with ESRD. The literature demonstrates the important role caregivers play with the need of addressing the gap of

this study. According to Wilson-Genderson, Pruchno, and Cartwright (2009), future research must address the burden and satisfaction for caregivers and patients who are transitioning from wellness to illness. Therefore, the gap existed from when he or she received the diagnosis of ESRD to the time when they started dialysis. Identifying the effective caregivers coping mechanisms during this point in time was critical, and the main intent and focus for this research study.

Transition from Wellness to Illness

As individuals move into the caregiver role, many decisions need to be made, and obstacles need to be confronted. First, they must confront the transition from wellness or illness, which is the period from being healthy to the initial diagnosis. Several factors can influence decisions as caregivers are transitioning into this period, such as personality traits, attachment, and ethnic and cultural groups.

Personality Traits

During a time of crisis, caregivers will experience intense distress emotions and identify the situation as an overwhelming scenario (Vilchinsky, Dekel, Revenson, Liberman, & Mosseri, 2015). Too often caregivers are distressed because their needs are not being fulfilled (Vilchinsky et al., 2015; Shaver, Mikulincer, & Shemesh-Iron, 2010). A caregiver's role is a burdensome task, which often reflects sociostructural differences such as marital status, sex, or education (Pinquart & Sorensen, 2003). Sociostructural aspects can determine the way in which caregivers confront their caregiving role; however, they are not the only qualities. Individual differences in personality also play a critical part in how caregivers confront their role (Hooker, Monahan, Brown, Frazier, &

Shifren, 1998; Hooker, Monahan, Shifren, & Hutchinson, 1992; Locken-hoff, Duberstein, Friedman, & Costa, 2011). The role of personality in the transitional period of caregiving may influence how individuals react toward a distress period (Rohr, Wagner, & Lang, 2013).

Emotional stability, extraversion, openness, conscientiousness, and agreeableness are five dimensions of the Big Five model of personality that can be used to distinguish and describe individual's behavioral tendencies, and their reactions toward stressors (Rohr, Wagner, & Lang, 2013; McCrae & Costa, 2008). For example, a lower score on emotional stability is correlated with negative life experiences and greater reactivity to stressful situations (Bolger & Schilling, 1991; Heady & Wearing, 1989). Often individuals who were less emotionally stable gravitated into caregiving roles or select themselves to the role of caregiving (Rohr, Wagner, & Lang, 2013). Negative and positive life experiences are also determining factors that influence an individual's personality, which in turn may impact personality traits affecting how a caregiver adapts to the new role (Rohr, Wagner, & Lang, 2013; Specht, Egloff, & Schmukle, 2011). Personality traits along with the ability to adapt to a new situation may influence the transition period from wellness to illness for caregivers, and how effectively they cope with the distress situation.

Attachment Orientation in Caregivers

Researchers use attachment theory to help explain how individuals cope with stress, manage interpersonal relationships, regulate emotions and resist illness (Bretherton, 1992; Hazan & Shaver, 1987; Morse, Shaffer, Williamson, Dooley, &

Schulz, 2012). Attachment theory was developed by Bowlby in 1969, and it focuses on the frequent interactions between a caregiver and an infant. These interactions develop a caregiver bond extending into adult relationships (Bretherton, 1992; Morse et al., 2012). This frequent interaction influences the lifelong ability to handle stressful situations and, the presence of a stressor such as a chronic illness diagnosis is likely to activate the attachment system (Bretherton, 1992; Vilchinsky et al., 2015). Attachment theory also explains why some individuals lack the ability to cope in a distress situation properly. Silverman (2011) suggested that in early childhood there was some form of maladaptive attachment with their primary caregiver; therefore, caregivers who fall under this category will develop a self-reliance autonomous coping mechanism. These types of individuals insist on being self-sufficient, independent, but also refuse to admit they are in distress indicating dissociation towards others (Silverman, 2011; Vilchinsky, Dekel, Revenson, Liberman, & Mosseri, 2015). Attachment orientations account for the ability to regulate emotions, and the relationship between caregiver burden and depressive symptoms (Vilchinsky et al., 2015).

There are three types of attachment orientations, secure, ambivalent, and avoidant. The secure attachment consists of individuals who developed a strong bond with their attachment figure (mother or primary caregiver) during infancy (Ainsworth & Bell, 1970; Bretherton, 1992; Vilchinsky et al., 2015). Securely attached individuals are confident that the attachment figure will be present to meet their needs; therefore, allowing them the freedom to explore their environment, knowing that in times of distress their attached figure will be available. Ambivalent attachment, also referred to as insecure resistant,

pertains to individuals who in their infancy failed to develop secured feelings of security from their attached figure (Ainsworth & Bell, 1970; Bretherton, 1992; Vilchinsky et al., 2015). These infants struggled to detach from their caregiver to explore their surroundings, and when distressed it was difficult for them to be comforted by their attached figure. The behavior is a result of the primary caregiver providing inconsistent levels of responses to the infant needs (Ainsworth & Bell, 1970; Bretherton, 1992; Vilchinsky et al., 2015). Avoidant attachment or insecure avoidant children do not turn toward their attachment figure while exploring his or her surroundings. These children are very independent of their attached figure both emotionally and physically; therefore when distressed they do not pursue contact with the attached figure (Ainsworth & Bell, 1970; Bretherton, 1992; Vilchinsky et al., 2015). Avoidant children are more likely to have a mother or primary caregiver who is insensitive and rejecting of the child's needs. The mother or primary caregiver withdraws from helping the child during difficult tasks, and they are unavailable during emotional distress (Ainsworth & Bell, 1970; Bretherton, 1992; Vilchinsky et al., 2015).

Secure attachment is imperative for responsive caregiving, as individuals provide and look for support that is consistent with their models of others and self (Morse et al., 2012; Simpson, Rholes, & Nelligan, 1992). The model of self-consists of the individual considering themselves to be worthy of care and the model of others consists of the person being worthy of providing trusted care (Morse et al., 2012). A negative model of self is analogous to attachment anxiety, which is when a child experiences separation anxiety from the attached figure; therefore, an individual does not believe they are worthy

of such care from a caregiver. Due to this conflict, the transition from wellness to illness potentially become burdensome for a caregiver attempting to provide the best care possible (Bartholomew & Horowitz, 1991; Brennan, Clark, & Shaver, 1998; Fraley, Waller, & Brennan, 2000; Morse et al., 2012; Simpson, Rholes, & Nelligan, 1992). A negative model of others is comparable to attachment avoidance, which occurs when a child is emotionally and physically independent of the attachment figure because the child does not have the attachment figure support. As a result, a negative model of others will make the transition from wellness to illness difficult. As it may cause a potential caregiver to feel unworthy of providing trusted care (Bartholomew & Horowitz, 1991; Brennan, Clark, & Shaver, 1998; Fraley, Waller, & Brennan, 2000; Morse et al., 2012; Simpson, Rholes, & Nelligan, 1992).

Attachment anxiety (separation anxiety) is connected to feelings of not being prepared, providing less care, more caregiver burden, and being less responsive (Sorensen, Webster, & Roggman, 2002; Carpenter, 2001; Feeney & Collins, 2001; Cicirelli, 1993; Kim & Carver, 2007; Daire, 2002; Ingebretsen & Solem, 1998; Markiewicz, Reis, & Gold, 1997; Crispi, Schiaffino, & Berman, 1997). Anxiously attached individuals believe their caregiver role is depriving them of meeting their needs and are frequently driven by self-focused attention and worries. As a result, they become highly distressed when their lives are consumed, and must take priority with their ill partner's needs over their own (Vilchinsky et al., 2015; Erez, Mikulincer, van Ijzendoorn, & Kroonenberg, 2008; Feeney & Collins, 2001; Mikulincer & Shaver, 2007). Research has suggested that attachment orientations may dictate the relationship between caregiver

burden and the ability to appropriately cope with the crisis at hand (Vilchinsky et al., 2015). In sum, attachment orientations may influence how an individual can transition from wellness to illness, and ultimately how effectively they will cope with the distress period.

Ethnic and Cultural Groups

Researchers studied the caregiver role among different cultural backgrounds in promoting the use of mental health services (Weiss, Shor, & Hadas-Lidor, 2013; Marquez & Ramirez-Garcia, 2013; Meyer et al., 2015; Koerner, Shirai, & Pedroza, 2013). Within Latino families the link between culture, family, and the relationship to mental illness is evident; however, much is still to be learned about the frequency use of mental health services (Marquez & Ramirez-Garcia, 2013; Koerner, Shirai, & Pedroza, 2013). Among Latino families, as well as with other ethnic, cultural groups, due to physical family proximity, caregiver availability is the least of their issues. The main concern is the low importance given by Latino caregivers to the real illness and treatments. (Marquez & Ramirez-Garcia, 2013; Weiss, Shor, & Hadas-Lidor, 2013; Koerner, Shirai, & Pedroza, 2013; Meyer et al., 2015). For example, within the Latino culture, the belief that the problem behavior contains a physical nature is identified with the idiom *nervios* or nervousness. The idiom *nervios* is used to identify mental illness symptoms, as well as the indication that mental illness contains a spiritual basis (Marquez & Ramirez-Garcia, 2013).

In the Vietnamese community the idiom *lan*, translating into confusion, provides an explanation to an individual diagnosed with dementia (Meyer et al., 2015). Traditional

views of mental health in the Vietnamese community is influenced by morals and religious traditions grounded from Confucianism, Buddhism, and Taoism. As a result, it may be a long time before the individual is taken to a medical office to officially be treated (Meyer et al., 2015; Marquez & Ramirez-Garcia, 2013). Having this sort of reasoning or logic may prevent from seeking the proper mental health services needed. As a result making the transition from wellness to illness burdensome and challenging (Koerner, Shirai, & Pedroza, 2013; Marquez & Ramirez-Garcia, 2013; Meyer et al., 2015; Weiss, Shor, & Hadas-Lidor, 2013; Weisman de Mamani, & Suro, 2015). In sum, these findings indicate inferences can be made on mental health beliefs of the caregiver toward the ill individual, which in turn can also be made to those patients who are sick with kidney disease.

Researchers also argue that among the ultra-Orthodox Jewish community there is a lack of utilization of mental health services (Koerner, Shirai, & Pedroza, 2013; Marquez & Ramirez-Garcia, 2013; Meyer et al., 2015; Weiss, Shor, & Hadas-Lidor, 2013; Weisman de Mamani, & Suro, 2015). The presence of religious beliefs strengthens the ability for family members to cope with the stressors of caring for a chronically ill family member. However, it could also bring a conflict to the household (Koerner, Shirai, & Pedroza, 2013; Marquez & Ramirez-Garcia, 2013; Meyer et al., 2015; Weiss, Shor, & Hadas-Lidor, 2013; Weisman de Mamani, & Suro, 2015). The ultra-Orthodox live in a collectivistic community; therefore, general knowledge of prejudice toward mental illness is known not allowing caregivers the freedom to obtain the proper mental health services. Potentially this is due to the lack of resources; however, ultra-Orthodox families keep

mental illness a secret, so they do not bring shame to the family (Weiss, Shor, & Hadas-Lidor, 2013). The awareness of a family being in need of mental health services will forever mark the family with shame, and disgrace as the household lives as outcasts. Therefore, by living in secrecy, the family believes they are also protecting the rest of the family by maintaining the ability to provide their children the opportunity of marrying into good families (Weiss, Shor, & Hadas-Lidor, 2013). In sum, cultural and religious beliefs may hinder caregivers to seek the necessary help when confronted with stressors, making the transition period from wellness to illness cumbersome.

Unlike Weiss, Shor, and Hadas-Lidor (2013), Weisman de Mamani, and Suro (2015) concluded that a culturally informed treatment incorporating traditions, and spiritual practices potentially diminish caregiver burden. The levels of self-blame and guilt also decline; these results may contain critical clinical implications to improve family treatments. Caregivers who do not use mental health services reported considerably higher symptoms of depression compared to caregivers who utilized mental health services (Weisman de Mamani & Suro, 2015). Culture and religion can hinder the adherence of caregivers seeking mental health services when caring for an ill family member; therefore, the transition from wellness to illness may become a difficult process as well as the path ahead (Weisman de Mamani, & Suro, 2015).

The aforementioned is relevant to the current study because the factors discussed are variables that may contribute how caregivers approach their role and help explain the reasons caregivers decide on the approach taken. Although in the current study, personality traits, attachment orientations, and ethnic and cultural groups are factors that

are not specifically being studied, they are potential variables that may influence how caregivers confront or cope with the transition period from wellness to illness. However, it is important to note that even if these variables are not the focus of this study, they are relevant variables that need attention for potential future research. While they are underlying factors for the current study, these variables may dictate how well caregivers cope with their role as caregivers of dialysis patients. In sum, it can be noted that individuals who do not seek mental health services, or who do not incorporate culture and spiritual practices experience more symptoms of depression causing problems during the transition period. Also, the development of attachment to one's primary caregiver during infancy, as well as personality traits such as emotional stability and the ability to adapt to a new situation, can dictate how caregivers decide to cope during the early transition from wellness to illness. Although the studies were not focused on caregivers caring for dialysis patients, the results mentioned would likely apply to caregivers meeting this criterion. Caregiver burden and satisfaction is another important facet that requires careful attention in this literature review. The following section provides a discussion how caregiver burden and satisfaction play a critical role for caregiver coping. .

Caregiver Burden and Satisfaction

Becoming a caregiver is often not a voluntary decision, but a decision driven by necessity. In the United States, 30% of the population fulfills the role as a caregiver (Fox & Brenner, 2012). These caregivers include adults who care for other adults such as a parent or a spouse, and a small group consists of adult caregivers caring for an adult child (Fox & Brenner, 2012). Caregivers absorb a complex number of activities and

responsibilities consisting of patient illness day-to-day treatments, management of diets, medications, symptoms, and personal care (Beanlands et al. 2005; Fox & Brenner, 2012; Friedemann & Buckwalter, 2014; Papastavrou, Kalokerinou, Papacostas, Tsangari, & Sourtzi, 2007). However, the most common tasks included, symptom management, coordinating appointments, managing supplies, meal preparations, and transportation. Too often, individuals do not have the adequate preparation nor the knowledge to take on this new role filled with critical responsibilities (Beanlands et al., 2005; Friedemann & Buckwalter, 2014). Other tasks and responsibilities that caregivers absorb may include housekeeping, household maintenance, yard work, and child care (Beanlands et al., 2005; Friedemann & Buckwalter, 2014; Vilchinsky, Dekel, Revenson, Liberman, & Mosseri, 2015). In some circumstances, these duties are now completely absorbed by the caregiver and, in other situations, the caregiver was already doing them, or simply added more to his or her duties. In addition to the tasks mentioned above, caregivers may have to take on the responsibility of assisting with the administration of dialysis at home. Caregivers can absorb more, or fewer responsibilities and activities depending on the modality of dialysis, which may increase the level of burden. For example, home peritoneal dialysis will have more tasks and responsibilities for caregivers compared to in-center hemodialysis (Beanlands et al., 2005; Friedemann & Buckwalter, 2014; Vilchinsky et al., 2015). Home dialysis is self-care and performed independently; however, often adult caregivers may assume complete responsibility for home dialysis and all other responsibilities associated with the procedures (Srivastava, 1988; Wellard & Street, 1999; Beanland et al., 2005).

Research suggests that motivation and support reinforce the caregiver's self-care efforts in preserving their self-worth (Beanlands et al., 2005; Friedemann & Buckwalter, 2014). Using available resources, and coping with emotional demands is one way to deal with the stresses that caregiving brings (Beanlands et al., 2005; Friedemann & Buckwalter, 2014). Another aspect that could help caregivers with the burden or satisfaction is the process of normalization and routinization. Normalization is the process in which the ill spouse accepts home dialysis as a solution to his or her treatment management, reducing stress levels for both parties. Routinization involves what to do in case of accidents, managing technology, coping with interactional effects of dialysis situations, the marriage, and establishing a division of work between spouses. These procedures can help alleviate, and cope with stress providing satisfaction to their situation (Beanlands et al., 2005).

Several factors contribute to the burden and satisfaction for caregivers, such as some of the factors discussed above, which contributes to how caregivers may handle the early transition period from wellness to illness. The level of burden or satisfaction that a caregiver may experience depends on their interpretation of the intensity of the tasks and or responsibilities they have acquired. How they believe their new normal and routine is affecting their life can influence burden or satisfaction within their role as a caregiver. Using available resources at their disposal to cope with emotional demands will contribute to their level of satisfaction. The level of burden and or satisfaction caregivers experienced helped determine caregiving coping during the early transition from wellness to illness for the current study.

Coping Mechanisms

Coping mechanisms are critical regarding how well a person adapts to a new situation, especially when dealing with a chronic medical condition. It is imperative to comprehend factors that can help diminish caregiver anxiety and caregiver coping because caregiver adjustment impacts the coping ability as they come to terms with their family member's illness (Bettoli-Vaughan, Brown, Brown, & Baldwin, 1998; Walsh, 2006). Although chronic medical conditions place many demands on caregivers, they adapt in a flexible way by gathering resources (Gerhardt et al., 2007; Greeff & Wentworth, 2009; Kepreotes, Keatinge, & Stone, 2010; Walsh, 2003). Two factors of resilience are hardiness and family functioning, which influences family member's mental health when confronted with stressors (Walsh, 2006). Hardiness assesses family attitudes, and the capacity to respond to stressful events measuring the internal strength and durability (Knafl, Knafl, Gallo, & Angst, 2007; McCubbin, Thompspon, & McCubbin, 1987). Family function measures family problem solving, communication, role involvement, affective responsiveness, general family functioning, and behavioral control (Nabors et al., 2013). These components can be key factors to how well an individual will cope when confronted with a chronic medical diagnosis of a family member.

Research suggests that religion and spirituality are other factors that influence coping mechanisms (Falb & Pargament, 2013; Rathier, Davis, Papandonatos, Grover, & Tremont, 2013). Falb and Pargament (2013) suggested that psychology has increasingly become interested in the area of religion and spirituality over the last few decades;

therefore, coping mechanisms can be developed from a spiritual or religious foundation. Research suggested that those caregivers who focused on religious coping, centered on working with God conveyed having fewer depressive symptoms (Rathier et al., 2015; Falb & Pargament, 2013). Working with God was defined as working in partnership with God, and using personal resources to help oneself and then turning control over to God (Falb & Pargament, 2013; Rathier et al., 2015). Positive coping functions within religion and spirituality consist of, meaning making, growth and actualization, intimacy, and a search for what is sacred (Falb & Pargament, 2013). In some instances, caregivers of end-of-life patients have utilized Buddhist coping methods, and positive coping methods to confront caregiving stressors (Falb & Pargament, 2013). Likewise, Rathier et al., (2015) suggested religion and spirituality provided positive aspects for caregiver distress situations; however, every caregiver may not have the same physical health allowing them to attend religious practices.

Different family roles influence how a person will approach their caregiver role; therefore, depending if they are a woman, a man, a son, a daughter or a spouse contributes to, which coping mechanisms are chosen. For example, research has found that women experience more stress and burden compared to men, which is consistent with gender role theory (Friedemann & Buckwalter, 2014; Hong & Kim, 2008; Sanders, 2007; Stewart et al., 2014; Thompson et al., 2004). Gender role theory pertains to the notion of societal expectations placed on females and males. These role expectations are known and accepted within the community, which its members agree to reinforce and follow (Friedemann & Buckwalter, 2014; Littlejohn & Foss, 2009). Various strategies

can be used to reinforce gender roles, such as using stereotypes and descriptions of what a typical male or female should sound, look, or behave (Littlejohn & Foss, 2009). For example, women tend to be more emotional; therefore, female caregivers are natural nurturers and make better connections with patients compared to men (Beeber & Zimmerman, 2012; Friedemann & Buckwalter, 2014). Female caregivers less frequently ask for outside help, even if resources are available for them to utilize (Bedard et al., 2005; Brank & Wylie, 2014; Friedemann & Buckwalter, 2014). Male caregivers choose to place their loved ones with higher caregiving needs into institutions and opt for outside help. This form of coping serves as a mechanism to protect their physical and emotional health, as well as to maintain their masculinity (Friedemann & Buckwalter, 2014).

Before the turn of the century a male caregiver was not a popular role; however, today the workforce provides the platform for men to work as caregivers and still uphold their masculinity in society (Calasanti & King, 2007; Friedemann & Buckwalter, 2014; Robinson et al., 2014). For example, male caregivers of Alzheimer patients tend to focus on challenging job tasks that need problem-solving, they solve it and gives them a sense of achievement (Phinney, Dahlke, & Purves, 2013). As a result, male caregivers block any emotional connections, and or reactions toward their role (Calasanti & King, 2007; Robinson, Bottorff, Pesut, Oliffe, & Tomlinson, 2014; Russell, 2007). Friedemann and Buckwalter (2014) also suggested that currently men are more willing to accept their role of caregivers, and care for relatives with fewer functional limitations compared to women. Men still have less caregiving tasks compared to women (Fife, Weaver, Cook, & Stump, 2013; Friedemann & Buckwalter, 2014).

Other family members who fulfill the role of caregivers are spouses. Spousal caregivers experience higher levels of burden and depression compared to any other family members (Friedemann & Buckwalter, 2014; Pinquart & Sorensen, 2003). Female spouses are least likely to obtain help compared to male spouses, and if they obtained the relief, it is for a short period, as they may feel a sense of betrayal toward their spousal relationship (Robinson, Buckwalter, & Reed, 2005). The spousal caregiver role is different from any other family role because their marriage is the most important relationship in their lives (Savundranayagam, 2014). In general, caregivers experience an emotional burden, which brings anxiety about the potential loss of their loved one. However, in the case of spouses, it can also be the loss of their relationship with their husband or wife (Fife, Weaver, Cook, & Stump, 2013; Friedemann & Buckwalter, 2014; Savundranayagam et al., 2011). Friedemann and Buckwalter (2014) suggested that most of the caregivers in their study were relatively healthy, and they were not clinically depressed. However, they had a sense of obligation to care for their ill relative, did not feel an over burden, highly religious, and believed that any other family member can take on a caregiving role if needed. Fife, Weaver, Cook, and Stump (2013) reached a slightly different conclusion. The conclusion consisted that in a dyadic relationship they found that caregivers were more distressed, which was indicated by negative affect (emotional response). Although Fife, Weaver, Cook, and Stump (2013) suggested there were no significant differences by gender, likewise Friedmann and Buckwalter (2014) found that female caregivers reported an overwhelming amount of burden. As one of their caregivers stated, "If he dies while I am taking care of him, it will be my fault"

(Friedmann & Buckwalter, 2014). Others like Johnson et al. (2013) suggested that a higher marital quality was linked to better overall coping. When couples cope together by doing relaxation sessions, exercise, follow a healthy eating regimen and have joint discussions the ability to adhere to the recommended regimen is more effective (Johnson et al., 2013). Therefore, the couple's ability for illness-specific coping efforts increases. The conflicting findings between Friedemann and Buckwalter (2014) and Fife, Weaver, Cook, and Stump (2013) could be a result of the specific targeted group they researched. Friedemann and Buckwalter (2014) focused on gender role differences among caregivers, which included spouses and men and women in general. Fife, Weaver, Cook, and Stump (2013) on the other hand, focused only on the partner interdependence and the specific impact on the couple's adjustment, noting no gender differences between a male or female caregiver spouses. The above discussion provided an analysis of potential differences that exists among caregivers effective coping mechanisms, and how different aspects influences the development of coping mechanisms. The literature content on the various aspects influencing coping mechanisms provided a platform for the current study. Although the material did not focus on caregivers caring for dialysis patients, correlational analyses was made regarding these relationships, which were applied to our current study.

Several researchers have used the Jalowiec Coping Scale (JCS) for their research interests, such as to research the perspectives of rural caregiver's distress (Buettner & Langrish, 2001; Bedard, Koivuranta, & Stuckey, 2004; O'Connell, Germaine, Burton, Stewart, Morgan, 2012). The JCS was developed in 1977 and is one of the scales that was

used for the current study. Other research conducted using the JCS to measure effective coping mechanism consisted of caregivers coping with cancer and bipolar patients (Gaugler, Eppinger, King, Sandberg, & Regine, 2013; Jonsson, Wijk, Danielson, & Skarsater, 2011). Jonsson, Wijk, Danielson, & Skarsater (2011) and Fialho, Koenig, Lemos dos Santos, Barbosa, and Caramelli (2012), used an intervention in their research studies to examine and analyze caregiver coping styles, and by using the JCS, these specific coping styles were examined. The JCS is discussed further in Chapter 3.

Quality of Life

The concept of quality of life (QOL) has many definitions and can be described in multidimensional ways (Colver, 2009; Felce & Perry, 1995). The quality of life is a concept viewed from different perspectives, such as from a community well-being to an individual viewpoint, and or groups (Felce & Perry, 1995). It incorporates objective and subjective accounts of social relationships, local environment, personal feelings, societal values, political institutions, international relations, and economic conditions (Colver, 2009; Kuyken, 1995). The quality of life can also be defined as an individual and a personal question extending into a philosophical approach instead of a scientific approach (Slevin, Plant, Lynch, Drinkwater, & Gregory, 1988). Physical health impacts the quality of life in how the individual perceives their position in life within the culture they live relating to their expectations, goals, and concerns (Saxena, Orley, 1997; Slevin et al., 1988).

There is abundant of researchers who have studied and researched the concept of quality of life and used the Quality of Life (QOL) instrument in their studies. Brookes et

al. (2014), Su, Ng, Yang, Lin (2014), and Hall, Krahn, Horner-Johnson, and Lamb (2011) used the QoL assessment in their studies. Some of the research focused on the relationships between executive dysfunction (neuropsychological impairment), awareness deficits, and the perception of QoL among patients who suffered from cerebral small vessel disease (SVD). The research also examined the QoL among schizophrenia patients and their daily activities by using the QoL Scale Brief Version (WHOQOL-BREF) (Brookes et al., 2014; Su, Ng, Yang, & Lin, 2014). Caregiver perceptions, specifically caregivers who care for a loved one with Alzheimer's' is the focus among several researchers using the QoL assessment (Conde-Sala, Garre-Olmo, Turro-Garriga, Vilalta-Franch, & Lopez-Pousa, 2010; Conde-Sala, Garrel-Olmo, Turo-Garriga, Lopez-Pousa, & Vilalta-Franch, 2009). Kim and Spillers (2010) focused on the initial turmoil of the diagnosis period and treatment, which they defined as approximately two years post-diagnosis. The authors focused on family caregivers and their quality of life. The results corroborated the idea that QoL is a multidimensional construct consisting of different components that are connected but differ from each other. The QoL assessment was the second scale that was used in this study. A further analysis of this scale was discussed in chapter 3.

Summary

This literature review focused on several aspects related to the coping mechanism for caregivers of dialysis patients during the early transition from wellness to illness. Some of the points covered were the theoretical framework, the role of caregivers dealing with patients who have been diagnosed with a chronic disease, the transition from

wellness to illness, caregiver burden and satisfaction, and coping mechanisms. In conclusion, the current study continued to focus on coping mechanisms among caregivers of dialysis patients during the transition period from wellness to illness. While researching and analyzing the literature, many resources were found on caregivers and coping mechanism for several chronic diseases, specifically, ESRD. The resources, however, did not focus on the early transition period from wellness to illness, providing the need for further research and filling in the gap of the current study. Investigating the specific period during the transition from wellness to illness potentially offered a positive social change for this targeted population. Developing an effective coping mechanism strategy program assisted the targeted group through the early distress period, potentially establishing effective coping mechanisms in their journey ahead.

In Chapter 3, I cover the following topics: data collection, sample characteristics, instruments, threats to validity, and ethical considerations.

Chapter 3: Research Method

Introduction

The purpose of this quantitative correlational study was to identify how caregivers in California coped during the transition period between wellness to illness of patients with CKD. The WHOQOL-BREF Scale measured the quality of life domains while the Jalowiec Coping Scale measured the coping skills of the caregivers. The dependent variables were the quality of life domains, while the independent variables were the coping skills. Multiple regression analyses were used to determine the relationship between the study variables.

This chapter also covered the problem statement, the research questions and hypotheses, research methodology and research design, population, sample, data collection, data analysis, and ethical considerations.

Research

A quantitative approach was used to objectively measure variables with questionnaires or surveys and thus gathering numerical data (Rawbone, 2015). A correlational design was used to investigate the association between variables. As such, the primary objective of the design was to measure the behavior and strength of any relationship between two variables (Leedy & Omrod, 2010). This design was appropriate since this study did not involve any manipulation of variables or the use of a controlled experimental research setting (Goertz & Mahoney, 2012). Also, the design was consistent with the study's research questions since all questions examined the relationships among the variables.

Methodology

Population

According to the Family Caregiver Alliance (2015), there are 65.7 million informal and family caregivers in the United States. The target population of this study was the caregivers of patients receiving dialysis at home or at kidney dialysis centers across-California.

Sampling and Sampling Procedures

Purposive sampling was conducted to make sure that participants were within the parameters set for the study (Haas, 2012). This type of sampling ensured credibility and circumvented potential biases in the selection of participants. The inclusion criteria for this study were the following: the participant (a) must be a caregiver of a patient diagnosed with ESRD and undergoing dialysis, (b) must have been a caregiver no more than 5 years, and (c) must be at least 18 years old.

The selected kidney care organization, from which the population was chosen, is a leading kidney care provider that offers administrative services at 2,318 outpatient dialysis centers and serves approximately 199,000 patients across the United States. It also has 139 outpatient dialysis centers in other 11 countries.

The sample size for this study was computed using three parameters. These three parameters were the level of significance, power, and effect size. For the level of significance, this is usually set equal to $\alpha = .05$ (Hox, 2002). The significance level, also denoted as alpha or α , is the probability of rejecting the null hypothesis when it is true. Therefore, for a significance level of 0.05, it can be expected to obtain sample means in

the critical region 5% of the time when the null hypothesis is true. The power of a statistical test corresponds to the probability of falsely rejecting a null hypothesis. In other words, the power of a study is its ability to detect a difference, if the difference in reality exists. A power of 80% is often chosen; hence a true difference will be missed 20% of the time. Further, a statistical power of 80% is considered to be a high power since it keeps the sample size reasonable and within acceptable limits (Hox, 2002).

Finally, effect size refers to the magnitude, or size, of an effect (Haas, 2012). The effect sizes can be divided into three categories, namely small, medium and large effect size (Haas, 2012). A medium effect size will be used since it strikes a balance between being too strict or too lenient in determining the magnitude of an effect (Haas, 2012). Setting the power of the test to 80%, the level of significance to $\alpha = .05$ and the effect size to medium, the resulting minimum sample size required for the study was 128. That is, there were at least 128 caregivers who completed the two survey instruments for this study. The sample size for this study was calculated in G*Power.

Procedures for Recruitment, Participation, and Data Collection

An IRB approval letter was obtained from Walden University before any data were conducted (Approval No. 10-25-17-0312095). The researcher already secured permission from the administrators of the large kidney care organization across California to conduct the study. Consent forms and both survey scales were provided to dialysis centers across California. The dialysis centers designated an employee that distributed the consent forms and surveys to interested participants who met the criteria for the study.

Participants interested in participating in the study needed to first look at the flyer provided in English and Spanish. Participants also needed to view the informed consent form, which included information explaining the purpose of the study, instructions on how to answer the survey and test questionnaires, risks and benefits, anonymity, and confidentiality of the participation. Once the caregiver was presented the informed consent form, he or she was asked to read carefully the information provided, and at the end needed to decide whether he or she wanted to participate in the study or not. If the caregiver wanted to participate, he or she was given the two surveys to complete. On the other hand, if the caregiver did not want to participate, then he or she did not receive any surveys to complete. The latter would consequently prompt to immediately thanking the potential participant.

Once the caregiver agreed to participate in the study, he or she was given the two surveys. The surveys included the WHOQOL-BREF Scale and the Jalowiec Coping Scale, both available in English and Spanish. Participants then commenced completing the scales, which lasted approximately 15-20 minutes. The participants were notified that they can withdraw from the study any time by turning in the surveys back to the designated dialysis employee. By returning the surveys, this meant that they did not like to participate.

Instrumentation and Operationalization of Constructs

There were two instruments used to measure the variables of this study and these were the WHOQOL-BREF Scale and the Jalowiec Coping Scale. A demographic survey was included in the WHOQOL-BREF Scale and Jalowiec Coping Scale. The

demographic survey included questions regarding age, sex, highest educational attainment, and the number of years as a caregiver.

WHOQOL-BREF Scale

The WHOQOL-BREF (World Health Organization, 1991) was a short form quality of life assessment that looks at four domain level profiles of the quality of life. These domains were physical health, psychological, social relationships, and environment. The physical health domain included facets of activities of daily living, mobility, work capacity, and pain and discomfort among others. The psychological domain included facets of positive feelings, negative feelings, self-esteem, spirituality, and learning among others. The social relationships domain included facets of personal relationships, social support, and sexual activity. The environment domain included facets of financial resources, home environment, opportunities for acquiring new information and skills, physical environment, and transport among others.

The complete WHOQOL-BREF questionnaire contained a total of 26 questions. Specifically, one item from each of the 24 facets across the four domains were included and two items from the overall quality of life and general health facet. In the end, the WHOQOL-BREF provided a quality of life profile of the respondent. The quality of life profile was done by computing the four domain scores where each domain score denotes the participant's perception of quality of life in that particular domain. Domain scores were scaled in a positive direction (i.e. higher scores denote higher quality of life). The mean score of items within each domain was used to calculate the domain score. Mean

scores were then multiplied by four to make domain scores comparable with the scores used in the WHOQOL-100.

WHOQOL-BREF's psychometric properties were analyzed using cross-sectional data obtained from a survey of adults carried out in 23 countries ($n = 11,830$). Sick and well respondents were sampled from the general population, as well as from hospital, rehabilitation, and primary care settings, serving patients with physical and mental disorders and concerning quotas of relevant socio-demographic variables. The WHOQOL-BREF self-assessment was completed, together with socio-demographic and health status questions. Analyses of internal consistency (all Cronbach's alphas for all domains are greater than 0.70), item-total correlations (all Cronbach's alphas for all domains are greater than 0.70), discriminant validity and construct validity (factor loadings are above 0.05) through confirmatory factor analysis, indicate that the WHOQOL-BREF has good to excellent psychometric properties of reliability and performs well in preliminary tests of validity (Skevington, Lofty, & O'Connell, 2004). Gholami, Jahromi, Zarei, and Dehghan (2013) made use of WHOQOL-BREF in measuring the quality of life in healthcare staff. The authors reported that WHOQOL-BREF questionnaire is a reliable instrument to measure the quality of life in health-care staff. Specifically, from the data, it appears that the health-care staff has WHOQOL-BREF scores that might be considered to indicate a relatively moderate quality of life. Therefore, this scale will be used to measure the dependent variables for the study, which are the quality of life domains.

Jalowiec Coping Scale

Jalowiec Coping Scale consisted of 40 coping behaviors culled from a comprehensive literature review, which was rated on a 1–5-point scale to indicate the degree of use. The eight coping styles included in the scale were confrontative, evasive, optimistic, fatalistic, emotive, palliative, supportant, and self-reliant. Confrontative style referred to facing up the problem whereas evasive style indicated avoiding the problem. Optimistic style referred to positive thinking, fatalistic style was a pessimistic attitude, and emotive style concerns with releasing emotions. Further, palliative style refers to a person feeling better, supportant style indicates using support systems such as family and friends, and self-reliant style refers to being independent.

Jalowiec, Murphy, and Powers (1984) conducted a study to test the psychometric properties of the scale. Twenty judges classified the items to permit analysis of the coping behaviors according to a problem-oriented/affective-oriented dichotomy; 15 problem and 25 affective items resulted. Overall agreement by the judges was 85%, with greater consensus on problem items. Evaluation of stability using a 2-week retest interval ($N = 28$) yielded significant of .79 for total coping scores, .85 for problem, and .86 for affective. With a one-month interval ($N = 30$) coefficients were .78, .84, and .83, respectively. Alpha reliability coefficients of .86 ($N = 141$) and .85 ($N = 150$) supported instrument homogeneity. Content validity is substantiated by the systematic manner of tool development, by a large number of items used, and by the inclusion of various coping behaviors. Factor analysis ($N = 141$) was used to investigate construct validity. A two-factor solution to evaluate the validity of the dichotomous classification showed that 80% of the problem items loaded on Factor I, but only 56% of the affective items loaded

on Factor II. To examine this multidimensional aspect, several other factor solutions were explored. Other researchers tested the reliability and validity of the scale, and all found out the scale provides high reliability and consistent validity in measuring the eight styles mentioned above (Lindqvist et al., 2000; Ulvik et al., 2008). Therefore, this scale was used to measure the independent variables for the study which were the coping skills of the caregivers.

Data Analysis Plan

The following research question and its associated hypotheses were addressed in data analysis:

RQ. How do the coping skills manifested by caregivers during the transition from wellness to illness of patients with ESRD relate to the quality of life domains?

H₀: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the physical health domain, as measured through the WHOQOL-BREF Scale.

H_a: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly predict scores on the physical health domain, as measured through the WHOQOL-BREF Scale.

H2₀: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the psychological domain, as measured through the WHOQOL-BREF Scale.

H2_a: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly relate to the psychological domain, as measured through the WHOQOL-BREF Scale.

H3₀: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the social relationships domain, as measured through the WHOQOL-BREF Scale.

H3_a: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly relate to the social relationships domain, as measured through the WHOQOL-BREF Scale.

H4₀: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with

ESRD do not significantly relate to the environment domain, as measured through the WHOQOL-BREF Scale.

H4_a: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly relate to the environment domain, as measured through the WHOQOL-BREF Scale.

All hypotheses were tested using a multiple regression analysis with backward elimination method since all variables were entered at once and where the dependent variables were the four quality of life domains and the independent variables were the eight coping skills. Multiple regression was deemed appropriate because the abovementioned hypotheses dealt with determining the relationship between multiple independent variables to a specific dependent variable. Specifically, the purpose of this study was to predict the value of the independent variable (coping style) based on the value of two or more other variables (quality of life domains).

As regression analysis was a parametric technique, assumptions governing such statistical test were tested first. There major assumptions were met, and these were linearity, homoscedasticity, and normality. The assumption of linearity referred to the relationship between the variables following a straight line when plotted (Bücher, Dette, & Wieczorek, 2011). The violation of linearity assumption indicated that the predicted value, just like in a regression analysis, can be questionable. To investigate whether there was a violation or not of the linearity assumption, a scatter plot was created with the

standard regression output. When data points were symmetrically distributed around a diagonal line in the observed versus predicted values plot, or a horizontal line in the residuals versus predicted values plot, the assumption of linearity was confirmed (George, Seals, & Aban, 2014). On the other hand, if nonlinearity existed, a nonlinear transformation to the dependent or independent variables was warranted first before the conduct of the regression analysis.

The homoscedasticity assumption indicated the equal variance of all values of the independent variables around the regression line (Cano, Carazo, & Salmerón, 2013). Just like in linearity assumption, violation of the homoscedasticity assumption can be detected using scatter plots. Specifically, breach of this hypothesis can be observed when residuals form a megaphone structure, which indicates that residuals are getting larger either as a function of time or as a function of the predicted value. If the assumption of homoscedasticity is violated, problems on determining the true standard deviation of the forecasted errors arise and result in too wide or too narrow confidence intervals. Also, to scattering plots, this assumption can also be tested using Levene's test. For the Levene's F test, a *p*-value, which is greater than the critical value of 0.05, would mean that the data has equal variances between groups.

The last assumption was concerning the normality of data or the error distribution of data. Violation of the assumption of normality existed when the error distribution was tilted by the occurrence of a few significant outliers. Breach of this assumption were detected using a normal probability plot of the residuals. A normal probability plot was generated to test the assumption of normality of data. Normality of data was observed if

the points on this plot closely fell to the diagonal line. On the other hand, non-normality was observed when a bow-shaped pattern of deviations forms from the existing diagonal line. Also, to further test for normality of data, a Kolmogorov-Smirnov test was done. For the Kolmogorov-Smirnov test, a p -value, which is greater than the critical value of 0.05, means that the data being tested was normally distributed.

Collected data was exported to a Microsoft Excel sheet. The researcher then preprocessed the data by looking into missing data or other anomalies in the data set. Missing data was excluded from the main analysis. After a complete and full data set had been achieved, the data set was then imported to the SPSS Version 22 for the main analysis.

Threats to Validity

Threats to validity, such as selection bias or selection threat were addressed in the manner in which participants were selected. Caregivers were chosen using purposive random sampling, ensuring equal chances for caregivers to be chosen but at the same time ensuring that they are within the eligibility criteria for participants set forth for the study. The participants met the study criteria before the survey questionnaires to avoid participation by caregivers who were not constantly taking the role with ESRD patients undergoing dialysis. Other threats may have an impact on the study such as vulnerability to a history or maturation threat. These threats were minimized through the previously mentioned selection process since the participants could become more adaptable to the environment of being caregiver through time. These threats could have a significant impact on the findings since the results may have occurred due to other exposures.

Ethical Procedures

In any research, protection of human subjects and ethical principles in data collection were observed. As such, the researcher ensured adherence to all ethical principles in conducting research as outlined by Walden University's IRB. First, IRB permission to conduct the research was secured before any data collection commenced. All data was kept in a filing cabinet (hard copies) within the researcher's personal working office. All data shall be stored for 5 years, and afterward shall be disposed of properly by deleting the soft copy files and shredding all hard copies related to the data collected.

Summary

This chapter provided an overview of the methodology for this study. The study utilized a quantitative methodology with correlational research design. The focus of this study was to identify how caregivers cope during the transition period between wellness to illness and identified if any effective coping mechanisms existed. The research questions were aligned to the problem statement. The answers to the questions provided insight into the depth of the association between quality of life and coping skills of caregivers. Moreover, the research questions were aligned to the methodology, since the data gained from this study were quantitative and predictive in nature.

The instruments, data collection procedures, and data analysis approach were designed to capture quantitative data to determine the relationships among the variables accurately. The data for this study were ordinal and were measured using two survey instruments: the WHOQoL-BREF Scale and the Jalowiec Coping Scale. The target

population of participants yielded a sample size of 128 students. The data were collected and analyzed in a manner that satisfies quantitative protocols required by the multiple regression tests.

In Chapter 4, I cover the following topics: results, data analysis, and hypothesis testing, as well as the coping skills that were manifested by caregivers during the transition from wellness to illness,

Chapter 4: Results

Introduction

The purpose of this quantitative correlational study was to identify how caregivers cope during the transition period between wellness to illness in patients with CKD. The burden and life satisfaction during the transition, or when hemodialysis began, is an important shift. The dependent variables for the study were the quality of life domains of physical health, psychological, social relationships, and environment, which were measured using the WHOQoL-BREF Scale. The independent variables (the confrontative, evasive, optimistic, fatalistic, emotive, palliative, supportant, and self-reliant coping skills) were measured using the Jalowiec Coping Scale. Descriptive statistics analysis and multiple linear regression analysis were conducted to address the objectives of this current study.

This chapter includes a discussion of the data collection and the sample demographics, followed by a discussion of the results, including reliability analysis, descriptive statistics, assumption testing, and research question/hypothesis testing.

Data Collection

Data were collected on a sample of caregivers of dialysis patients receiving dialysis at home or at kidney dialysis centers across California. The minimum sample size requirement, based on the G*power sample size computation, was 128 samples; this study was able to satisfy that requirement. The sample size was thus large enough to generate at least 80% power in the statistical analysis.

Results

Reliability Analysis

The reliability of the instruments used for this current study were tested for internal consistency using Cronbach's alpha. In Table 1, the reliability coefficients of the WHOQoL-BREF Scale (used to measure the four quality of life domains) and the Jalowiec Coping Scale (used to measure the eight different coping skills) are presented.

For the WHOQoL-BREF, all four quality of life domains of physical health ($\alpha = 0.81$), psychological ($\alpha = 0.84$), social relationships ($\alpha = 0.74$), and environment ($\alpha = 0.91$) have acceptable reliabilities or internal consistencies, since the Cronbach's alpha values are greater than the minimum acceptable value of 0.70 (Cronbach, 1951). The quality of life domain of environment ($\alpha = 0.91$) has more than acceptable or excellent reliability. Overall, the 26-item WHOQoL-BREF instrument ($\alpha = 0.95$) has excellent reliability or internal consistency.

For the Jalowiec Coping Scale, only two of the eight coping skills, confrontative ($\alpha = 0.79$) and evasive ($\alpha = 0.70$), had acceptable reliabilities or internal consistencies. On the other hand, the six coping skills of optimistic ($\alpha = 0.60$), fatalistic ($\alpha = 0.34$), emotive ($\alpha = 0.61$), palliative ($\alpha = 0.41$), supportant ($\alpha = 0.41$), and self-reliant ($\alpha = 0.34$) did not have acceptable reliabilities or internal consistencies. However, it should also be noted that, overall, the 60-item Jalowiec Coping Scale ($\alpha = 0.89$) has an acceptable reliability or internal consistency, since the Cronbach's alpha value is greater than 0.70,

Table 1

Cronbach's Alpha Reliability Coefficients of WHOQoL-BREF and Jalowiec Coping Scale

Instrument	Domain	Cronbach's alpha	No. of items
WHOQOL-BREF	Physical Health Domain 1	0.81	7
	Psychological Domain 2	0.84	6
	Social Relationships Domain 3	0.74	3
	Environment Domain 4	0.91	8
	Overall WHOQoL-BREF	0.95	26
Jalowiec Coping Scale	Confrontive Coping Skills	0.79	10
	Evasive Coping Skills	0.70	13
	Optimistic Coping Skills	0.60	9
	Fatalistic Coping Skills	0.34	4
	Emotive Coping Skills	0.61	5
	Palliative Coping Skills	0.41	7
	Supportant Coping Skills	0.41	5
	Self-Reliant Coping Skills	0.34	7
	Overall Jalowiec Coping Scale	0.89	60

Descriptive Statistics Summaries of Study Variables

Regarding the responses about the quality of life, more than half of the 128 caregivers of dialysis patients responded that they have good (59; 46.1%) or very good (26; 20.3%) quality of life (See Table 2). Regarding satisfaction with current health, more than half of the 128 caregivers of dialysis patients responded that they were satisfied (66; 51.6%) or very satisfied (22; 17.2%) with their health.

Table 2

Frequency and Percentage Summaries of Responses on Overall Quality of Life and General Health

	Frequency	Percent
How would you rate your quality of life?		
2 Poor	1	0.8
3 Neither poor nor good	42	32.8
4 Good	59	46.1
5 Very Good	26	20.3

How satisfied are you with your health?		
1 Very dissatisfied	1	0.8
2 Dissatisfied	2	1.6
3 Neither satisfied nor dissatisfied	37	28.9
4 Satisfied	66	51.6
5 Very satisfied	22	17.2

Scores for the variables of interest are computed and the descriptive statistics summaries are computed to summarize the data of the scores for quality of life domains and coping skills among the 128 caregivers. Descriptive statistics summaries for the scores of quality of life domains are presented in Table 3. Based on the mean scores, it should be noted that the 128 samples of caregivers have high levels of quality of life in terms of physical health ($M = 28.23$; $SD = 3.30$), psychological ($M = 24.07$; $SD = 3.12$), social relationships ($M = 11.04$; $SD = 1.87$), and environment ($M = 29.66$; $SD = 4.35$) since the mean scores are at the high end of the range of possible scores.

Table 3

Descriptive Statistics Summaries of Scores for Quality of Life Domains

	N	Minimum	Maximum	Mean	Std. Deviation
Physical Health Domain 1	128	18	35	28.23	3.30
Psychological Domain 2	128	16	30	24.07	3.12
Social Relationships Domain 3	128	5	15	11.04	1.87
Environment Domain 4	128	20	40	29.66	4.35

Descriptive statistics summaries for the scores of different coping skills are presented in Table 4. Based on the mean scores, it should be noted that the samples of caregivers have high degrees of use of the coping skills of fatalistic ($M = 9.9$; $SD = 4.92$),

emotive ($M = 11.86$; $SD = 4.80$), and supportant ($M = 12.34$; $SD = 4.09$) since the mean scores are at the high end of the range of possible scores. On the other hand, samples of caregivers have only average degree of use of the coping skills of confrontative ($M = 18.62$; $SD = 5.40$), evasive ($M = 19.62$; $SD = 5.91$), optimistic ($M = 17.47$; $SD = 4.49$), palliative ($M = 12.63$; $SD = 3.46$), and self-reliant ($M = 14.77$; $SD = 4.21$).

Table 4

Descriptive Statistics Summaries of Scores for Coping Skills

	N	Minimum	Maximum	Mean	Std. Deviation
Confrontive Coping Skills	128	1	30	18.62	5.40
Evasive Coping Skills	125	8	36	19.62	5.91
Optimistic Coping Skills	125	4	26	17.47	4.49
Fatalistic Coping Skills	125	3	23	9.90	4.92
Emotive Coping Skills	125	2	22	11.86	4.80
Palliative Coping Skills	125	6	23	12.63	3.46
Supportant Coping Skills	125	5	24	12.34	4.09
Self-Reliant Coping Skills	125	6	46	14.77	4.21

Test of Required Assumptions of Parametric Statistical Analysis

This current study involves the use of the parametric statistical analyses of multiple linear regression analysis to address the research question of the study. The different required assumptions of these statistical analyses include linearity, homoscedasticity, and normality of data of the dependent variable. Each of these assumptions was tested and the results were presented below.

Linearity. The first assumption tested was linearity, or that the relationship between the independent variables and the dependent variables are linear. The

assumption of linearity is best tested with scatterplots of the standard regression output of standardized predicted values against residuals. These scatterplots are shown in Figure 1. In the different scatterplots, it can be observed that the data points are symmetrically distributed around a diagonal line in the horizontal line in the residuals versus predicted values plot. This means that the assumption of linearity is observed in each of the standard regression output of the dependent variables of four quality of life domains of physical health, psychological, social relationships, and environment. Thus, the assumption of linearity is satisfied based on the investigation of the scatterplots.

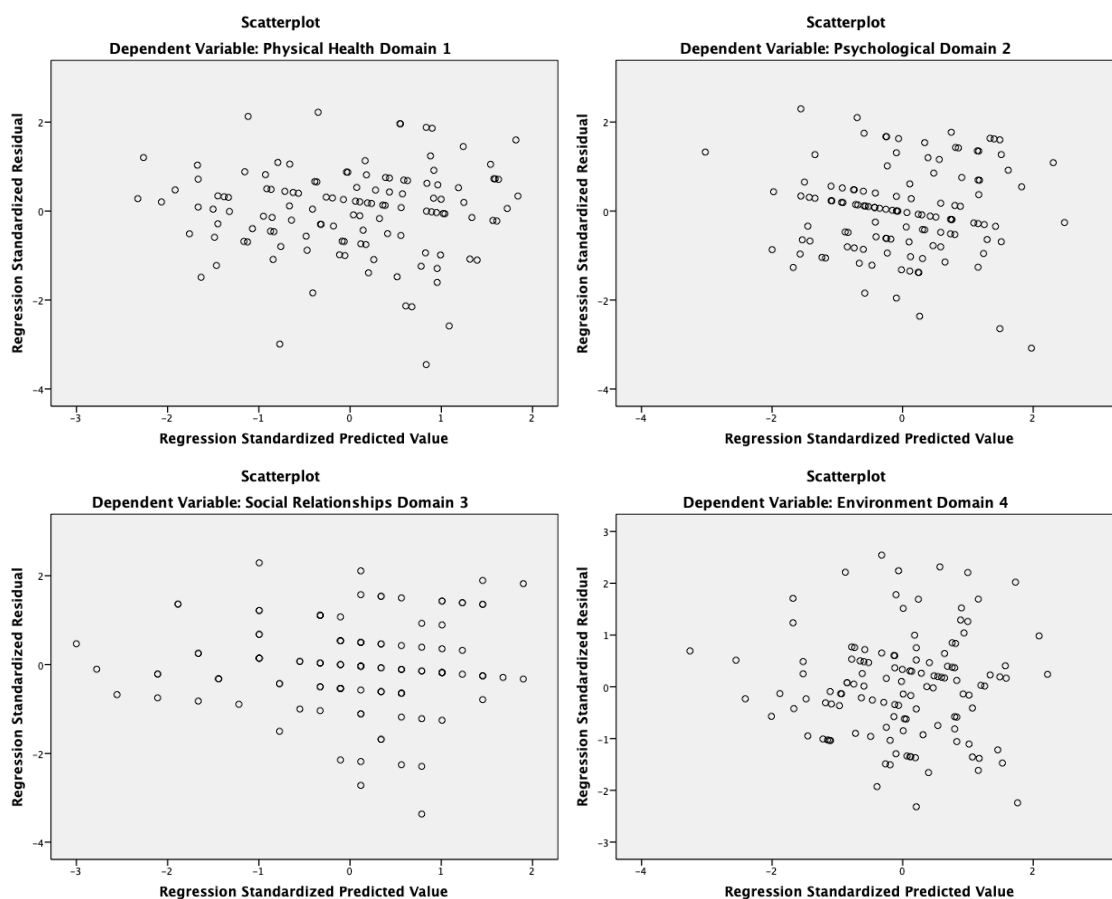


Figure 1. Scatterplot of standardized predicted values against the standardized residuals

in predicting four quality of life domains.

Homoscedasticity. The second assumption tested was that the data needs to show homoscedasticity, which means that there should equal variance of all values of the independent variables around the regression line. Tests of homoscedasticity are based on a visual inspection of the same scatterplots of the error terms (residuals) and the predicted values of the dependent variables in Figure 1. The scatterplot of standardized predicted values against residuals should be a random pattern centered around the line of zero standard residual value to show homoscedasticity. Each of the four scatterplots for each of the four quality of life domains showed random scatter. There was no observation of a megaphone structure of residuals in each of the four scatterplots. Thus, the assumption of homoscedasticity is satisfied.

Normality. The third assumption tested was normality of the data or the error distribution of data. Normal probability plot of the residuals are used to test the assumption of normality of data. These are shown in Figure 2. Looking at the four normal probability plots, each of the plots closely fall in the diagonal line indicating that each of the four regression models for each of the four quality of life domains showed normality of the data. Thus, the assumption of normality is satisfied based on the investigation of the normal probability plots.

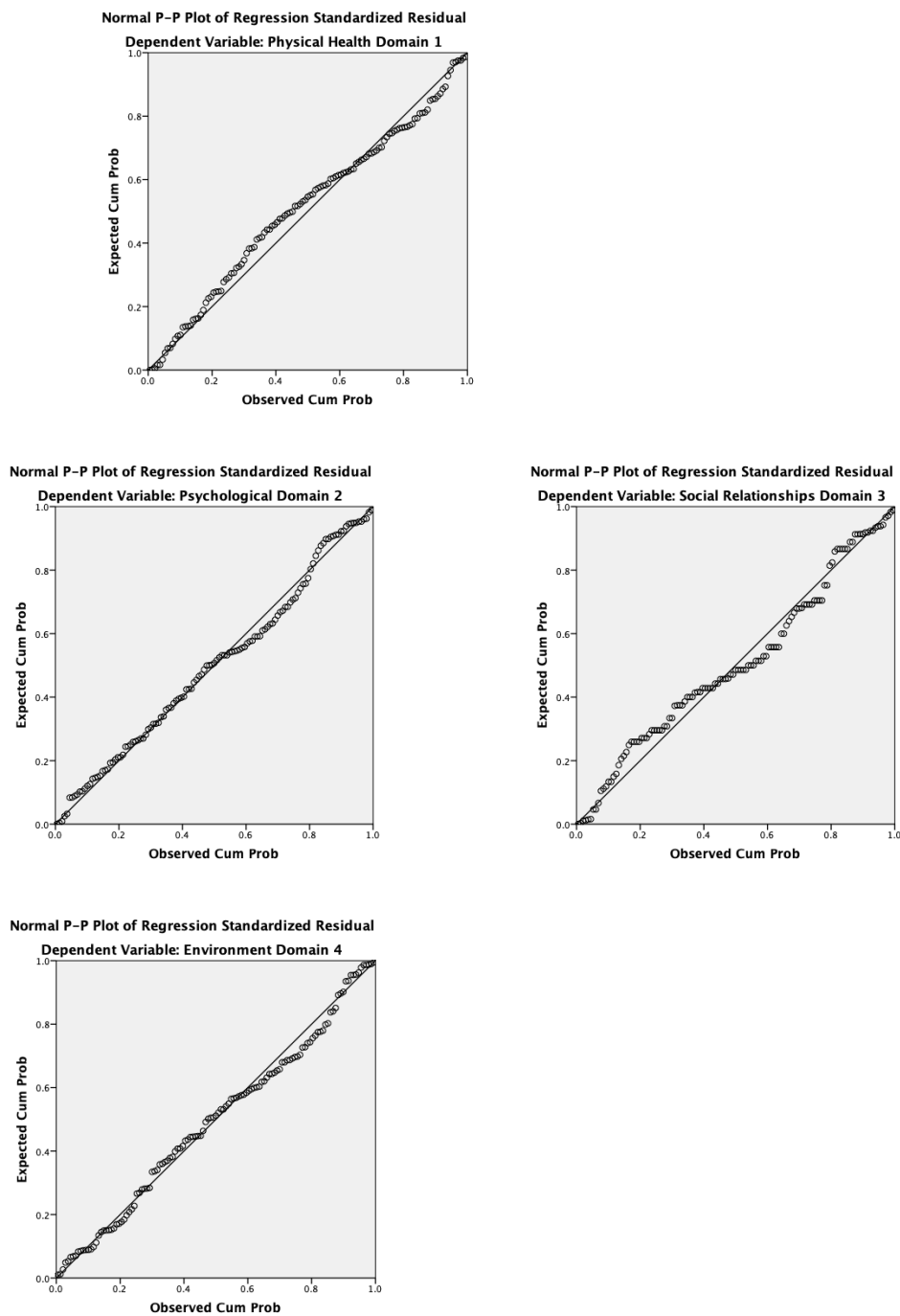


Figure 2. Normal probability plot of residuals in predicting four quality of life domains.

Research Question/Hypothesis Testing

Next, multiple linear regression was conducted to address the research question of the study which states: How do the coping skills manifested by caregivers during the transition from wellness to illness of patients with ESRD relate to the quality of life domains? Specifically, the results of the multiple linear regression determined which coping skills utilized by caregivers during the transition from wellness to illness of patients with ESRD significantly predict their quality of life in terms of physical health, psychological, social relationships, and environment. Four multiple regression models are created to determine which of the eight coping skills are significantly related to each of the four quality of life domains. Backwards elimination multiple regression is specifically used to determine which coping skills reliably predicts variation in quality of life. A level of significance of 0.05 is used in all the multiple linear regression analyses.

Hypothesis 1: Physical Health Domain reference table 5

H₁₀: The coping skills, as measured by the Jalowiec Coping Scale, shown by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the physical health domain, as measured through the WHOQOL-BREF Scale.

H_{1a}: The coping skills, as measured by the Jalowiec Coping Scale, shown by caregivers during the transition from wellness to illness of patients with ESRD significantly predict scores on the physical health domain, as measured through the WHOQOL-BREF Scale.

The first regression model created is used to determine the significance of the relationship between the coping skills and quality of life domain of physical health among caregivers. The results of these multiple linear regression are presented in Table 5. The final regression model created in predicting physical health domain was created after six backwards elimination multiple regression models. The final regression model is statistically significant ($F(3, 121) = 3.41, p = 0.02$). This indicated that the regression model with the eight coping skills in predicting physical health domain has an acceptable model fit. This means that the combined influence of the eight different coping skills on the physical health domain is significant. The R^2 value of the regression model is 0.08, which indicated a very low effect size, meaning that the combined influence of the eight different coping skills explains only 8% in predicting physical health domain.

Investigation of the individual predictive relationship showed that only two out of the eight different coping skills of optimistic ($t(124) = 2.65, p = 0.01$) and emotive ($t(124) = 1.99, p = 0.05$) significantly influenced and have significant predictive relationships with the physical health domain. This means that using the optimistic and emotive coping skills during the transition from wellness to illness of patients with ESRD significantly relate to physical health. Moreover, examination of the unstandardized beta coefficient (β) showed that both coping skills of optimistic ($\beta = 0.26$) and emotive ($\beta = 0.12$) have significant positive predictive relationships with physical health domain. This means that the physical health of the patients with ESRD of the caregivers during the transition from wellness to illness will be better if they manifest a higher degree or more frequent coping skills of optimistic and emotive. When the optimistic and emotive coping

skill scores increase by one standard deviation, the score for physical health domain increases by 0.26 and 0.12 standard deviations, respectively. The equation for the regression model is as follows: Physical health domain = 25.05 + 0.26 Optimistic + 0.12 Emotive + e. With this result, H_0 is rejected.

In terms of post-estimation diagnosis for multicollinearity, collinearity statistic of Variance Inflation Factor (VIF) is calculated to check for the presence of multicollinearity of the different predictors of eight coping skills in predicting physical health domain. The VIF values of the two significant coping skills (1.03, 2.44) are below five which indicate that none of the significant predictors of coping skills are highly correlated or multicollinear in predicting the dependent variable of physical health domain. Thus, there is no presence of multicollinearity.

Table 5

Multiple Linear Regression Results of Relationships of Coping Skills and Physical Health Domain

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity statistics	
	B	Std. error	Beta			Tolerance	VIF
1 (Constant)	23.71	1.76		13.45	0.00		
Confrontive	-0.21	0.09	-0.34	-2.23	0.03	0.33	3.08
Evasive	0.08	0.07	0.14	1.11	0.27	0.48	2.07
Optimistic	0.22	0.11	0.29	1.99	0.05	0.35	2.83
Fatalistic	-0.12	0.13	-0.19	-0.93	0.36	0.19	5.16
Emotive	0.15	0.11	0.21	1.31	0.19	0.29	3.41
Palliative	0.07	0.14	0.08	0.51	0.61	0.34	2.97
Supportant	0.06	0.14	0.07	0.40	0.69	0.26	3.86
Self-Reliant	0.07	0.08	0.09	0.89	0.38	0.76	1.32
2 (Constant)	23.92	1.68		14.24	0.00		
Confrontive	-0.22	0.09	-0.35	-2.31	0.02	0.33	3.03
Evasive	0.08	0.07	0.14	1.09	0.28	0.49	2.06

	Optimistic	0.23	0.11	0.31	2.15	0.03	0.37	2.68
	Fatalistic	-0.10	0.12	-0.15	-0.84	0.40	0.24	4.16
	Emotive	0.16	0.10	0.24	1.66	0.10	0.36	2.77
	Palliative	0.07	0.14	0.08	0.51	0.61	0.34	2.97
	Self-Reliant	0.07	0.08	0.09	0.87	0.39	0.76	1.31
3	(Constant)	24.06	1.65		14.55	0.00		
	Confrontive	-0.20	0.09	-0.33	-2.27	0.03	0.37	2.70
	Evasive	0.08	0.07	0.14	1.11	0.27	0.49	2.05
	Optimistic	0.22	0.10	0.30	2.13	0.04	0.37	2.67
	Fatalistic	-0.07	0.10	-0.10	-0.68	0.50	0.32	3.09
	Emotive	0.18	0.10	0.26	1.80	0.07	0.38	2.65
	Self-Reliant	0.07	0.08	0.10	0.97	0.34	0.79	1.27
4	(Constant)	23.97	1.64		14.58	0.00		
	Confrontive	-0.20	0.09	-0.32	-2.27	0.03	0.37	2.70
	Evasive	0.09	0.07	0.16	1.32	0.19	0.52	1.94
	Optimistic	0.22	0.10	0.30	2.13	0.04	0.37	2.67
	Emotive	0.13	0.06	0.18	1.96	0.05	0.86	1.16
	Self-Reliant	0.06	0.07	0.07	0.80	0.43	0.87	1.15
5	(Constant)	24.38	1.56		15.66	0.00		
	Confrontive	-0.19	0.09	-0.31	-2.19	0.03	0.38	2.65
	Evasive	0.10	0.07	0.17	1.43	0.16	0.53	1.91
	Optimistic	0.22	0.10	0.30	2.13	0.04	0.37	2.67
	Emotive	0.14	0.06	0.20	2.25	0.03	0.93	1.08
6	(Constant)	25.05	1.49		16.79	0.00*		
	Confrontive	-0.15	0.08	-0.25	-1.85	0.07	0.41	2.43
	Optimistic	0.26	0.10	0.36	2.65	0.01*	0.41	2.44
	Emotive	0.12	0.06	0.18	1.99	0.05*	0.97	1.03

Note. Model 6: $F(3, 121) = 3.41, p = 0.02$; R Square (R^2) = 0.08; N = 125

Dependent Variable: Physical Health Domain 1

Predictors: (Constant), Emotive Coping Skill, Optimistic Coping Skill, Confrontative Coping Skill

*Significant at level of 0.05

Hypothesis 2: Psychological Domain reference table 6

$H2_0$: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD do not

significantly relate to the psychological domain, as measured through the WHOQOL-BREF Scale.

H2_a: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly relate to the psychological domain, as measured through the WHOQOL-BREF Scale.

The second regression model created is used to determine the significance of the relationship between the coping skills and quality of life domain of psychological among caregivers. The results of these multiple linear regression are presented in Table 6. The final regression model created in predicting psychological domain was created after seven backwards elimination multiple regression models. The final regression model is statistically significant ($F(2, 122) = 3.24, p = 0.04$). This indicated that the regression model with the eight coping skills in predicting psychological domain has an acceptable model fit. This means that the combined influence of the eight different coping skills on the psychological domain is also significant. The R^2 value of the regression model is 0.05, which indicated a very low effect size, meaning that the combined influence of the eight different coping skills explains only 5% in predicting psychological domain.

Investigation of the individual predictive relationship showed that only one out of the eight different coping skills of emotive ($t(124) = 2.07, p = 0.04$) significantly influenced and has significant predictive relationship with psychological domain. This means that manifesting the coping skill of emotive by caregivers during the transition

from wellness to illness of patients with ESRD significantly relates to the psychological health. Moreover, examination of the unstandardized beta coefficient (β) showed that coping skill of emotive ($\beta = 0.12$) has significant positive predictive relationship with psychological domain. This means that the psychological health of the patients with ESRD of the caregivers during the transition from wellness to illness will be better if they manifest a higher degree or more frequent coping skill of emotive. When the emotive coping skill score increase by one standard deviation, the score for psychological domain increases by 0.12 standard deviations. The equation for the regression model is as follows: psychological domain = 20.65 + 0.12 Emotive + e. With this result, the null hypothesis two is rejected.

Table 6

Multiple Linear Regression Results of Relationships of Coping Skills and Psychological

Domain

Model	Unstandardized coefficients		Standardized coefficients Beta	t	Sig.	Collinearity statistics	
	B	Std. error				Tolerance	VIF
1 (Constant)	20.50	1.67		12.26	0.00		
Confrontive	-0.16	0.09	-0.28	-1.81	0.07	0.33	3.08
Evasive	0.03	0.07	0.05	0.43	0.67	0.48	2.07
Optimistic	0.20	0.10	0.29	1.97	0.05	0.35	2.83
Fatalistic	-0.10	0.13	-0.15	-0.76	0.45	0.19	5.16
Emotive	0.25	0.11	0.39	2.41	0.02	0.29	3.41
Palliative	0.06	0.14	0.07	0.44	0.66	0.34	2.97
Supportant	-0.16	0.13	-0.20	-1.19	0.24	0.26	3.86
Self-Reliant	0.11	0.07	0.15	1.45	0.15	0.76	1.32
2 (Constant)	20.68	1.61		12.84	0.00		
Confrontive	-0.15	0.09	-0.26	-1.77	0.08	0.34	2.93
Optimistic	0.21	0.10	0.31	2.20	0.03	0.39	2.59

	Fatalistic	-0.11	0.12	-0.17	-0.85	0.40	0.20	5.01
	Emotive	0.26	0.10	0.39	2.44	0.02	0.29	3.40
	Palliative	0.06	0.14	0.07	0.46	0.65	0.34	2.96
	Supportant	-0.16	0.13	-0.21	-1.22	0.22	0.26	3.84
	Self-Reliant	0.11	0.07	0.15	1.56	0.12	0.78	1.28
3	(Constant)	20.81	1.58		13.15	0.00		
	Confrontive	-0.14	0.08	-0.24	-1.72	0.09	0.39	2.59
	Optimistic	0.21	0.10	0.31	2.18	0.03	0.39	2.59
	Fatalistic	-0.08	0.11	-0.13	-0.72	0.47	0.25	3.95
	Emotive	0.26	0.10	0.41	2.58	0.01	0.31	3.28
	Supportant	-0.16	0.13	-0.21	-1.23	0.22	0.26	3.84
	Self-Reliant	0.12	0.07	0.16	1.67	0.10	0.81	1.24
4	(Constant)	20.96	1.57		13.39	0.00		
	Confrontive	-0.14	0.08	-0.24	-1.73	0.09	0.39	2.58
	Optimistic	0.22	0.10	0.32	2.35	0.02	0.40	2.51
	Emotive	0.24	0.10	0.37	2.49	0.01	0.35	2.84
	Supportant	-0.21	0.11	-0.27	-1.87	0.06	0.35	2.83
	Self-Reliant	0.11	0.07	0.14	1.53	0.13	0.88	1.14
5	(Constant)	21.73	1.49		14.59	0.00		
	Confrontive	-0.12	0.08	-0.20	-1.47	0.14	0.40	2.50
	Optimistic	0.23	0.10	0.33	2.36	0.02	0.40	2.51
	Emotive	0.25	0.10	0.38	2.62	0.01	0.36	2.82
	Supportant	-0.19	0.11	-0.25	-1.74	0.09	0.36	2.81
6	(Constant)	21.27	1.46		14.53	0.00		
	Optimistic	0.12	0.06	0.17	1.91	0.06	0.97	1.04
	Emotive	0.23	0.10	0.36	2.47	0.02	0.36	2.79
	Supportant	-0.17	0.11	-0.22	-1.51	0.13	0.37	2.73
7	(Constant)	20.65	1.41		14.62	0.00*		
	Optimistic	0.11	0.06	0.16	1.82	0.07	0.97	1.03
	Emotive	0.12	0.06	0.19	2.07	0.04*	0.97	1.03

Note. Model 7: $F(2, 122) = 3.24, p = 0.04$; R Square (R^2) = 0.05; N = 125

Dependent Variable: Psychological Domain 2

Predictors: (Constant), Emotive Coping Skill, Optimistic Coping Skill

*Significant at level of significance of 0.05

Hypothesis 3: Social Relationships Domain reference table 7

H3₀: The coping skills, as measured by the Jalowiec Coping Scale, shown by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the social relationships domain, as measured through the WHOQOL-BREF Scale.

H3_a: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly relate to the social relationships domain, as measured through the WHOQOL-BREF Scale.

The third regression model created is used to determine the significance of the relationship between the coping skills and quality of life domain of social relationships among caregivers. The results of these multiple linear regression are presented in Table 7. The final regression model created in predicting social relationships domain was created after eight backwards elimination multiple regression models. The final regression model is not statistically significant ($F(1, 123) = 3.26, p = 0.07$). This indicated that the regression model with the eight coping skills in predicting social relationships domain did not have an acceptable model fit. This means that the combined influence of the eight different coping skills on the social relationships domain is also insignificant. The R^2 value of the regression model is 0.03, which indicated a very low effect size, meaning that the combined influence of the eight different coping skills explained only 3% in predicting social relationships domain.

Investigation of the individual predictive relationship showed that none of the eight different coping skills significantly influenced and has significant predictive relationships with social relationships domain. This means that manifesting any of the eight different coping skill by caregivers during the transition from wellness to illness of patients with ESRD did not significantly relate to the social relationships. With this result, the null hypothesis three is not rejected.

Table 7

Multiple Linear Regression Results of Relationships of Coping Skills and Social Relationships Domain

Model	Unstandardized coefficients		Standardized coefficients Beta	t	Sig.	Collinearity statistics	
	B	Std. error				Toleranc e	VIF
1 (Constant)	9.24	1.02		9.05	0.00		
Confrontive	-0.08	0.06	-0.23	-1.50	0.14	0.33	3.08
Evasive	-0.04	0.04	-0.13	-0.99	0.33	0.48	2.07
Optimistic	0.16	0.06	0.38	2.53	0.01	0.35	2.83
Fatalistic	-0.08	0.08	-0.20	-1.01	0.32	0.19	5.16
Emotive	0.09	0.06	0.23	1.39	0.17	0.29	3.41
Palliative	0.10	0.08	0.18	1.17	0.25	0.34	2.97
Supportant	-0.05	0.08	-0.11	-0.65	0.52	0.26	3.86
Self-Reliant	0.03	0.05	0.07	0.69	0.49	0.76	1.32
2 (Constant)	9.05	0.97		9.29	0.00		
Confrontive	-0.08	0.05	-0.22	-1.43	0.15	0.33	3.03
Evasive	-0.04	0.04	-0.12	-0.95	0.35	0.49	2.06
Optimistic	0.15	0.06	0.36	2.45	0.02	0.37	2.68
Fatalistic	-0.10	0.07	-0.26	-1.44	0.15	0.24	4.16
Emotive	0.07	0.06	0.18	1.23	0.22	0.36	2.77
Palliative	0.10	0.08	0.18	1.17	0.25	0.34	2.97
Self-Reliant	0.03	0.05	0.07	0.73	0.47	0.76	1.31
3 (Constant)	9.22	0.94		9.77	0.00		
Confrontive	-0.08	0.05	-0.21	-1.39	0.17	0.33	3.02
Evasive	-0.03	0.04	-0.10	-0.83	0.41	0.50	1.99
Optimistic	0.15	0.06	0.36	2.46	0.02	0.37	2.68

	Fatalistic	-0.09	0.07	-0.24	-1.33	0.19	0.25	4.02
	Emotive	0.07	0.06	0.17	1.16	0.25	0.37	2.74
	Palliative	0.11	0.08	0.20	1.31	0.19	0.35	2.89
4	(Constant)	8.98	0.90		10.00	0.00		
	Confrontive	-0.09	0.05	-0.25	-1.65	0.10	0.35	2.84
	Optimistic	0.13	0.06	0.32	2.32	0.02	0.41	2.46
	Fatalistic	-0.08	0.07	-0.21	-1.19	0.24	0.26	3.86
	Emotive	0.07	0.06	0.17	1.16	0.25	0.37	2.74
	Palliative	0.10	0.08	0.19	1.26	0.21	0.35	2.87
5	(Constant)	9.22	0.88		10.52	0.00		
	Confrontive	-0.09	0.05	-0.26	-1.75	0.08	0.36	2.82
	Optimistic	0.13	0.06	0.32	2.32	0.02	0.41	2.46
	Fatalistic	-0.04	0.06	-0.10	-0.68	0.50	0.36	2.78
	Palliative	0.12	0.08	0.22	1.51	0.13	0.36	2.77
6	(Constant)	9.15	0.87		10.54	0.00		
	Confrontive	-0.08	0.05	-0.23	-1.62	0.11	0.40	2.53
	Optimistic	0.14	0.06	0.32	2.34	0.02	0.41	2.45
	Palliative	0.08	0.05	0.14	1.59	0.12	0.96	1.05
7	(Constant)	10.02	0.68		14.72	0.00		
	Confrontive	-0.06	0.05	-0.18	-1.32	0.19	0.41	2.43
	Optimistic	0.13	0.06	0.30	2.18	0.03	0.41	2.43
8	(Constant)	9.86	0.67		14.68	0.00*		
	Optimistic	0.07	0.04	0.16	1.81	0.07	1.00	1.00

Note. Model 8: $F(1, 123) = 3.26, p = 0.07$; R Square (R^2) = 0.03; N = 125

Dependent Variable: Social Relationships Domain 3

Predictors: (Constant), Optimistic Coping Skill

*Significant at level of significance of 0.05

Hypothesis 4: Environment Domain reference table 8

H_{40} : The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the environment domain, as measured by the WHOQOL-BREF Scale.

H4_a: The coping skills, as measured through the Jalowiec Coping Scale, manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly relate to the environment domain, as measured by the WHOQOL-BREF Scale.

The fourth and final regression model created is used to determine the significance of the relationship between the coping skills and quality of life domain of environment among caregivers. The results of these multiple linear regression are presented in Table 8. The final regression model created in predicting environment domain was created after seven backwards elimination multiple regression models. The final regression model is statistically significant ($F(2, 122) = 4.03, p = 0.02$). This indicated that the regression model with the eight coping skills in predicting environment domain has an acceptable model fit. This means that the combined influence of the eight different coping skills on the environment domain is also significant. The R^2 value of the regression model is 0.06, which indicated a very low effect size, meaning that the combined influence of the eight different coping skills explains only 6% in predicting environment domain.

Investigation of the individual predictive relationship showed that only one out of the eight different coping skills of optimistic ($t(124) = 2.52, p = 0.01$) significantly influenced and has significant predictive relationship with environment domain. This means that manifesting the coping skill of optimistic by caregivers during the transition from wellness to illness of patients with ESRD significantly relates to the environment domain. Moreover, examination of the unstandardized beta coefficient (β) showed that coping skill of optimistic ($\beta = 0.22$) has significant positive predictive relationship with

environment domain. This means that the quality of life in terms of environment of the patients with ESRD of the caregivers during the transition from wellness to illness will be better if they manifest a higher degree or more frequent coping skill of optimistic. When the optimistic coping skill score increase by one standard deviation, the score for environment domain increases by 0.22 standard deviations. The equation for the regression model is as follows: Environment domain = 24.15 + 0.22 Optimistic + e. With this result, the null hypothesis four is rejected.

Table 8

Multiple Linear Regression Results of Relationships of Coping Skills and Environment Domain

Model		Unstandardized coefficients		Standardized Coefficients Beta	t	Sig.	Collinearity statistics	
		B	Std. error				Tolerance	VIF
1	(Constant)	23.70	2.32		10.21	0.00		
	Confrontive	-0.09	0.12	-0.12	-0.75	0.46	0.33	3.08
	Evasive	-0.08	0.09	-0.11	-0.87	0.39	0.48	2.07
	Optimistic	0.28	0.14	0.29	1.97	0.05	0.35	2.83
	Fatalistic	-0.22	0.18	-0.25	-1.26	0.21	0.19	5.16
	Emotive	0.25	0.15	0.27	1.70	0.09	0.29	3.41
	Palliative	0.25	0.19	0.20	1.32	0.19	0.34	2.97
	Supportant	-0.15	0.18	-0.14	-0.84	0.40	0.26	3.86
	Self-Reliant	0.15	0.10	0.15	1.49	0.14	0.76	1.32
2	(Constant)	23.69	2.32		10.22	0.00		
	Evasive	-0.10	0.09	-0.13	-1.06	0.29	0.51	1.97
	Optimistic	0.22	0.11	0.22	1.90	0.06	0.55	1.81
	Fatalistic	-0.21	0.17	-0.24	-1.19	0.24	0.20	5.10
	Emotive	0.25	0.15	0.28	1.71	0.09	0.29	3.41
	Palliative	0.20	0.18	0.16	1.14	0.26	0.38	2.65
	Supportant	-0.14	0.18	-0.13	-0.75	0.46	0.26	3.79
	Self-Reliant	0.15	0.10	0.15	1.45	0.15	0.76	1.31
3	(Constant)	23.18	2.21		10.48	0.00		
	Evasive	-0.09	0.09	-0.12	-1.00	0.32	0.51	1.95

	Optimistic	0.20	0.11	0.21	1.79	0.08	0.58	1.74
	Fatalistic	-0.27	0.15	-0.30	-1.73	0.09	0.25	4.03
	Emotive	0.20	0.13	0.22	1.54	0.13	0.36	2.75
	Palliative	0.21	0.18	0.17	1.18	0.24	0.38	2.64
	Self-Reliant	0.16	0.10	0.15	1.51	0.13	0.77	1.31
4	(Constant)	22.64	2.14		10.56	0.00		
	Optimistic	0.14	0.09	0.15	1.49	0.14	0.81	1.24
	Fatalistic	-0.22	0.15	-0.25	-1.51	0.13	0.27	3.72
	Emotive	0.20	0.13	0.22	1.53	0.13	0.36	2.75
	Palliative	0.19	0.18	0.15	1.06	0.29	0.38	2.60
	Self-Reliant	0.14	0.10	0.13	1.34	0.18	0.80	1.25
5	(Constant)	23.08	2.10		10.98	0.00		
	Optimistic	0.17	0.09	0.18	1.88	0.06	0.88	1.13
	Fatalistic	-0.15	0.13	-0.17	-1.14	0.26	0.35	2.90
	Emotive	0.23	0.13	0.25	1.77	0.08	0.38	2.65
	Self-Reliant	0.16	0.10	0.15	1.62	0.11	0.84	1.19
6	(Constant)	23.05	2.11		10.95	0.00		
	Optimistic	0.19	0.09	0.20	2.13	0.04	0.92	1.09
	Emotive	0.11	0.08	0.13	1.39	0.17	0.92	1.09
	Self-Reliant	0.13	0.09	0.12	1.36	0.18	0.91	1.10
7	(Constant)	24.15	1.95		12.37	0.00*		
	Optimistic	0.22	0.09	0.22	2.52	0.01*	0.97	1.03
	Emotive	0.14	0.08	0.16	1.74	0.09	0.97	1.03

Note. Model 7: $F(2, 122) = 4.03, p = 0.02$; R Square (R^2) = 0.06; N = 125

Dependent Variable: Environment Domain 4

Predictors: (Constant), Emotive Coping Skill, Optimistic Coping Skill

*Significant at level of significance of 0.05

Summary

The purpose of this quantitative correlational study was to identify how caregivers cope during the transition period between wellness to illness. Results of the multiple linear regression analysis showed that the coping skills of optimistic and emotive manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly positively predict scores on the physical health domain. Results of

the multiple linear regression analysis showed that the coping skill of emotive manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly positively predict scores on the psychological domain. Results of the multiple linear regression analysis showed that the coping skill of optimistic manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly positively predict scores on the environment domain.

Implications of the results of the data analysis will be discussed in detail in Chapter 5. Suggestions on how the findings may be applied in an organizational setting and a summary of recommendations for future research are also discussed in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

Research on caregiver burden and satisfaction has focused on patients and caregivers who have been dealing with long-term kidney disease (Wilson-Genderson et al., 2009). There is a need for further research that address the burden and satisfaction for caregivers and patients who are transitioning from wellness to illness. It is critical to identify the coping mechanisms of effective caregivers. The purpose of this quantitative study was to identify how caregivers cope during the transition period between wellness and illness.

A total of 128 caregivers of dialysis patients was selected. Patients were receiving dialysis at kidney dialysis centers across California at home. The regression models used were able to determine the significance of the relationship between coping skills and all quality of life domains among caregivers, except the domain of social relationship. The coping skills manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly predict positive scores in the physical health, psychological, and environment domains.

Chapter 5 is organized as follows: a summary of the research problem, purpose, methodology, and results; the interpretation of the findings, limitations and recommendations for further research; the implications of the results and a conclusion.

Interpretation of the Findings

In this section, the findings of the study will be discussed, including a comparison with the findings of previous researchers. The results are also interpreted in the context of the theoretical framework.

The research question was as follows: How do the coping skills manifested by caregivers during the transition from wellness to illness of patients with ESRD relate to the quality of life domains? The first null hypothesis was as follows: H_{10} : The coping skills, as measured by the Jalowiec Coping Scale, shown by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the physical health domain, as measured by the WHOQOL-BREF Scale. The first null hypotheses was rejected. The result showed that the coping skills of optimistic and emotive, shown by caregivers during the transition from wellness to illness of patients with ESRD, significantly positively predict scores in the physical health domain. This means that using the coping skills of optimistic and emotive by caregivers during the transition from wellness to illness of patients with ESRD significantly relate to the physical health of the caregivers, which confirms the findings of Dubenske et al. (2013) and Northouse et al. (2012) who found that over time the mental and physical health of caregivers may deteriorate. Emotive coping skills was found to have an impact to the physical health, which might mean that as they take care of the patient because they love them, eventually they may also experience burnout or compassion fatigue.

The coping skills of evasive, fatalistic, palliative, supportant, and self-reliant were not found to be significantly related to the physical health domain. These coping skills

were not used by the caregivers in the transition from wellness to illness. It might mean that these coping skills were not perceived as useful in order to help the caregivers address the effect of being a caregiver to their physical health.

Lazarus and Folkman's (1984) theory of cognitive appraisal was used in this study. According to Lazarus and Folkman, one type of coping skills is focused on emotions. The result of the first hypothesis is aligned with the premises of the theory that caregivers regulate their emotions to be able to handle the stress they are experiencing (Lazarus, 1991; Padden, Connors, & Agazio, 2011). Their use of emotions as a coping skill is related to their physical health.

The second null hypothesis was as follows: The coping skills, as measured by the Jalowiec Coping Scale, shown by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the psychological domain, as measured through the WHOQoL-BREF Scale. The second null hypothesis was rejected. The results showed that only the coping skill of emotive shown by caregivers during the transition from wellness to illness of patients with ESRD significantly positively predict scores in the psychological domain. This means that the emotive coping skill used by caregivers during the transition from wellness to illness of patients with ESRD significantly relate to the psychological domain of the quality of life of the caregivers, which confirms previous findings about the relationship between coping skills and psychological aspect of the lives of the caregivers (Friedemann & Buckwalter, 2014; McQuellon & Cowan, 2010; Vilchinsky, Dekel, Revenson, Liberman, & Mosseri, 2015; Weiss, Shor, & Hadas-Lidor, 2013).

Emotive coping skills are instances when individuals use their emotions in order to cope with their situation. For instance, caregivers continue to provide care because they love their relatives. McQuellon and Cowan (2010) suggested that caregivers are confronted with morbidity when their loved one is given a life-threatening diagnosis because they realize that there is a possibility that they could lose their loved one due to the chronic illness.

Using their emotions to cope can have negative effects to their psychological health. Vilchinsky et al. (2015) noted that during a time of crisis, especially a medical emergency one, caregivers can experience intense distress emotions and identify the situation as an overwhelming scenario. If the caregiver believes that he or she is incapable of helping a loved one during a medical crisis, it could have an impact to how they cope with the situation. Morse et al. (2012) noted that it could cause the caregiver to feel unworthy of providing care to their patients. The caregiver could feel hopeless with their situation. In addition, there are disadvantages of using their emotions in order to cope with the situation. Friedemann and Buckwalter (2014) found that most caregivers were not clinically depressed because they strongly believed that it is their obligation to take care of their ill loved one. Because they use their emotions, caregivers live a life of uncertainty that brings constant stress and fear in their daily lives because they do not certainly know whether they would lose their loved one or not.

Using emotions that are linked to the psychological health of the caregivers is twice the burden for spousal caregivers. Spousal caregivers experience higher levels of burden and depression compared to any other family members (Friedemann &

Buckwalter, 2014). The spousal caregiver role is different from any other family role because their marriage is the most important relationship in their lives (Savundranayagam, 2014). In general, caregivers experience an emotional burden, which brings anxiety about the potential loss of their loved one. However, in the case of spouses, it can also be the loss of their relationship with their husband or wife (Fife, Weaver, Cook, & Stump, 2013; Friedemann & Buckwalter, 2014). As such, the psychological health of the individual is affected.

Finally, even if the caregivers need help, they would feel the need to always prioritize the needs of the patient over their needs. However, when their needs are not being fulfilled, they will become distressed (Vilchinsky et al., 2015). This has a negative impact to the psychological health of the caregivers. Most of the time, caregivers would not seek help even if they needed it. The cultural and religious beliefs of the individual might influence their decision to seek or not to seek mental health services (Weiss, Shor, & Hadas-Lidor, 2013). Similarly, culture and religion can hinder the adherence of caregivers seeking mental health services when caring for an ill family member; therefore, the transition from wellness to illness may become a difficult process as well as the path ahead (Weisman de Mamani & Suro, 2015). It will make the transition from wellness to illness more difficult because not being able to seek mental health services can add to the caregiver burden that was found to be related to the psychological domain of the quality of life of the caregivers. When caregivers use emotion to cope with their situation, in the long run, this situation may be affecting their psychological health.

Since caregivers in the study used emotions and how it affects their mental health, this situation may have an impact to how they view their relationships with the patient. According to Lazarus and Folkman (1987) the extent that any relationship may be distressing, or a benefit, depends on cultural and social environmental conditions, as well as psychological features that the person brings into the relationship. Lazarus and Folkman (1987) stated primary and secondary appraisals are arbitrators of the caregiver's emotional responses, toward the situation causing the stressful emotional response. In this case, most of the caregivers would dismissed their needs as not being an issue because they prioritize the needs of their patient. For the secondary appraisal, the caregiver may believe that he or she has no control over a particular outcome, as well as conducting analysis to identify any available coping options for the stressor (Lazarus & Folkman, 1987; Meurs & Perrewe, 2011). Since we are dealing with a chronic illness and the possibility of death, caregivers might be stressed because their needs are not being fulfilled and the uncertainty of the situation they are in.

The third null hypothesis was as follows: The coping skills, as measured through the Jalowiec Coping Scale, shown by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the social relationships domain, as measured through the WHOQoL-BREF Scale. The third null hypothesis was not rejected. The coping skills manifested by caregivers during the transition from wellness to illness of patients with ESRD do not significantly positively predict scores on the social relationships domain. This means that the caregivers in the study did not use any coping skills that affected their social relationships. This finding is

contradictory to the results of previous researchers about how family caregivers use coping skills because when they provide care for a family member, their social relationships are affected.

The context of the situation of the caregiver reveal how their social relationships are affected. The caregiver usually accompanies chronically ill patients to doctor appointments on a daily basis and play a critical role in the patient's life. Since the caregiver attends to the needs of the patient such as monitoring the patient's symptoms and side effects, it could mean that the caregiver will not have time for work or social gatherings anymore (DuBenske et al., 2014; Rosland et al., 2013). Since they will have not time for social activities, they will have to use coping skills in order to cope with the lack of social activities. There will be a decline in social activities on both the patient and the caregiver (Dubenske et al., 2013; Northouse et al., 2012). The two individuals would have to employ coping skills with the new situation in their lives.

It was expected that at least one of the coping skills manifested by the caregiver is significantly related to the social relationships domain of the quality of life of the caregivers ((Dubenske et al., 2013). It might mean that the coping skills used in the study are limited as they are not related to the social relationships domain. There might be other coping skills that they use. Another explanation would be that there is not really a need for a coping skill with the loss of social relationships.

Based on Lazarus and Folkman's (1984) theory of cognitive appraisal, caregivers will realize that their social life, such as participating in social activities and maintaining social relationships, may have been affected by their role as a caregiver. In line with this,

the caregiver will conduct primary and secondary appraisal. If the caregiver considers his or her role as a threat to his or her social relationships, then it will proceed to the secondary appraisal of determining how they will cope with the stressful situation. However, the results revealed that the caregivers in the study do not use any coping skills in order to address the change in their social lives. In line with the cognitive appraisal, the caregivers in this study might not perceive the new role as a threat to his or her social relationships.

The fourth null hypothesis was as follows: The coping skills, as measured through the Jalowiec Coping Scale, shown by caregivers during the transition from wellness to illness of patients with ESRD do not significantly relate to the environment domain, as measured through the WHOQoL-BREF Scale. The fourth null hypothesis was not rejected. The result showed that the coping skill of optimistic shown by caregivers during the transition from wellness to illness of patients with ESRD significantly positively predict scores on the environment domain. This means that manifesting optimistic coping skill significantly influenced and had significant predictive relationship with environment domain of the quality of life of the caregivers, which extends the previous findings about the situation of the caregivers and how they are burdened by their role as a caregiver. .

Researchers confirmed that caregivers absorb a complex number of activities and responsibilities consisting of patient illness day-to-day treatments, management of diets, medications, symptoms, and personal care (Fox & Brenner, 2012; Friedemann & Buckwalter, 2014). This includes the common tasks of symptom management, coordinating appointments, managing supplies, meal preparations, and transportation. .

They may also absorb responsibilities of housekeeping, household maintenance, yard work, and child care (Friedemann & Buckwalter, 2014; Vilchinsky et al., 2015). In some situations, either the caregiver absorbs all of this at once or caregiver was already doing them and some of the tasks were added. In addition to the tasks mentioned above, caregivers may have to take on the responsibility of assisting with the administration of dialysis at home (Vilchinsky et al., 2015). With all these responsibilities, caregivers become highly distressed because their role is consuming all aspects of their lives and they must also prioritize the needs of their ill partner's over their own (Vilchinsky et al., 2015; Erez, Mikulincer, van Ijzendoorn, & Kroonenberg, 2008). Caregivers must be able to cope with the demands so that they provide a positive environment to the patient. However, they must also take care of themselves and preserve their self-worth (Beanlands et al., 2005; Friedemann & Buckwalter, 2014). It could be that the optimistic coping skill was the only coping skill that was effective in helping the caregivers and the patient in the current situation. The caregivers had to remain optimistic not only for himself or herself, but also for the patient.

It was expected that the supportant coping skills would also be used by the caregivers; however, in the given situation, optimistic coping skills might be better suited as the caregiver uses optimism to address the emotional demands of the situation. The other coping skills are confrontive, evasive, fatalistic, emotive, palliative, supportant, and self-reliant might not be the appropriate coping skills to use.

According to the theory of cognitive appraisal, occupation stress depends on the jobs and duties in a given situation (Goh, Sawang, & Oei, 2010; Meurs & Perrewe,

2011). Optimistic skills were the effective coping skills for the caregivers for them to be able to cope with the needs of the patient as well as their duties and responsibilities. They were optimistic about the situation, which helped them to create a positive environment for their patient.

Limitations of the Study

There were several limitations in the study. The first limitation was that the participants were limited to caregivers of patients with kidney disease. The participants were also limited to only one state in the United States. These characteristics may limit the generalizability of the results to other people who serve as caregivers to patients with other chronic illnesses and caregivers of patients with kidney disease who live in other states. There might be other factors that could influence the relationships between the variables in other states and other chronic illnesses.

The second limitation was that the population size of caregivers is large. However, it was not feasible for every caregiver to participate in the study. Thus, only those caregivers who affirmatively consented to participate in the study will be included in this study, which limited the generalizability of the findings of this study to the whole population.

The third limitation involved the research design of the study, which was a correlational research design. The results of the study only examined relationships between the independent and dependent variables and not the causes of the changes in the dependent variables. The study was limited in determining the descriptive relationships between the variables, but not causality between them. The use of self-reported

instruments could have also limited the results of the study. The participants might have answered the questionnaires based from what they expect the answers should be and not what they are. This may lead to social desirability which is a type of bias response were participants answer questions in a manner that is viewed favorably by others.

Recommendations

Future researchers could improve the research methodology of the current study. They could increase the sample size. They could also recruit caregivers from different states so that the results are more representative of the population of caregivers to patients with kidney diseases. Future researchers could also use random sampling so that there will be no self-selection bias in future studies. .

Based on the results from this study, the coping skills manifested by the caregivers were related to all domains of quality of life except the social relationships domain. Future researchers could explore the reasons coping skills did not significantly relate to the social relationships domain of the caregivers. The coping skills included in this study might be limited to the actions and behaviors of the caregivers in this study when their new role affects their social relationships. It is important to determine what the caregivers do when their social relationships are affected by their role as a caregiver.

The current study employed a correlational research design. Future researchers might want to conduct another quantitative study that employs a longitudinal research design to fully capture the transition from wellness to illness. Future researchers may also conduct a qualitative study to explore the phenomenon in an in-depth manner.

Implications

The results of the study contributed to the literature about the burden and satisfaction among caregivers of dialysis patients during the initial transition from wellness to illness. There are studies about the coping mechanism for caregivers of dialysis patients (Fife et al., 2013; Friedemann & Buckwalter, 2014); however, these studies did not focus on the early transition period from wellness to illness. The current study provided insights that contributed to the knowledge about the relationship between coping skills used in the early transition period from wellness to illness and the quality of life of the caregivers.

The results of the study can contribute to future therapeutic techniques. Based from the results of the study, caregivers will appraise their situation and assess how stressful their situation is. Based from this assessment, they will employ coping skills so that the stressful situation will have minimal impact to their quality of life. However, there were results in the current study that indicated that there was no correlation between coping skills and the different aspects of the lives of the caregivers. It might mean that these caregivers are not using any coping skills, which might have negative effects to their quality of life. The results can be used by therapists in order to introduce early interventions. During cases when a family members is the primary caregiver, the therapists can include interventions such as discussing coping skills and their difficulties to improve their quality of life.

Conclusion

While researching and analyzing the literature, many resources were found on caregivers and coping mechanism for several chronic diseases, specifically, ESRD. The resources, however, did not focus on the early transition period from wellness to illness, providing the need for further research and filling in the gap of the current study. The purpose of this quantitative correlational study was to identify how caregivers cope during the transition period between wellness to illness and identify if any effective coping mechanisms exist. The main research question in this study was how the coping skills manifested by caregivers during the transition from wellness to illness of patients with ESRD related to the quality of life domains.

Results of the multiple linear regression analysis showed that the coping skills of optimistic and emotive manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly positively predict scores on the physical health domain. Results of the multiple linear regression analysis showed that the coping skill of emotive manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly positively predict scores on the psychological domain. Results of the multiple linear regression analysis showed that the coping skill of optimistic manifested by caregivers during the transition from wellness to illness of patients with ESRD significantly positively predict scores on the environment domain. All the null hypotheses were rejected except for the third null hypothesis, which states that the coping skills manifested by caregivers during the transition from wellness to illness of patients with ESRD do not significantly positively predict scores on the social

relationships domain. The results of the study can provide information on how to develop effective coping mechanism strategy program that will assist the targeted group through the early distress period, potentially establishing effective coping mechanisms in their journey ahead.

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