

University of Northern Colorado

## Scholarship & Creative Works @ Digital UNC

---

Master's Theses

Student Research

---

5-2020

### **Stressors and Coping Styles Among Chronic Hemodialysis Patients in Vietnam**

Linh Thi Ngoc Nguyen

Follow this and additional works at: <https://digscholarship.unco.edu/theses>

---

UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

STRESSORS AND COPING STYLES AMONG CHRONIC  
HEMODIALYSIS PATIENTS IN VIETNAM

A Thesis Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Master of Science

Nguyen Thị Ngọc Linh

College of Natural and Health Sciences  
School of Nursing  
Advanced Nurse Generalist

May, 2020

This Thesis by: Nguyễn Thị Ngọc Linh

Entitled: *Stressors and Coping Styles among Chronic Hemodialysis Patients in Vietnam*

Has been approved as meeting the requirement for the Degree of Master of Science in College of Natural and Health Sciences in the School of Nursing, Advanced Nurse Generalist Program.

Accepted by the Thesis Committee:

---

Darcy Copeland, Ph.D., RN Research Advisor

---

Faye Hummel, Ph.D., RN. Committee Member

Accepted by the Graduate School

---

Cindy Wesley, Ph.D.  
Interim Associate Provost and Dean  
Graduate School and International Admissions

## ABSTRACT

Linh, Nguyen Thi Ngoc. *Stressors and Coping Styles among Chronic Hemodialysis Patients in Vietnam*. Unpublished Master of Science thesis, University of Northern Colorado, 2020.

The purpose of this study was to understand stressors experienced and coping styles used by 30 hemodialysis patients in Vietnam and to examine the relationship among stressors, coping styles, and demographics (age, gender, and length of treatment).

A quantitative, cross-sectional, descriptive study was conducted. Data collection took place in a government hospital in Ho Chi Minh City. The hospital has 60 hemodialysis machines. The hemodialysis department serves 450 scheduled hemodialysis patients and 60 emergency cases per day.

Stressors were divided into two groups: physical and psychosocial. Differences between physical and psychosocial stressors were obtained by dividing raw subscale scores by the number of items in the scale. The mean psychosocial stressor score was higher (1.23) than the mean physical stressor score (1.02). The most frequent stressors were limitation of fluid (1.7), decrease in social life (1.57), limitation of food (1.57), and sleep disturbances (1.57). The least reported stressors were reversal in family roles with the children (.27), fear of being alone (.73), reversal with spouse (.77), and frequent hospitalization (.77). The most common coping style used was emotive and the least common was evasive. The most common coping method used by hemodialysis patients was “Told yourself not to worry because everything would work out fine.” “Told

yourself the problem was someone else's fault" was the least common coping method used.

End stage renal disease necessitating hemodialysis could have a significant impact on patients' quality of life. It is important for hemodialysis providers to understand the stressors these patients experience and the coping methods they use to manage these stressors. Providing sufficient education prior to initiating hemodialysis treatment is an important part of helping patients to manage their stress. The more patients understand about their disease and the impact hemodialysis treatment would have on their lives the more their stress could be managed. Education could specifically be targeted to help patients manage changes to diet, sleep, and their social lives.

**Keywords:** Stressors, coping styles, hemodialysis, chronic renal disease

## **ACKNOWLEDGEMENTS**

First, I would like to express the deepest appreciation to my thesis advisor, Dr. Darcy Copeland, who has the attitude and substance of a genius; she continually and convincingly conveyed a spirit of adventure regarding research and an excitement in regard to teaching. Without her guidance and persistent help, this thesis would not have been possible.

Besides my advisor, my sincere thanks also go to Professor Faye Hummel for encouraging me throughout this program.

I would also like to take this opportunity to give a special thank you to all of my UNC professors: Professor Carlo Parker, Professor Katrina Einhellig, Professor Alison Merrill and Professor Katherine Sullivan for sharing their knowledge and passionate education during this program.

In addition, I deeply thank Dean Tran Thi Thuan for creating the opportunity for Vietnamese nursing students to achieve this education in the United States at the University of Northern Colorado.

I thank the Board of Medical Directors of Cho Ray Hospital and the head of the hemodialysis department, Dr Nguyen Minh Tuan, for permission to collect data.

I also thank my fellow peers in Viet Nam: Mai Nguyen, Long Tran, My Ngo, Dat Luu, Nhung Le, Hoa Nguyen, Van Nguyen, and Hanh Nguyen for the hard discussions, time, sleepless nights we worked together before deadlines, and for all of the fun we have had in the last two years.

Last but not the least, I would like to thank my family: my parents Son Nguyen and Huong Vo, for giving me a chance to take this journey and reach my nursing goals and for supporting me spiritually throughout my life.

## TABLE OF CONTENTS

CHAPTER I. INTRODUCTION.....	1
Introduction and Background .....	1
Background to the Current Study .....	3
Purpose of the Thesis .....	5
Research Questions.....	6
Theoretical Framework Relevant to the Thesis .....	6
Definition of Terms.....	6
Assumptions.....	7
Limitation.....	8
CHAPTER II. REVIEW OF THE LITERATURE.....	9
Introduction.....	9
Complications .....	11
Theoretical Background.....	14
Basis of Lazarus and Folkman’s Theory .....	14
Summary .....	16
CHAPTER III. METHODOLOGY .....	17
Project Design.....	17
Population Sample .....	17
Recruitment of Participants.....	18
Data Collection .....	18
Protection of Human Subjects .....	19
Data Analysis .....	19
CHAPTER IV. RESULTS.....	21
Demographic Data .....	21
Coping Method Results.....	32
Differences Between Stressors and Demographic Characteristics .....	34
Differences Between Coping Styles and Demographic Characteristics .....	36
CHAPTER V. DISCUSSION AND CONCLUSIONS .....	42
Common Stressors .....	43
Coping Styles.....	44



Gender .....	45
Coping Styles and Duration of Treatment .....	46
Stressors and Duration of Treatment .....	46
Relationship of the Demographic with Coping Styles and Stressors .....	47
Relationship Between Coping Styles and Coping Method Among Hemodialysis Patients .....	47
Conclusions .....	48
Limitations .....	48
Recommendations .....	48
Summary .....	48
REFERENCES .....	51
APPENDIX A. INSTITUTIONAL REVIEW BOARD APPROVAL .....	57
APPENDIX B. INFORMED CONSENT FOR PARTICIPATION IN HUMAN SUBJECTS RESEARCH: ENGLISH AND VIETNAMESE .....	59
APPENDIX C. STUDY QUESTIONNAIRE IN ENGLISH AND VIETNAMESE .....	64
APPENDIX D. PERMISSION LETTER TO USE HEMODIALYSIS STRESSOR SCALE .....	82
APPENDIX E. PERMISSION LETTER TO USE JALOWEC SCALE .....	84
APPENDIX F. PERMISSION LETTER TO CONDUCT SURVEY AT HEMODIALYSIS DEPARTMENT IN CHO RAY HOSPITAL .....	86

## LIST OF TABLES

1.	Demographic Data .....	22
2.	Hemodialysis Stressor Scale Results .....	23
3.	Jalowiec Coping Scale Results .....	24
4.	Descriptive Statistics from the Confronted Subscale of the Jalowiec Coping Scale .....	25
5.	Descriptive Statistics from the Evasive Subscale of the Jalowiec Coping Scale .....	26
6.	Descriptive Statistics from the Optimistic Subscale of the Jalowiec Coping Scale .....	27
7.	Descriptive Statistics from the Fatalistic Subscale of the Jalowiec Coping Scale .....	28
8.	Descriptive Statistics from the Emotive Subscale of the Jalowiec Coping Scale .....	28
9.	Descriptive Statistics from the Palliative Subscale of the Jalowiec Coping Scale .....	29
10.	Descriptive Statistics from the Supportant Subscale of the Jalowiec Coping Scale .....	30
11.	Descriptive Statistics from the Reliant Subscale of the Jalowiec Coping Scale .....	31
12.	Ten Most Common Coping Styles Reported by Patients .....	32
13.	Descriptive Statistics of Coping Methods Used .....	33
14.	Stressor Scores by Gender .....	35
15.	Stressor Scores by Age .....	36
16.	Coping Style Scores by Gender .....	37

17.	Coping Style Scores by Age .....	38
18.	Coping Style Scores by Duration of Treatment .....	40

## **CHAPTER I**

### **INTRODUCTION**

#### **Introduction and Background**

Chronic kidney disease (CKD), previously known as chronic renal failure, is defined by the global non-profit Kidney Disease: Improving Global Outcomes (KDIGO, 2017) as the loss of kidney structure or function lasting more than three months with deteriorating health implications. Glomerular filtration rate (GFR) is recognised as the best overall measure of kidney function and is frequently used in the diagnosis, staging, and management of CKD. Based on GFR levels, KDIGO classified CKD into five stages; the higher stages represented lower GFR levels and an increasing severity in renal damage, eventually necessitating dialysis. In the fifth stage, the patient would progress to end-stage renal disease (ESRD) and undergo renal replacement therapy (RRT). Renal replacement therapy including kidney transplantation, haemodialysis (HD), and peritoneal dialysis is necessary for the treatment of ESRD patients (KDIGO, 2017).

Hemodialysis is routinely offered to patients with ESRD in the United States who are ineligible for other renal replacement modalities. Indicators to continue HD (benefits) include the patient is dependent on HD to sustain life and has struggled with electrolyte and fluid shift issues. Given the impact of hemodialysis on patients' lives, patients might be discouraged if quality of life (QOL) is not addressed. A patient might believe his/her QOL is adequate but is angry he/she is not allowed to live independently and perseverate about not being able to live at home (Feely, Albright, Thorsteinsdottir,

Moss, & Swetz, 2014). Patients on dialysis are in situations of abject dependence on a machine, a procedure, and a group of qualified medical professionals for the rest of their lives. No other medical condition has such a degree of dependence for the maintenance treatment of a chronic illness. Dialysis as a procedure is stressful for the patient, necessitating adequate education and preparation with regard to pre-ESRD. In addition to the stress of dialysis, patients must also exercise considerable restraint on their selection of foods and fluids (De Sousa, 2008).

Coping styles are adaptive actions to help patients with chronic disease manage concerns in order to help them maintain a level of physical, mental, and social health. Coping with chronic illness is always a challenging and threatening process; thus, healthcare providers need to be aware of these conditions. If coping styles are used effectively, they can help in improving the performance and wellbeing of the individual. Understanding the stressors dialysis patients experience could help healthcare providers prepare patients to efficiently manage their stress and maintain QOL (De Sousa, 2008).

An investigation of the coping styles of haemodialysis patients would help to reveal the needs of patients in adapting to the disease and its complicating effects on their quality of life. A multidisciplinary team effort is often needed in the management of such patients. Mental health professionals might need to collaborate with nephrologists for holistic management through the treatment. Patients suffering from renal failure often present with unusual psychological problems. Treatment methods could vary on an individualized basis and drug therapy is often needed in the management of such problems. Feelings of certainty about long-term hemodialysis treatment and negative beliefs about the disease could lead to depression and poor quality of life. Unfortunately,

most healthcare professionals focus mainly on solving the physical problem of chronic renal disease. The application of interventions addressing coping styles for hemodialysis patients has been limited (Mok & Tam, 2000).

To date, several studies have shown Vietnamese haemodialysis patients usually have many reactions to ESRD. For this reason, coping styles were investigated to determine how patients managed personal demands in relationship with treatment, which would help nurses to better understand how to meet the needs of patients. Thus, it was decided what educational programs haemodialysis patients needed in order to decrease their stress with initial dialysis treatments or to help increase the proportion of patients using self-care dialysis. An intervention on coping styles would not only decrease the pressure of the disease and treatment but also promote patients' mental health, quality of life, and efficiency (Nguyễn & Hương, 2012) but first an assessment of stressors and coping styles was necessary.

### **Background to the Current Study**

Vietnam has about five million patients with kidney failure of which about 26,000 people have late-stage chronic renal failure. In addition, nearly 8,000 new cases of illness are diagnosed each year. Renal failure due to complications of metabolic diseases (diabetes, gout) has increased in recent years. In the United States, it is estimated the prevalence of CKD has increased 20%-25% in recent years, with a significant associated burden of illness (U.S. Renal Data System [USRDS], 2018). Chronic and life-threatening diseases are among the most stressful factors humans face.

Cho Ray Hospital is one of the three largest hospitals the Vietnamese Ministry of Health has invested in to ensure it becomes and remains a complete general hospital. The

hospital consists of 35 clinical, 11 sub-clinical, and eight functional departments. The main function of Cho Ray Hospital is treating patients from the southern provinces of Vietnam, teaching medical students and post graduates from both local and international institutions, undertaking scientific research, and directing first line treatment in the region.

Cho Ray Hospital is the teaching hospital of Ho Chi Minh City Medical School and the hospital actively organizes technological and technical training for doctors in the southern provinces. Each year, the hospital receives over 2,500 medical students and over 600 doctors for a variety of training courses. Cho Ray Hospital is the top referral hospital of the 37 southern provinces, including Ho Chi Minh City, and as such serves a total population of 40 million.

The dialysis department located at Cho Ray Hospital is responsible for supporting kidney transplantation, emergency dialysis for patients with acute renal failure, and caring for poisoning patients from city hospitals and hospitals in the southern provinces. Currently, the department provides outpatient dialysis treatment for more than 400 patients with chronic renal failure. When ESRD is diagnosed, a patient requires major alterations in life style including dialysis treatment sessions three days a week for the length of the disease. The period of treatment, hospitalization and treatment costs, mental status, and social damages as a result of chronic diseases influence the family, personal identity, psychosocial dimensions, emotional balance, merit, efficiency, social interactions, and interpersonal relations of the patients. Patients need to adapt to the disease and its complications as the resulting stress these patients experience affects their quality of life, co-morbidities, and mortality. In fact, adaptive actions help patients with

chronic diseases to cope with existing concerns in order to reach an acceptable level of health and physical, mental, and social function. When individuals with CKD need their initial treatment, it is an emergency situation and they are usually faced with an urgent decision regarding dialysis. They often do not know how haemodialysis works when a doctor recommends to start dialysis treatment (Nguyễn & Hoa, 2015). This might be because patients lack information, feel their choices are limited, or the education might be provided too late when patients are too ill to make decisions (Harwood, Wilson, & Locking-Cusolito, 2009).

### **Purpose of the Thesis**

The NKF/KDOQI Clinical Practice Guidelines (National Kidney Foundation [NKF], 2002a) and the Canadian Society of Nephrology clinical practice guidelines (Levin et al., 2008) recommended each healthcare centre have an established multidisciplinary team for the care of patients with CKD to deliver adequate medical and psychosocial care including preparation. Patients should be assessed in such a clinic as soon as possible (NKF, 2002b) or at least 12 months prior to the initiation of dialysis (Churchill, Blake, Jindal, Toffelmire, & Goldstein, 1999). This aimed to reduce the patient's psychological struggle by providing information and assessing the pre-treatment needs for the patient, to help them understand what they are supposed to do to better adapt to dialysis, and to have a satisfactory quality of life during dialysis treatment (De Sousa, 2008).

The purpose of this study was to develop knowledge of the stressors and coping skills of individuals receiving dialysis in Vietnam, which would be advantageous in guiding the design and delivery of services and supportive interventions for these



individuals. This knowledge might also lay the foundation for future studies exploring the influence of health behaviours and outcomes in CKD. The findings of this study also could help nurse practitioners in providing support, information, and alternative solutions when assisting patients in coping with long-term haemodialysis (Kidachi, Kikuchi, Nishizawa, Hiruma, & Kaneko, 2007).

### **Research Questions**

The following specific research questions guided this study:

- Q1    What are the primary stressors dialysis patients at Cho Ray Hospital in Vietnam experience?
- Q2    What are the coping styles dialysis patients at Cho Ray Hospital in Vietnam use?
- Q3    What is the relationship between demographic factors (gender, age, length of treatment time), stressors, and coping styles?

### **Theoretical Framework Relevant to the Thesis**

Lazarus and Folkman's (1984) theory provided the framework for this study.

This theory is a cognitive phenomenological theory of coping. It establishes a framework for the transactional process appraisal of an event while determining coping strategies and the outcome of the transaction.

### **Definition of Terms**

**Coping.** The process through which a person manages the demands of the person-environment relationship appraised as being stressful and that generate emotions (Lazarus & Folkman, 1984).

**Chronic kidney disease.** Defined by NKF/DOQI guidelines as the presence of kidney damage or decreased level of kidney function for three months or more irrespective of diagnosis (NKF, 2002a).

**Dialysis.** A treatment for kidney failure that removes waste and extra fluid from the blood using a filter. In hemodialysis (HD), the filter is a plastic tube filled with millions of hollow fibers called a dialyzer. This special filter functions as an artificial kidney to clean the blood. The dialyzer is a canister connected to the hemodialysis machine. During treatment, blood travels through tubes into the dialyzer, which filters out waste, extra salt, and extra water. Then the cleaned blood flows through another set of tubes back into the body. The hemodialysis machine monitors blood flow and removes waste from the dialyzer.

**Stress.** A particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being (Lazarus & Folkman, 1984). Since persons and environments reciprocally affect each other, the process is viewed as transactional while the person is interacting with changing events and moments in the environment. Stressful events stimulate stress. Stressors are circumstances that are appraised as stressful and threaten to exceed the available resources to overcome them (Lazarus & Folkman, 1984).

### **Assumptions**

The assumptions for this study included the following:

1. Coping style is associated with behavior.
2. All participants have some prior knowledge of coping strategies when they begin hemodialysis.
3. Coping styles can help to maintain mental pressures and reduce the amount of pressure individuals experience.

4. Coping styles can be incorporated into the goals of care and treatment for patients with chronic diseases, which will help them adapt to the disease and its outcomes.
5. If known, nurses can consider the coping strategies used by patients to help design a program of nursing care that aids in the patient's adaptation.

### **Limitation**

The small sample size of dialysis patients from one hospital in Ho Chi Minh City should be considered when interpreting the findings of this study as they might not be generalizable.

## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

#### **Introduction**

In 2016, there were 726,331 prevalent cases of ESRD; the crude prevalence was 2,160.7 per million in the U.S. population (USRDS, 2018). The number of prevalent ESRD cases has continued to rise by about 20,000 cases per year. In contrast to the standardized incidence rate, the age-sex-race-standardized prevalence of ESRD has continued to increase since 2006 (USRDS, 2018). In 2016, 87.3% of incident individuals began renal replacement therapy with hemodialysis (HD), 9.7% started with peritoneal dialysis (PD), and 2.8% received a preemptive kidney transplant. In 2016, 63.1% of all prevalent ESRD patients were receiving HD therapy, 7% were treated with PD, and 29.6% had a functioning kidney transplant. Among HD cases, 98.0% used in-center HD and 2.0% used home HD (USRDS, 2018).

Vietnam is a Southeast Asian country with a current population of over 92 million. It is estimated the prevalence of CKD stage 3 and stage 5 in Vietnam is 3.1% and 3.6%, respectively. The burden of CKD costs on total healthcare spending in Vietnam is likely to increase and will have important consequences on the sustainability of healthcare financing (Nguyễn & Hương, 2012). For this reason, current guidelines recommend that renal replacement therapy (RRT) units should provide access to all RRT modalities along with well-balanced information on the modalities presented in a

structured program. This would allow patients to choose the option best suited to their individual needs.

A study by Parvan, Hasankhani, Seyyedrasooli, Riahi, and Ghorbani (2015) discussed coping methods for stress among patients on hemodialysis and found coping methods were slightly helpful and emotion-oriented coping strategies were more frequently used than problem-oriented coping methods by dialysis patients. Thus, organized planning and training as well as assessment of problem-oriented coping strategies in patients are recommended. Parvan et al.'s finding was helpful, suggesting pre-dialysis education should include supportive coping interventions that would assist in making decisions regarding modality choices, facilitating vascular access placement, providing dietary education, assuring early detection and treatment of secondary hyperparathyroidism, and reducing cardiovascular risk factors. Having knowledge of the stressors and coping strategies utilized by individuals with early stage CKD would be advantageous in the design and delivery of services and supportive interventions for these individuals. This knowledge might also lay the foundation for future studies exploring the influence of stressors on health behaviors and outcomes in CKD (Harwood et al., 2009). In both of these studies, patients used problem-oriented and emotion-oriented coping strategies as they managed the effects and changes imposed by the illness.

Studies conducted in Hong Kong provided further understanding of the CKD experience. Harwood et al. (2009) interviewed 11 individuals on hemodialysis and asked them to describe retrospectively the stressors they experienced prior to dialysis. Mok, Lai, and Zhang (2004) interviewed 11 individuals with chronic renal failure to reflect on the past course of their illness to explore how they coped and what coping strategies they

used. They identified the following themes: coping with fluctuating feelings and concerns, motivation to cope, and interdependent relationships between patients and their family members. In both studies, patients experienced emotional reactions to CKD—helplessness, powerlessness, sadness, anger, fear, guilt, and indebtedness—as they dealt with the losses and changes imposed by the illness. When first faced with renal failure, they were frequently at a loss for what to do and often just cried or isolated themselves (Mok et al., 2004). In the study conducted by Harwood et al. (2009), individuals reported a variety of physical symptoms, psychosocial issues, logistics associated with the clinic itself (such as scheduling, multiple appointments, and waiting times), and lack of information. They not only identified a wide range of stressors for themselves but also identified the impact on family members. Both studies provided rich descriptions of the experience of patients with CKD but were retrospective in their design, occurring once the patients were already on dialysis. No tool measuring stressors specific to CKD exists and no studies have been conducted that measure stressors and coping strategies in a large sample of individuals with CKD not on dialysis. Lack of information about the stressors experienced by individuals with CKD and the coping strategies they employed make it difficult to design and deliver educational and supportive interventions for these individuals.

### **Complications**

One of the chronic and life threatening diseases 2-3% of people around the world experience is chronic renal failure. This disease is a pathological process with multiple causes leading to irreversible reduction in kidney function that results in ESRD, requiring that these patients undergo renal replacement therapies (hemodialysis, peritoneal dialysis

and kidney transplantation) for the rest of their lives to prevent uremia and its complications. Hemodialysis is the most common among these treatments. Not only ESRD disorders but the complications of hemodialysis make the patient's life hard and results in a reduction in quality of life. These patients need to adapt to the conditions since the goal of replacement therapies is not only to make their life longer but to promote their quality of life as well. High rates of depression, anxiety, sleep and marital relationship disorders, and high rates of suicide in these patients indicate the necessity of helping them to adapt to the changes resulting from both the disease and its treatment.

The utilization of coping strategies in chronic diseases could result in reduction of patient anxiety and concerns about the disease. Meanwhile, hemodialysis patients, like all other chronic patients and even sometimes more than other patients, are exposed to stress and use coping strategies as a supportive process. Based on evidence, these patients adopt various methods to cope with the stresses of the disease and treatment procedures. The manner of application in each of these methods depends on personal experiences, social support systems, personal beliefs, and the accessibility of these support resources. Coping strategies are a collection of personal cognitive and behavioral strategies adopted to interpret and modify stressful situations and could result in some relief in these situations. Two main strategies are emotion-focused strategies, including all attempts to regulate emotional outcomes of the stressful events and achieve an emotional balance through emotional control, and problem-focused coping strategies that include self-constructive behavior in relation with stressful situations to try to detect or change the source of stress (Affinito & Louie, 2018).

Early referral to a nephrologist and CKD clinic has been shown to slow the rate of progression of kidney disease, allow for the management of anaemia, provide for patient education to make decisions regarding modality choices, facilitate access placement, provide dietary education, assure early detection and treatment of secondary hyperparathyroidism, reduce cardiovascular risk factors, and offer supportive coping interventions (Bolton & Owen, 2002; Churchill et al., 1999; Levin, 2000; Pereira, 2000). Several studies demonstrated that early referral to a nephrologist or CKD clinic decreased morbidity, mortality, and healthcare costs (Kinchen et al., 2002; McLaughlin, Manns, Culleton, Donaldson, & Taub, 2001; Roubicek et al., 2000), improved long-term survival (Jungers et al., 2001), reduced the need for emergent dialysis (Schmidt, Domico, Sorkin, & Hobbs, 1998), was associated with superior patient outcomes (Goldstein, Yass, Dacouris, & McFarlane, 2004), and improved health-related quality of life for six months after the start of dialysis (Korevaar et al., 2002).

The effect of pre-dialysis education (RDE) can be quantified in medical and financial outcomes. In a Canadian study, RDE was shown to reduce urgent dialysis, reduce time spent in hospital, and improve resource utilization (Levin et al., 2008). Cost savings were estimated to be \$4,000 (Canadian) per patient in 1993. Other studies have shown RDE to result in earlier placement of permanent vascular access, a greater likelihood of choosing a self-care modality, extended time to dialysis initiation, and reduced mortality.

Patients on dialysis are in a situation of abject dependence on a machine, a procedure, and a group of qualified medical professionals for the rest of their lives. No other medical condition has such a degree of dependence on the maintenance and



treatment of a chronic illness. Patients with renal failure often suffer from many other medical conditions and are on many different medications. Many of these medications might, at times, cause psychiatric symptoms. Sometimes agitation and confusion might be noted as a result of a lack of psychiatric medication. These are very perplexing symptoms since the same might be observed in medical conditions such as electrolyte disturbances, hypertension, hypoglycaemia, aluminium toxicity, and dialysis dementia, which might also play a part in depression and anxiety (De Sousa, 2008).

### **Theoretical Background**

Lazarus and Folkman's (1984) transactional model of stress and coping provided the theoretical framework for this study. The transactional model is built on the appraisal that coping could be emotion-focused or problem-focused. Lazarus and Folkman suggested coping would be most effective if there was a match between the changeability of the stressor confronting the individual and the appropriate form of coping applied to the stressor.

### **Basis of Lazarus and Folkman's Theory**

Lazarus and Folkman's (1984) theory is one of the most comprehensive theories of stress and coping in psychological literature. Since the 1950s, Lazarus and other authors have studied coping and its function in managing stressful situations experienced by people. Lazarus and Folkman present perhaps the most known and accepted definition of coping regarding the cognitive changes and constant behavioural efforts to manage specific, internal, and/or external demands evaluated as a burden or as something that exceeds the person's resources.

During the 1980s, the Berkeley stress and coping project conducted a number of studies about the coping process based on a cognitive theory of stress and coping (Lazarus & Folkman, 1984). These studies furthered understanding of the coping process including its multidimensionality, the contextual person and environmental factors that influence it, and its relationship to emotions, psychological wellbeing, and physical health (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986).

The coping intervention is based on a cognitive-relational definition of stress in which stress is viewed as a relationship between the person and the environment cognitively appraised by the individual as personally significant and as taxing or exceeding their resources (Lazarus & Folkman, 1984). The relationship between the person and the environment is influenced by two processes: cognitive appraisal, which determines the meaning of the person-environment relationship and the person's emotional response, and coping, through which the person alters or manages the person-environment relationship. The person-environment relationship is always in flux and is constantly being reappraised. Reappraisals generate new emotions and coping behaviours in turn change the relationship.

Psychological stress is a relationship between the person and the environment appraised by the person as taxing or exceeding their resources and endangering their well-being (Lazarus & Folkman, 1984). Coping is the process through which a person manages the demands of the person-environment relationship that are appraised as being stressful. This is different in patients on hemodialysis with psychosocial stressors that cause physiological stressors and generate emotions.

## Summary

In Vietnam, ERSB patients usually experience stress associated with dialysis treatment. Additionally, these patients worry about whether to go to the doctor or go to dialysis and by what means because they have no insurance or their insurance coverage is very limited due to financial problems. There are also issues related to living alone or with others. Patients must also learn how to get to know and trust their doctor and how to manage the pain when the fistula is being accessed. The pain and treatment course could also cause them to give up and lose faith in their resilience. They might begin to think they are about to die, their life and dreams are broken, and consequently, life is no longer worthwhile.

In order for nurses to understand more about the stressors patients undergoing hemodialysis experience and help patients adapt to the many changes in their lives, this study aimed to assess those stressors and coping strategies used. This understanding might help nurses develop plans of care that optimally support these patients and their unique needs.

**CHAPTER III**  
**METHODOLOGY**  
**Project Design**

This quantitative, cross-sectional, descriptive study was conducted at Cho Ray hospital in Ho Chi Minh City, Vietnam. Chợ Ray Hospital is the largest general hospital in Ho Chi Minh City, Vietnam; it was founded in 1900 during the French colonial rule as Hôpital Municipal de Cholon. Over the years, the hospital has also been known as Hôpital Indigène de Cochinchine (1919), Hôpital Lolung Bonnoires (1938), and Hospital 415 (1945), until it was ultimately renamed Cho Ray in 1957. The facility was reconstructed on the area of 53,000 m<sup>2</sup> and was re-equipped to become one of the largest hospitals in Southeast Asia in June 1974 with the help of the Japanese government.

At present, the hospital has 35 clinical, 11 subclinical and eight functional departments. It organizes practice and postgraduate training for more than 2,500 medical students and 600 doctors each year. Cho Ray Hospital has 1,200 beds, employs 2,270 health workers including 500 medical doctors and pharmacists, and provides treatment for about 457,000 outpatients and 67,000 inpatients per year. The hemodialysis department serves 450 scheduled hemodialysis patients and 60 emergency cases per day. The hospital has 60 HD machines.

**Population Sample**

After ethical approval was received from the local research ethics board and the University of Northern Colorado's Institutional Review Board (see Appendix A), all

adult (18 years of age and older) patients who spoke and understood Vietnamese and attended the CKD hemodialysis unit during the data collection period were assessed for eligibility in the study. The researcher approached the patients, obtained informed consent (see Appendix B), and assisted in completion of the questionnaires when necessary.

### **Recruitment of Participants**

Patients were eligible to participate if they had ESRD, had received regular hemodialysis treatment for more than six months, were aged over 18 years, and could read and write. Patients in acute renal failure or those unable to consent were excluded.

### **Data Collection**

Thirty end stage renal disease patients receiving scheduled HD were asked if they would like to participate in the study when they arrived for HD. The purpose of the study was explained to them. If they agreed to participate, they were asked to complete a two part questionnaire (see Appendix C). The first part included demographic questions such as gender, age, and the length of treatment. The second part combined two scales that measured the stressors and coping styles among hemodialysis patients:

1. Hemodialysis Stressor Scale. Developed by Baldree, Murphy, and Powers (1982), this scale was used to measure types of stressors in hemodialysis patients (see Appendix D for permission to use). The instrument consists of 32-items and has a reliability coefficient of .80.
2. The Jalowiec Coping Scale (Jalowiec, 1995) was developed to measure the types of coping strategies used by hemodialysis patients and their perceived effectiveness (see Appendix E for permission to use). This 60-

item scale was based on Lazarus and Folkman's (1984) theory. This scale represents eight coping styles: confrontive, evasive, optimistic, fatalistic, emotive, palliative, supportive, and self-reliant. Respondents indicate how often the coping strategy is used and, if used, how helpful it is. Internal consistency Cronbach's alpha for the total use and effectiveness scales from previous studies were .88 and .95, respectively (Jalowiec, 1995).

### **Protection of Human Subjects**

Participants were informed that all information given by them would remain confidential and locked in a secure location. No identifying information was provided on the questionnaires to link responses to individual participants. Participants were also given the assurance that their participation was voluntary, they could withdraw at any time during the period of the project, and their participation or non-participation would have no effect on the care they received. Participants did not receive any remuneration to participate in the study. All participants received a copy of the informed consent after an explanation of the procedures. Consent was implied if questionnaires were completed and returned.

Approval for the project from the University of Northern Colorado's Institutional Review Board and a letter of support from Cho Ray Hospital formed part of the process to guarantee the protection of the human subjects (see Appendix F).

### **Data Analysis**

Data were analyzed using the Statistical Package for the Social Sciences software program (SPSS). Descriptive statistics for the demographic data and the Hemodialysis

Stressor Scale and Jalowiec Coping Scale data were analyzed. Chi squared tests of independence were used to examine associations among the demographics, stressors, and coping styles. An alpha level of .05 was used to determine statistical significance.

## **CHAPTER IV**

### **RESULTS**

This chapter presents the results of the study in four parts: analysis of demographic data, analysis of the stressor scale, analysis of the coping style scale, and analysis of relationships among stressors, coping style, and duration of dialysis treatment.

#### **Demographic Data**

Thirty patients participated; 63% of the patients were males and 37% were females. Most participants were between 31-40 years old (40%). Most participants (60%) had been undergoing dialysis treatment for more than five years and 36.7% of them for a period of less than five years. Table 1 provides participants' demographic details.

Stressors were divided into two groups: physical and psychosocial. Differences between physical and psychosocial stressors were obtained by dividing the raw sub scale scores by the number of items in the scale. The mean psychosocial stressor score was higher (1.23) than the mean physical stressor score (1.02). The most frequent stressors were limitation of fluid (1.7), decrease in social life (1.57), limitation of food (1.57), and sleep disturbances (1.57). The least reported stressors were reversal in family roles with children (.27), fear of being alone (.73), reversal with spouse (.77), and frequent hospitalization (.77). Table 2 provides the results from the Hemodialysis Stressor Scale.



Table 1

*Demographic Data*

Variables		<i>n</i>	%
Gender	Female	11	37.0
	Male	19	63.0
Age	From 18-30 years	3	10.0
	From 31-40 years	12	40.0
	From 41-50 years	7	23.3
	From 51- 66 years	8	26.7
Duration of Dialysis Treatment	Less than 5 years	11	36.7
	5 to 10 years	10	33.3
	10-15 years	8	26.7
	15-20 years	1	.30
Total		30	100.0

Table 2  
*Hemodialysis Stressor Scale Results*

Variables	<i>M</i>	Rank Ordering	<i>SD</i>
<b>Physical Stressors</b>			
1. Arterial and venous stick	1.47	1	0.78
2. Nausea and vomiting	1.33	2	0.71
3. Muscle cramps/soreness	1.13	3	0.90
4. Itching	1.13	3	0.90
6. Stiffening of joints	0.93	4	0.87
7. Feeling tired	0.83	5	1.08
30. Feeling related to treatment (i.e., feeling cold)	0.37	6	0.49
<b>Psychosocial Stressors</b>			
11. Limitation of fluid	1.70	1	0.95
9. Decrease in social life	1.57	2	1.10
10. Limitation of food	1.57	2	0.97
15. Sleep disturbances	1.57	2	0.93
12. Interference with job	1.53	3	1.28
14. Limitation of physical activities	1.53	3	1.07
13. Decrease in sexual drive	1.50	4	1.17
24. Limits on time and place for vacations	1.50	4	1.14
5. Length of treatment	1.43	5	1.04
20. Change in body appearance	1.43	5	1.14
28. Dependency on physicians	1.40	6	1.28
27. Dependency on nurses and technicians	1.37	7	1.27
22. Cost of treatment/transportation to treatment/or other cost	1.33	8	1.12
19. Uncertainly about future	1.30	9	1.26
21. Limited in styles of clothing	1.27	10	1.26
26. Dialysis machine and/ or equipment	1.27	10	1.23
8. Loss of body function	1.23	11	1.14
31. Boredom	1.10	12	1.06
32. Decreased ability to have children	1.00	13	1.20
23. Transportation to and from the unit	0.97	14	0.99
16. Changes in family responsibilities	0.90	15	1.09
1. Arterial & venous stick	0.83	16	1.09
17. Reversal in family role with spouse	0.77	17	1.04
25. Frequent hospital admissions	0.77	17	0.90
29. Fear of being alone	0.73	18	1.02
18. Reversal in family roles with the children	0.27	19	0.64

The 10 most common stressors experienced are illustrated in Table 3. This is consistent with previous findings where “the most frequently reported psychological concerns are food and fluid restrictions, unemployment, sexual problems, changes in body appearance, limitation on physical activities” (Gerogianni & Babatsikou, 2013).

Table 3

*Jalowiec Coping Scale Results*

Rank	Item	Type of Stressor	<i>M</i>
1	Limitation of fluid	Psychosocial	1.70
2	Decrease in social life	Psychosocial	1.57
3	Limitation of food	Psychosocial	1.57
4	Sleep disturbances	Psychosocial	1.57
5	Interference with job	Psychosocial	1.53
6	Limitation of physical activities	Psychosocial	1.53
7	Decrease in sexual drive	Psychosocial	1.50
8	Limits on time and place for vacations	Psychosocial	1.50
9	Feeling tired	Physiological	1.47
10	Change in body appearance	Physiological	1.43

Results from the JCS are also presented by subscale. Results from the confronted subscale are presented in Table 4. The most frequently reported confronted coping style was “Tried to look at the problem objectively and see all sides” (2.13) while “Learned something new in order to deal with the problem” (1.3) was the coping style least used by this sample of HD patients.

Table 4

*Descriptive Statistics from the Confronted Subscale of the Jalowiec Coping Scale*

Question	Rank	Coping Style	Range	<i>M</i>	<i>SD</i>
13	1	Tried to look at the problem objectively and see all sides	3	2.13	1.11
43	2	Practiced in your mind what had to be done	3	2.03	1.19
38	3	Set up a plan of action	3	2.00	1.11
27	4	Tried to find out more about the problem	3	1.97	1.07
25	5	Tried to change the situation	3	1.90	1.21
16	6	Tried to keep the situation under control	3	1.80	1.19
33	7	Tried to work out a compromise	3	1.77	1.19
4	8	Thought about different ways to handle the situation	3	1.73	1.26
29	9	Tried to handle things one step at a time	3	1.70	1.18
45	10	Learned something new in order to deal with the problem better	3	1.30	1.06

*N* = 30

Descriptive statistics from the evasive subscale of the JCS are presented in Table 5. The most utilized evasive coping mechanism was “Daydreamed about a better life” (2.3) while “Told yourself that the problem was someone else’s fault” and “Tried to get out of the situation” (.53) were the least frequently utilized evasive strategies reported.

Table 5

*Descriptive Statistics from the Evasive Subscale of the Jalowiec Coping Scale*

Question	<i>n</i>	Item	Range	<i>M</i>	<i>SD</i>
14	11	Daydreamed about a better life	22	2.30	3.92
10	12	Tried to put the problem out of your mind and think of something else	3	1.73	1.17
28	13	Slept more than usual	3	1.63	1.22
58	14	Wished that the problem would go away	3	1.63	1.16
35	15	Let time take care of the problem	3	1.57	1.135
48	16	Tried to ignore or avoid the problem	3	1.40	1.192
40	17	Put off facing up to the problem	3	1.37	1.159
55	18	Told yourself that this problem was really not that important	3	1.23	1.104
7	19	Tried to get away from the problem for a while	3	1.07	.980
56	20	Avoided being with people	3	.90	1.094
21	21	Waited to see what would happen	3	.80	.961
18	22	Tried to get out of the situation	2	.53	.730
20	23	Told yourself that the problem was someone else's fault	3	.53	.860

*N* = 30

Descriptive statistics from the optimistic subscale of the JCS are presented in Table 6. “Tried to keep a sense of humor” (2.13) was the most common optimistic coping style and “Told yourself that things could be much worse” (.53) was the least common.

Table 6

*Descriptive Statistics from the Optimistic Subscale of the Jalowiec Coping Scale*

Question	Item	Range	<i>M</i>	<i>SD</i>
24	Tried to keep a sense of humor	3	2.13	1.137
2	Hoped that things would get better	3	2.03	1.217
26	Tried to think positively	3	1.87	1.306
27	Told yourself not to worry because everything would work out fine	3	1.83	1.085
28	Tried to see the good side of the situation	3	1.80	1.243
29	Tried to keep your life as normal as possible and not let the problem interfere	3	1.73	1.285
30	Thought about the good things in your life	3	1.37	1.245
31	Compared yourself with other people who were in the same situation	3	1.20	1.157
5	Told yourself that things could be much worse	3	.53	.776

Descriptive statistics from the fatalistic subscale of the JCS are presented in Table 7. “Accepted the situation because very little could be done” (2.03) was the most common fatalistic coping style while “Expected the worst that could happen” and “Resigned yourself to the situation” (1.27) were the least common.

Table 7

*Descriptive Statistics from the Fatalistic Subscale of the Jalowiec Coping Scale*

Question	Number	Item	Range	<i>M</i>	<i>SD</i>
12	33	Accepted the situation because very little could be done	3	2.03	1.09
60	34	Told yourself that you were just having some bad luck	3	1.57	1.16
23	35	Resigned yourself to the situation because things looked hopeless	3	1.27	1.17
9	36	Expected the worst that could happen	3	1.27	1.20

*N* = 30

Descriptive statistics from the emotive subscale of the JCS are presented in Table 8. “Took out your tensions on someone else” (1.3) was found to be the most common coping style while “Did something impulsive or risky that you would not usually do” (.97) was the least common.

Table 8

*Descriptive Statistics from the Emotive Subscale of the Jalowiec Coping Scale*

Question	Number	Item	Range	<i>M</i>	<i>SD</i>
24	37	Took out your tensions on someone else	3	1.30	1.29
51	38	Blamed yourself for getting into such a situation	3	1.17	1.17
1	39	Worried about the problem	3	1.10	1.15
46	40	Did something impulsive or risky that you would not usually do	3	.97	1.21

*N* = 30

Descriptive statistics from the palliative subscale of the JCS are presented in Table 9. “Tried to distract yourself by doing something that you enjoy” (2.13) was the most common response while “Ate or smoked more than usual” (.27) was the least common.

Table 9

*Descriptive Statistics from the Palliative Subscale of the Jalowiec Coping Scale*

Question	Number	Item	Range	<i>M</i>	<i>SD</i>
36	41	Tried to distract yourself by doing something that you enjoy	3	2.13	1.07
6	42	Exercised or did some physical activity	3	1.97	1.06
26	43	Used relaxation techniques	3	1.60	1.13
44	44	Tried to keep busy	3	1.30	1.08
53	45	Took medications to reduce tension	3	1.20	1.24
3	46	Ate or smoked more than usual	2	.27	.64

*N* = 30

Descriptive statistics from the supportant subscale of the JCS are presented in Table 10. “Talked the problem over with a professional person (such as a doctor, nurse, minister, teacher, counselor)” (1.93) was the most common response and “Depended on others to help you out “(.97) was the least common mechanism used.



Table 10

*Descriptive Statistics from the Supportant Subscale of the Jalowiec Coping Scale*

Question	Number	Item	Range	<i>M</i>	<i>SD</i>
15	47	Talked the problem over with a professional person (such as a doctor, nurse, minister, teacher, counselor)	3	1.93	1.08
42	48	Talked the problem over with someone who had been in a similar situation	3	1.83	1.08
11	49	Talked the problem over with family or friends	3	1.73	1.14
17	50	Prayed or put your trust in God	3	1.03	1.29
59	51	Depended on others to help you out	3	.97	.92

*N* = 30

Descriptive statistics from the reliant subscale of the JCS are presented in Table 11. “Tried to improve yourself in some way so you could handle the situation better” (1.83) was found to be the most common response while “Wanted to be alone to think things out” (1.0) was the least common response.

The 10 most common coping style items are presented in Table 12. The most common coping style used was "Worried about the problem" in the emotive subscale going first and the last was "Tried to put the problem out of your mind and think of something else" in the evasive subscale.

Table 11

*Descriptive Statistics from the Reliant Subscale of the Jalowiec Coping Scale*

Question	Number	Item	Range	<i>M</i>	<i>SD</i>
57	52	Tried to improve yourself in some way so you could handle the situation better	3	1.83	1.17
41	53	Tried to keep your feelings under control	3	1.80	1.15
19	54	Kept your feelings to yourself	3	1.17	1.02
31	55	Thought about how you had handled other problems in the past.	3	1.13	1.13
52	56	Preferred to work things out yourself	3	1.07	1.14
37	57	Told yourself that you could handle anything no matter how hard	3	1.03	1.06
22	58	Wanted to be alone to think things out	3	1.00	1.08

*N* = 30

Table 12

*Ten Most Common Coping Styles Reported by Patients*

Rank	Item	Subscale	<i>M</i>
1	Worried about the problem	Emotive coping style	1.10
2	Hoped that things would get better	Optimistic coping style	2.03
3	Ate or smoked more than usual	Palliative coping style	.27
4	Thought out different ways to handle the situation	Confronted coping style	1.73
5	Told yourself that things could be much worse	Optimistic coping style	.53
6	Exercised or did some physical activity	Palliative coping style	1.97
7	Tried to get away from the problem for a while	Evasive Scale	1.07
8	Got mad and let off steam	Emotive coping style	.77
9	Expected the worst that could happen	Fatalistic coping style	1.27
10	Tried to put the problem out of your mind and think of something else	Evasive Scale	1.73

**Coping Method Results**

Table 13 shows the means and standard deviations of coping methods used by HD patients. “Told yourself not to worry because everything would work out fine” was found to be the most common and most helpful coping method with a mean of 1.67 while “Told yourself that the problem was someone else’s fault” was least helpful to HD patients with the lowest standard deviation of 0.651.

Table 13

*Descriptive Statistics of Coping Methods Used*

Order	Number	Items	Range	<i>M</i>	<i>SD</i>
1	32	Told yourself not to worry because everything would work out fine	13	1.67	2.27
2	27	Tried to find out more about the problem	3	1.60	.85
3	36	Tried to distract yourself by doing something that you enjoy	3	1.60	.89
4	39	Tried to keep a sense of humor	3	1.57	.85
5	12	Accepted the situation because very little could be done	3	1.53	.93
6	13	Tried to look at the problem objectively and see all sides	3	1.53	.90
7	25	Tried to change the situation	3	1.50	.90
8	38	Set up a plan of action	3	1.50	.90
9	42	Talked the problem over with someone who had been in a similar situation	3	1.43	.89
10	43	Practiced in your mind what had to be done	3	1.40	.85
11	50	Tried to think positively	3	1.37	.99
12	30	Tried to keep your life as normal as possible and not let the problem interfere	3	1.37	.99
13	2	Hoped that things would get better	3	1.37	.89
14	15	Talked the problem over with a professional person (such as a doctor, nurse, minister, teacher, counselor)	3	1.33	.95
15	33	Tried to work out a compromise	3	1.33	.95
16	54	Tried to see the good side of the situation	3	1.33	1.02
17	26	Used relaxation techniques	3	1.33	.84
18	4	Thought out different ways to handle the situation	3	1.30	.98
19	6	Exercised or did some physical activity	3	1.27	.86
20	16	Tried to keep the situation under control	3	1.27	.90
21	10	Tried to put the problem out of your mind and think of something else	3	1.27	.94
22	11	Talked about the problem objectively to see all sides	3	1.23	.89
23	28	Slept more than usual	3	1.23	1.13
24	57	Tried to improve yourself in some way so you could handle the situation better	3	1.23	.817
25	48	Tried to ignore or avoid the problem	9	1.23	1.65
26	14	Daydreamed about a better life	3	1.20	.96
27	35	Let time take care of the problem	3	1.20	1.03
28	29	Tried to handle things one step at a time	3	1.13	.90
29	41	Tried to keep your feelings under control	3	1.13	.97
30	24	Took out your tensions on someone else	3	1.07	1.17
31	58	Wished that the problem would go away	3	1.03	.99
32	23	Resigned yourself to the situation because things looked hopeless	3	1.00	.91

Table 13 continued

Order	Number	Items	Range	<i>M</i>	<i>SD</i>
33	40	Put off facing up to the problem	3	1.00	.98
34	45	Learned something new in order to deal with the problem better	3	.97	.85
35	9	Expected the worst that could happen	3	.97	.92
36	44	Tried to keep busy	2	.97	.80
37	51	Blamed yourself for getting into such a situation	3	.97	.89
38	47	Thought about the good things in your life	3	.90	.99
39	37	Told yourself that you could handle anything no matter how hard	3	.87	.86
40	31	Thought about how you had handled other problems in the past.	3	.87	.90
41	60	Told yourself that you were just having some bad trust	3	.87	1.04
42	19	Kept your feelings to yourself	2	.83	.74
43	49	Compared yourself with other people who were in the same situation	3	.83	.91
44	53	Took medications to reduce tension	3	.83	.95
45	56	Avoided being with people	3	.77	.97
46	46	Did something impulsive or risky that you would not usually do	2	.77	.93
47	52	Preferred to work things out yourself	3	.77	.85
48	22	Wanted to be alone to think things out	2	.70	.79
49	34	Took a drink to make yourself feel better	3	.70	.98
50	1	Worried about the problem	3	.67	.80
51	17	Prayed or put your trust in God	2	.67	.88
52	7	Tried to get away from the problem for a while	2	.63	.66
53	8	Got mad and let off steam	2	.63	.76
54	21	Waited to see what would happen	3	.60	.77
55	59	Depended on others to help you out	2	.57	.72
56	55	Told yourself that this problem was really not that important	2	.53	.62
57	3	Ate or smoked more than usual	3	.47	.86
58	5	Told yourself that things could be much worse	2	.43	.67
59	18	Tried to get out of the situation	2	.40	.56
60	20	Told yourself that the problem was someone else's fault	2	.30	.65

### **Differences Between Stressors and Demographic Characteristics**

The mean physical stressor score for females was (1.48±0.81) and for males, it was (1.10±0.66) with no significant differences ( $p = .084$ ). The mean psychological

stressor score for females was ( $1.24 \pm 0.61$ ) and for males, it was ( $0.90 \pm 0.43$ ) with no significant differences ( $p = .177$ ). The overall mean stressor score for females was ( $1.42 \pm 0.74$ ) and for males, it was ( $1.05 \pm 0.58$ ) with no significant differences in overall stressors based on gender ( $p = 0.141$ ). Table 14 provides the means and standard deviations by gender.

Table 14

*Stressor Scores by Gender*

Scale	Sex	<i>n</i>	<i>M</i>	<i>SD</i>
Scale 1 Physiological	Female	11	1.48	.817
	Male	19	1.10	.662
	Total	30	1.24	.733
Scale 2 Psychological	Female	11	1.24	.613
	Male	19	.90	.436
	Total	30	1.02	.525
Mean Stressor	Female	11	1.42	.740
	Male	19	1.05	.589
	Total	30	1.19	.661

Table 15 shows mean stress scale scores by age group. There were no significant differences in physiological— $F(3, 26) = .864, p = 0.472$ ), psychological— $F(3, 26) = .501, p = 0.685$ ) or overall— $F(3, 26) = .571, p = 0.639$ ) stress scale scores based on age.

Table 15

*Stressor Scores by Age*

	Age	<i>N</i>	<i>M</i>	<i>SD</i>
Scale 1 Physiological	20 to 30 years	3	1.19	.329
	30 to 40years	12	.84	.582
	40 to 50 years	7	1.20	.348
	50 to 60 years	8	1.08	.610
	Total	30	1.02	.525
Scale 2 Psychological	20 to 30 years	3	1.45	.848
	30 to 40years	12	1.10	.787
	40 to 50 years	7	1.48	.692
	50 to 60 years	8	1.15	.717
	Total	30	1.24	.733
Mean Stressor	20 to 30 years	3	1.39	.694
	30 to 40years	12	1.04	.710
	40 to 50 years	7	1.42	.604
	50 to 60 years	8	1.14	.676
	Total	30	1.19	.661

There were no significant differences in psychological— $F(3, 26) = 2.007, p = 0.138$ ), physiological— $F(3, 26) = 1.648, p = 0.138$ ), or overall— $F(3, 26) = 2.114, p = 0.123$ ) stress scores based on duration of treatment.

### **Differences Between Coping Styles and Demographic Characteristics**

Coping styles used among HD patients by gender are displayed in Table 16. No significant differences were found in any subscale or overall coping style score based on gender.

Table 16

*Coping Style Scores by Gender*

Scale	Gender	<i>N</i>	<i>M</i>	<i>SD</i>
Scale 1 Confrontive Coping Style	Female	10	1.88	.687
	Male	19	1.78	1.02
	Total	29	1.82	.912
Scale 2 Evasive Coping Style	Female	11	1.27	.424
	Male	19	1.29	.899
	Total	30	1.28	.751
Scale 3 Optimistic Coping Style	Female	11	1.75	.675
	Male	19	1.52	.952
	Total	30	1.61	.856
Scale 4 Fatalistic Coping Style	Female	11	1.65	.831
	Male	19	1.46	.969
	Total	30	1.53	.911
Scale 5 Emotive Coping Style	Female	11	1.27	.627
	Male	19	1.05	.856
	Total	30	1.13	.776
Scale 6 Palliative Coping Style	Female	11	1.37	.453
	Male	19	1.42	.803
	Total	30	1.41	.687
Scale 7 Supportant Coping Style	Female	11	1.43	.747
	Male	19	1.53	.889
	Total	30	1.50	.828
Scale 8 Self Reliant Coping Style	Female	11	1.36	.858
	Male	19	1.24	.807
	Total	30	1.29	.813
Mean Coping	Female	10	1.48	.526
	Male	19	1.41	.794
	Total	29	1.44	.704



Table 17 shows mean scores for coping style based on age. No significant score differences were found in any subscale or overall coping style based on age.

Table 17

*Coping Style Scores by Age*

Scale	Years of Age	<i>n</i>	<i>M</i>	<i>SD</i>
Scale 1 Confrontive Coping Style	20 to 30 years	3	1.93	.152
	30 to 40years	12	1.77	.978
	40 to 50 years	7	2.05	.369
	50 to 60 years	7	1.61	1.364
	Total	29	1.82	.912
Scale 2 Evasive Coping Style	20 to 30 years	3	1.41	.160
	30 to 40years	12	1.04	.608
	40 to 50 years	7	1.85	.692
	50 to 60 years	8	1.09	.929
	Total	30	1.28	.751
Scale 3 Optimistic Coping Style	20 to 30 years	3	1.70	.739
	30 to 40years	12	1.37	.862
	40 to 50 years	7	1.98	.387
	50 to 60 years	8	1.59	1.162
	Total	30	1.61	.856
Scale 4 Fatalistic Coping Style	20 to 30 years	3	2.41	.520
	30 to 40years	12	1.14	.815
	40 to 50 years	7	2.00	.577
	50 to 60 years	8	1.37	1.093
	Total	30	1.53	.911
Scale 5 Emotive Coping Style	20 to 30 years	3	1.41	.381
	30 to 40years	12	.97	.734
	40 to 50 years	7	1.67	.534
	50 to 60 years	8	.78	.920
	Total	30	1.13	.776

Table 17

Scale	Years of Age	<i>n</i>	<i>M</i>	<i>SD</i>
Scale 6 Palliative Coping Style	20 to 30 years	3	1.27	.254
	30 to 40years	12	1.18	.617
	40 to 50 years	7	1.97	.485
	50 to 60 years	8	1.31	.842
	Total	30	1.41	.687
Scale 7 Supportant Coping Style	20 to 30 years	3	1.26	.305
	30 to 40years	12	1.33	.832
	40 to 50 years	7	1.94	.377
	50 to 60 years	8	1.45	1.155
	Total	30	1.50	.828
Scale 8 Self-Reliant Coping Style	20 to 30 years	3	1.19	.675
	30 to 40years	12	1.11	.858
	40 to 50 years	7	1.61	.457
	50 to 60 years	8	1.30	1.056
	Total	30	1.29	.813
Mean Coping	20 to 30 years	3	1.57	.149
	30 to 40years	12	1.24	.664
	40 to 50 years	7	1.88	.150
	50 to 60 years	7	1.27	1.059
	Total	29	1.44	.704

Table 18 shows coping styles used among HD patients by duration of treatment.

No significant differences were found in any subscale or overall coping style score based on duration of treatment.

Table 18

*Coping Style Scores by Duration of Treatment*

Scale	Duration of Treatment	<i>n</i>	<i>M</i>	<i>SD</i>
Scale 1 Confrontive Coping Style	Under 5 Years	10	1.48	1.054
	From 5 to 10	10	2.23	.905
	From 10 to 15	8	1.75	.656
	From 15 to 20	1	1.70	
	Total	29	1.82	.912
Scale 2 Evasive Coping Style	Under 5 Years	11	1.21	.964
	From 5 to 10	10	1.42	.569
	From 10 to 15	8	1.18	.735
	From 15 to 20	1	1.46	
	Total	30	1.28	.751
Scale 3 Optimistic Coping Style	Under 5 Years	11	1.36	.968
	From 5 to 10	10	2.02	.840
	From 10 to 15	8	1.40	.625
	From 15 to 20	1	1.88	
	Total	30	1.61	.856
Scale 4 Fatalistic Coping Style	Under 5 Years	11	1.36	.957
	From 5 to 10	10	1.77	.901
	From 10 to 15	8	1.40	.953
	From 15 to 20	1	2.00	
	Total	30	1.53	.911
Scale 5 Emotive Coping Style	Under 5 Years	11	.93	.767
	From 5 to 10	10	1.22	.803
	From 10 to 15	8	1.21	.828
	From 15 to 20	1	1.75	
	Total	30	1.13	.776
Scale 6 Palliative Coping Style	Under 5 Years	11	1.07	.647
	From 5 to 10	10	1.63	.744
	From 10 to 15	8	1.56	.603
	From 15 to 20	1	1.66	
	Total	30	1.41	.687

Table 18

Scale	Duration of Treatment	<i>n</i>	<i>M</i>	<i>SD</i>
Scale 7 Supportant Coping Style	Under 5 Years	11	1.21	.812
	From 5 to 10	10	1.74	.889
	From 10 to 15	8	1.57	.817
	From 15 to 20	1	1.60	
	Total	30	1.50	.828
Scale 8 Self-Reliant Coping Style	Under 5 Years	11	1.10	.845
	From 5 to 10	10	1.71	.903
	From 10 to 15	8	.96	.462
	From 15 to 20	1	1.71	
	Total	30	1.29	.813
Mean Coping	Under 5 Years	10	1.17	.787
	From 5 to 10	10	1.72	.686
	From 10 to 15	8	1.38	.598
	From 15 to 20	1	1.72	
	Total	29	1.44	.704

## CHAPTER V

### DISCUSSION AND CONCLUSIONS

Based on demographic characteristics of the observed HD patients, there were more males than females and one-third of participants were in the age group of 40- to 50-years-old. About half of the participants had been receiving dialysis for a duration of less than five years, which reflected the rapid increase of ESRD patients.

About two-thirds of patients experienced mild to moderate levels of total stress but physiological stress had a larger effect than psychosocial stress. Similar findings were reported by Mok and Tam (2000) where a mean score for physiological stressors was 1.50 ( $SD = 0.63$ ) and a mean psychological stressor score was 1.30 ( $SD = 0.58$ ). In their study, the most common physiological stressors were arterial and venous stick, nausea, vomiting, and muscle cramps. The most common psychosocial stressors were limitations of fluid and decreases in social life. These findings were consistent with the current sample of HD patients in Vietnam.

Furthermore, it has been suggested that among the stressors experienced by Vietnamese patients receiving hemodialysis, dependency/restrictions were among the most important (Dang, Lai, & Lin, 2016). Dang et al. (2016) also suggested “healthcare professionals should be aware of this specific finding that younger patients undergoing hemodialysis probably have more concern about dependency and restrictions” (p. 6). While this study found no significant differences concerning dependency and restrictions in younger patients, perhaps this concern was related to occupational context. For

instance, if these patients did not have a stable job, it might have created financial dependency and, therefore, stress but those data were not collected as part of this study.

### **Common Stressors**

The most common stress item reported was limits on fluids, which was consistent with previous findings (Mok & Tam, 2000). Fluid restrictions might have significance to Vietnamese patients who live in a hot climate. However, it has been suggested that long-term restriction of food and fluid is a difficult challenge for patients receiving HD at first but they gradually become accustomed to these restrictions (Yeh & Chou, 2007).

The second most common stressor was a decrease in the patient's social life. This might be particularly significant for 20- to 45-year-old adults who are the economic providers for their families as their financial situations might be at risk after they are diagnosed if they are unable to work. Additionally, when they face long-term chronic illnesses such as ESRD and need to routinely receive dialysis to survive, their stressors and coping mechanisms might differ from those of individuals in other age groups. Identifying stressors and coping strategies might inform areas for future interventions to support this specific, young, working-age population.

Primary stressors among this sample were fluid limitations, food limitations, and a decrease in social life. Vietnamese culture revolves heavily around eating and drinking. Vietnamese people of all ages love to spend time together and hang out with friends; in this arena, they eat and drink to show their hospitality. A major part of every Vietnamese meal is Vietnamese soup. These details might provide explanations for why these stressors were significant among this sample of Vietnamese patients receiving hemodialysis.

## Coping Styles

The study results revealed different coping styles used among HD patients. The highest reported coping style was “Daydreamed about a better life,” which was defined by Jalowiec (1995) as doing things to avoid or delay dealing with the problem. This finding was supported by studies done by Tu, Shao, Wu, Chen, and Chuang (2013) and Al Nazly and Ahmad (2014) where this was the most frequent coping style used and was also rated the most effective.

The second most common coping style used was confrontive coping, which was defined by Jalowiec (1995) as constructive—using problem-solving to face up to and confront the problem. The high mean of the use of confrontive coping styles related to the item “tried to look at the problem objectively and see all sides,” which ranked number one.

The other coping style item with the highest mean was “tried to keep a sense of humor,” which belonged to the Optimistic Coping category. Similar findings were reported in a study done by Logan, Pelletier-Hibbert, and Hodgins (2006). It is known that Vietnamese patients usually believe in the power of positive thinking and if you are happy, everything will turn out okay. The second highest mean was for the item “tried to distract yourself by doing something that you enjoy,” which belonged to the Palliative Coping style. It means doing things to make yourself feel better and try to release stress (like eating, drinking, taking medications, exercising, relaxation methods). These two items were identified as being the most used and the most effective.

## **Gender**

### **Coping Style and Gender**

In this sample, there were no significant differences in coping between males and females. These results agreed with Logan et al. (2006) and Yeh and Chou (2007), which showed no significant difference between coping style and gender. The most used coping styles by both male and female participants were confrontive and optimistic. On other hand, Bertolin, Pace, Kusumota, and Haas (2011) found women had higher mean coping scores across coping styles.

The mean score for confrontive coping style for males was (1.78) and it was (1.88) for females. No significant difference between males and females was found. These results were in agreement with Klang, Bjorvell, and Cronquist (1996), who found men used more confrontational styles of coping than women. In contrast, Al Nazly and Ahmad's (2014) study revealed women used confrontive coping behavior, which is characterized as a problem-focused coping behavior, more than men.

### **Stressors and Gender**

No significant differences in stressors were experienced based on gender, which was in agreement with a study done by Al Nazly and Ahmad in 2014. However, work/family conflicts exist among Vietnamese working women. They need to do and handle multiple responsibilities and play many roles such as mother, wife, caregiver, and patient. In Vietnamese culture, women need to spend most of their time taking care of their family, whether they are employed or not. That could mean female patients in this study might have had more experience managing psychosocial stressors than male patients.



### **Coping Styles and Duration of Treatment**

The mean score for coping was highest among those with a duration of treatment between 5 and 10 years, although there were no significant differences in coping based on duration of treatment. This was in agreement with the study by Harwood et al. (2009), which reported no correlation between an individual's length of time on hemodialysis and coping styles used. Additionally, the length of time a patient received dialysis was researched with coping styles but no significant differences were found (Yeh & Chou, 2007).

In contrast, Al Nazly and Ahmad (2014) found a negative relationship between duration of treatment and some coping strategies. Specifically, the longer the participants had been on hemodialysis, the less they used "seeking social support" and "accepting responsibility" as coping strategies. In addition, Gurklis and Menke (1988) found a weak positive relationship ( $r = .26$ ) between length of time undergoing dialysis and problem-oriented coping.

### **Stressors and Duration of Treatment**

No significant differences were found in stressors based on duration of treatment. However, patients with a duration of treatment under five years, typically younger patients, experienced more stressors and tried more coping styles to help them adapt to hemodialysis than patients with a duration of treatment from 15 to 20 years.

In another study, Lok (1996) reported weak to moderate positive relationships between patient's length of time on hemodialysis and total stressors ( $r = 0.35$ ) and psychosocial stressor ( $r = 0.44$ ) scores. He suggested people's stress levels tended to increase the longer they were on dialysis but in this study, a negative correlation was

found. Patients who were on dialysis for a duration of treatment from three to five years reported significantly higher levels of stress than those who had spent a long time on dialysis or who were new to dialysis. Tu et al. (2013) found the longer the patients had received hemodialysis, the lower their stress level.

### **Relationship of the Demographic with Coping Styles and Stressors**

When faced with stressful situations, coping styles were used to manage those situations. Coping styles need to be understood within the context of an individual's current situation and environment. A significant difference between physiological stressors and coping styles was found in a study by Gurklis and Menke (1988).

### **Relationship Between Coping Styles and Coping Method Among Hemodialysis Patients**

The most common coping method in this study was "Told yourself not to worry because everything would work out fine." Vietnamese people try to accept things that happen and try to think positively. Vietnamese people are not familiar with processes and procedures when they are facing a newly diagnosed chronic disease so they lack information about treatment. Chronic kidney disease patients often have questions about why they have the illness and what dialysis is and how it is used for treatment. They might pray according to the Buddhist tradition and wish they could change the situation with the coping strategy of "Tried to find out more about the problem." This might explain why patients used cognitive methods to reduce the intensity of negative emotions, allowing them to become more in control of their feelings.

### **Conclusions**

This study found no significant differences between demographic data and stressors or demographic data and coping styles. The only significant difference between stressors and coping styles was found regarding length of treatment. New hemodialysis patients (less than five years of hemodialysis) had more stressors that were influenced by treatment than experienced patients with over five years of treatment experience.

### **Limitations**

Several limitations of this study existed including the questionnaire might have been perceived as too long, the questionnaire might have been difficult to understand due to differences in Vietnamese culture, and the sample was small and from a single dialysis center.

### **Recommendations**

Vietnamese HD patients in this study identified the stressors they experienced and the coping styles and coping methods they used most frequently and those that were most helpful. The coping styles they used depended on their personal experience, specifically the number of years in treatment. This information could help Vietnamese healthcare professionals perform good assessments of stressors among this specific population (Dang et al., 2016). Specifically, the importance of pre-education for HD patients addressing the stressors they would experience and discussion of coping styles and methods was highlighted.

### **Summary**

In Vietnam, initiation of hemodialysis treatment is usually unplanned. Several studies have shown a strong relationship among late nephrology referral, poor outcomes

consisting of increased hospitalization rate, and emergency hemodialysis. This study conducted at Cho Ray Hospital identified stressors that primarily new patients experienced and the coping styles used by these HD patients.

In Vietnam, six million people (6.73% of the general population) have been estimated to be diagnosed with chronic kidney disease. Of these six million patients, 80,000 (1.3%) patients have already reached ESRD. Annually, 8,000 patients are newly diagnosed, 104 of whom (1.3%) will also go on to require HD services. The number of ESRD patients on HD has been estimated as 10,338. End stage renal disease patients receive the following treatments: 87% receive HD, 8.7% receive continuous ambulatory peritoneal dialysis, and 4.3% receive renal transplantation.

The purpose of this study was to assess Vietnamese HD patients' stressors and coping styles used to determine if there was a relationship between those and demographic factors. A quantitative, cross sectional descriptive study was demonstrated to achieve the aims of the research. Data collection took place in the Hemodialysis Department at Cho Ray Hospital. The sample size was 30 HD patients, the Hemodialysis Stressors Scale was used to assess the stressors these patients experienced, and the Jalowiec Coping Scale was used to assess the coping styles and methods among HD patients.

This study found HD patients experienced more psychosocial stressors than physiological stressors. The most frequent stressors were limitation of fluids, decrease in social life, limitation of food, and sleep disturbances. The least affected stressors were reversal in family roles with the children, fear of being alone, and reversal with spouse. The coping style with the highest mean was "tried to keep a sense of humor," which

belonged to an Optimistic Coping style. A similar finding was reported in a study done by Logan et al. (2006). It is known that Vietnamese patients usually believe in positive thinking and if you are happy, everything will work out. The second-highest mean coping style was “tried to distract yourself by doing something that you enjoy,” which belonged to the Palliative Coping style. It means doing things to make yourself feel better and to try to release stress (e.g., eating, drinking, taking medications, exercising, relaxation methods). These two items were recorded to be the most used and most helpful in the Coping scale. The most common coping method in this study was “told yourself not to worry because everything would work out fine.” This is a common belief in Vietnam as people are usually accepting of the things that happen and try to think positively. Vietnamese people are not familiar with processes and procedures when facing a newly diagnosed chronic disease and they lack treatment information and understanding of their condition.

This study would be helpful for healthcare professionals who should include assessment of stressors, coping style, and coping methods in a pre-dialysis education program for patients newly undergoing treatment. The Ministry of Health should develop a guideline for the healthcare profession regarding the correct treatment order, meaning patients should receive a nephrologist referral as soon as possible to prepare for the psychological stressors of HD and develop coping methods to manage those stressors.

## REFERENCES

- Affinito, J., & Louie, K. (2018). Positive coping and self-assessed levels of health and burden in unpaid caregivers of patients with end-stage renal disease receiving hemodialysis therapy. *Nephrology Nursing Journal*, *45*(4), 373-379.
- Al Nazly, E., & Ahmad, M. (2014). Hemodialysis: Stressors and coping strategies. *Psychology, Health & Medicine*, *20*(4), 477-487.
- Baldree, K., Murphy, S., & Powers, M. (1982). Stress identification and coping patterns in patients on hemodialysis. *Nursing Research*, *31*(2), 107-112.
- Bertolin, D., Pace, A., Kusumota, L., & Haas, V. (2011). An association between forms of coping and the socio demographic variables of people on chronic hemodialysis. *Revista da Escola de Enfermagem da USP*, *45*(5). Retrieved from [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0080-62342011000500006&lng=en&nrm=iso&tlng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-62342011000500006&lng=en&nrm=iso&tlng=en)
- Bolton, W., & Owen, W. (2002). Preparing the patient for renal replacement therapy. Teamwork optimizes outcomes. *Post Graduate Medicine*, *111*(6), 97-108.
- Churchill, D., Blake, P., Jindal, K., Toffelmire, E., & Goldstein, M. (1999). Clinical practice guidelines for initiation of dialysis. *Journal of the American Society of Nephrology*, *10*(Suppl. 13), S289-S321.

- Dang, T., Lai, F., & Lin, Y. (2016). Psychometric evaluation of the Vietnamese Hemodialysis Stressor Scale. *Clinical Nursing Research*, 27(3), 364-385.
- De Sousa, A. (2008). Psychiatric issues in renal failure and dialysis. *Indian Journal of Nephrology*, 18(2), 47-50. doi:10.4103/0971-4065.42337
- Feely, M. A., Albright, R. C., Thorsteinsdottir, A. H., Moss, A. H., & Swetz, K. M. (2014). Ethical challenges with hemodialysis patients who lack decision-making capacity: behavioral issues, surrogate decision-makers, and end-of-life situations *International Society of Nephrology*, 86, 475–480.
- Folkman, S., Lazarus, R., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping and encounter outcomes. *Journal of Personality and Social Psychology*, 50(5), 992-1003.
- Gerogianni, G. K. B., & Babatsikou, F. (2013). Identification of stress in chronic haemodialysis. *Health Sciences Journal*, 7(2), 169-176a.
- Goldstein, M., Yass, T., Dacouris, N., & McFarlane, P. (2004). Multidisciplinary predialysis care and morbidity and mortality of patients on dialysis. *American Journal of Kidney Diseases*, 44(4), 706-714.
- Gurklis, J., & Menke, E. (1988). Identification of stressors and use of coping methods in chronic hemodialysis patients. *Nursing Research*, 37(4), 236-239, 248.
- Harwood, L., Wilson, B., & Locking-Cusolito, H. (2009). Stressors and coping in individuals with chronic kidney disease *Nephrology Nursing Journal*, 36(3), 265-276.

- Jalowiec, A. (1995). *Psychometric results on the 1987 Jalowiec Coping Scale* (Unpublished supplementary materials). Loyola University of Chicago, Westmont, IL
- Jungers, P., Massy, Z. A., Nguyen-Khoa, T., Choukroun, G., Robino, C., Fakhouri, F., ... Grünfeld, J. P. (2001). Longer duration of predialysis nephrological care is associated with improved long-term survival of dialysis patients. *Nephrology Dialysis Transplantation*, *16*(12), 2357-2364.
- Kidachi, R., Kikuchi, A., Nishizawa, Y., Hiruma, T., & Kaneko, S. (2007). Personality types and coping style in hemodialysis patients. *Psychiatry Clinical Neurosciences*, *61*(4), 339-347. doi:10.1111/j.1440-1819.2007.01716.x
- Kidney Disease: Improving Global Outcomes. (2017). KDIGO 2017 clinical practice guideline update for the diagnosis, evaluation, prevention, and treatment of chronic kidney disease–mineral and bone disorder (CKD-MBD). *Kidney International*, *7*(1), Supplement 1-60.
- Kinchen, K., Sadler, J., Fink, N., Brookmeyer, R., Klag, M., Levey, A., ... Powe, N. R. (2002). The timing of specialist evaluation in chronic kidney disease and mortality. *Annals of Internal Medicine*, *137*(6), 479-486.
- Klang, B., Bjorvell, H., & Cronquist, A. (1996). Patients with chronic renal failure and their ability to cope. *Scandinavian Journal of Caring Science*, *10*(2), 89-95.
- Korevaar, J., Jansen, M., Dekker, F., Boeschoten, E., Bossuyt, P., & Krediet, R. (2002). Evaluation of DOQI guidelines: Early start of dialysis treatment is not associated with better health related quality of life. *American Journal of Kidney Diseases*, *39*(1), 108-115.



- Lazarus, R., & Folkman, S. (1984). *Stress appraisal and coping*. New York: Springer Publishing Company.
- Levin, A. (2000). Consequences of late referral on patient outcomes. *Nephrology Dialysis Transplantation*, 15(Suppl. 3), 8-13.
- Levin, A., Hemmelgarn, B., Culeton, B., Tobe, S., McFarlane, P., Ruzicka, M., ... Canadian Society of Nephrology. (2008). Guidelines for the management of chronic kidney disease. *Canadian Medical Association Journal*, 17(11), 1154-1162.
- Logan, S., Pelletier-Hibbert, M., & Hodgins, M. (2006). Stressors and coping of in-hospital hemodialysis patients aged 65 years and over. *Journal of Advanced Nursing*, 56(4), 382-391.
- Lok, P. (1996). Stressors, coping mechanisms quality of life among dialysis patients in Australia. *Journal of Advanced Nursing*, 23(5), 373-381.
- McLaughlin, K., Manns, B., Culeton, B., Donaldson, C., & Taub, K. (2001). An economic evaluation of early versus late referral of patients with progressive renal insufficiency. *American Journal of Kidney Diseases*, 38(5), 1122-1128.
- Mok, E., Lai, C., & Zhang, Z. (2004). Coping with chronic renal failure in Hong Kong. *International Journal of Nursing Studies*, 41(2), 205-213
- Mok, E., & Tam, B. (2000). Stressors and coping methods among chronic haemodialysis patients in Hong Kong. *Journal of Clinical Nursing*, 10, 503-511.
- National Kidney Foundation. (2002a). K/DOQI clinical practice guidelines on chronic kidney disease. *American Journal of Kidney Diseases*, 39(2, Suppl 1), S14-S16.

- National Kidney Foundation.(2002b). K/DOQI clinical practiceguidelines for chronic kidney disease:evaluation, classification and stratification. *American Journal of Kidney Disease*, 39(2, Suppl 1), S1-S266.
- Nguyễn, B., & Hoa, V. (2015). Mortality in dialysis patients: analysis of the causes of death at Thong Nhat Hospital, *Ho Chi Minh City Journal*, 19(4), 367-373.
- Nguyễn, L., & Hương, T. (2012). Using the SF 36 Questionnaire for evaluation quality of life in pre- post dialysis, *Ho Chi Minh City Journal*, 16(3), 335-341.
- Parvan, K., Hasankhani, H., Seyyedrasooli, A., Riahi, S., & Ghorbani, M. (2015). The effect of two educational methods on knowledge and adherence to treatment in hemodialysis patients: Clinical trial. *Journal of Caring Science*, 4(1), 83-93.
- Pereira, B. J. (2000). Optimization of pre-ESRD care: The key to improved dialysis outcomes. *Kidney International*, 57(1), 351-365.
- Roubicek, C., Brunet, P., Huiart, L., Thirion, X., Leonetti, F., Dussol, B., ... Berland, Y. (2000). Timing of nephrology referral: Influence on mortality and morbidity. *American Journal of Kidney Diseases*, 36(1), 35-41.
- Schmidt, R., Domico, J., Sorkin, M., & Hobbs, G. (1998). Early referral and its impact on emergent first dialyses, healthcare costs and outcome. *American Journal of Kidney Diseases*,32(2), 278-283.
- Tu, H., Shao, J., Wu, F., Chen, S., & Chuang, Y. (2013). Stressors and coping strategies of 20-45-year-old hemodialysis patients. *Collegian*, 21(3), 185-192.
- U.S. Renal Data System. (2018). *USRDS annual data report*. Bethesda, MD: National Institutes of Health,National Institute of Diabetes and Digestive and KidneyDiseases.

Yeh, S., & Chou, H. (2007). Coping strategies and stressors in patients with hemodialysis. *Psychosomatic Medicine*, 69(2), 182-190.

**APPENDIX A**  
**INSTITUTIONAL REVIEW BOARD APPROVAL**



*Institutional Review Board*

DATE: August 5, 2019

TO: Linh Nguyen  
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [1446878-2] Stressors and Coping Styles among Chronic Hemodialysis Patients in Viet Nam

SUBMISSION TYPE: New Project

ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS

DECISION DATE: August 5, 2019

EXPIRATION DATE: August 5, 2023

Thank you for your submission of New Project materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

We will retain a copy of this correspondence within our records for a duration of 4 years. If you have any questions, please contact Nicole Morse at 970-351-1910 or [nicole.morse@unco.edu](mailto:nicole.morse@unco.edu). Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

**APPENDIX B**

**INFORMED CONSENT FOR PARTICIPATION  
IN HUMAN SUBJECTS RESEARCH:  
ENGLISH AND VIETNAMESE**



Institutional Review Board

**INFORMED CONSENT FOR PARTICIPATION  
IN HUMAN SUBJECTS RESEARCH**

**Project Title:** Stressors and coping styles among chronic hemodialysis patients in Viet Nam

**Student Researcher:** Nguyen Thi Ngoc Linh

**Research Advisor:** Darcy Copeland PhD, RN

**Purpose:** The aim of this study is to determine the stressors and coping styles among hemodialysis patients in Viet Nam.

**Objective:** This project seeks to

- Identify the major stressors among patients on hemodialysis
- Determine coping styles used by HD patients in Viet Nam
- Determine the relationship between demographics, stressors and coping styles among patients on hemodialysis

All responses will be kept confidential and anonymous. All questionnaires will be scanned into a password protected computer and then “shredded” (permanently destroyed). All study data and information will then be kept on a password protected thumb drive in a locked drawer in a locked office. There are no anticipated risks associated with participation in this survey. If you complete and return the attached questionnaire, it will indicate that you consent to participate in this study. You may keep this form for future reference.

If you agree to participate in this study you will be asked to complete the attached 92 question survey. It should take you 5-10 minutes to complete.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled.

Having read the above and having had an opportunity to ask any questions, please complete the questionnaire on the next page if you would like to participate in this research. A copy of this form will be given to you to retain for future reference. If you have any concerns about your selection or treatment as a research participant, please

contact the Research Compliance Manager, Office of Research and Sponsored Programs, Kepner Hall, University of Northern Colorado, Greeley, CO 80369, 970-351-1910. Please give the completed questionnaire to the researcher who gave you the form.

**Contact information:**

Student Researcher: Nguyen Thi Ngoc Linh, Master's -student  
Research Advisor: Darcy Copeland PhD, RN, School of Nursing  
Email: darcy.copeland@unco.edu  
Phone: : 970-351-1930





Institutional Review Board

## THÔNG TIN ĐỒNG Ý THAM GIA NGHIÊN CỨU TRÊN ĐỐI TƯỢNG CON NGƯỜI

**Tên đề tài:** Mức độ căng thẳng và phong cách đối phó của bệnh nhân chạy thận nhân tạo mãn tính tại Việt Nam

**Student Researcher:** Nguyen Thi Ngọc Linh

**Research Advisor:** Darcy, Copeland PhD, APRN, CNM, School of Nursing

**Mục đích:** Mục đích của đề tài này nhằm khảo sát mức độ căng thẳng và phong cách đối phó của bệnh nhân chạy thận nhân tạo mãn tính tại Việt Nam

**Mục tiêu:** Đề tài được xây dựng để

- Đánh giá các yếu tố gây căng thẳng và phong cách đối phó của bệnh nhân chạy thận nhân tạo mãn tính tại Việt Nam
- Xác định các mối quan hệ giữa các yếu tố gây căng thẳng liên quan đến điều trị
- Xác định mối quan hệ giữa yếu tố gây căng thẳng, phong cách đối phó và thời gian chạy thận nhân tạo.
- Tất cả các câu trả lời sẽ được giữ bí mật và ẩn danh. Tất cả các câu hỏi sẽ được quét vào máy tính được bảo vệ bằng mật khẩu và sau đó bị cắt vụn (hủy vĩnh viễn). Tất cả dữ liệu và thông tin nghiên cứu sẽ được lưu giữ trên ổ đĩa được cất vào ngăn kéo trong tủ có khóa. Không có rủi ro nào dự đoán cho việc tham gia khảo sát này. Nếu bạn hoàn thành khảo sát, được xem như là bạn đồng ý tham gia. Bạn có thể giữ lại mẫu thông tin này để tham khảo cho tương lai.

Nếu bạn đồng ý tham gia vào nghiên cứu này, bạn sẽ được yêu cầu hoàn thành bản khảo sát 92 câu hỏi đính kèm. Bạn sẽ mất 5-10 phút để hoàn thành.

Việc tham gia là tự nguyện. Bạn có thể quyết định không tham gia nghiên cứu này và nếu bạn bắt đầu tham gia, bạn vẫn có thể dừng và rời đi vào bất cứ thời điểm nào. Sự quyết định của bạn luôn được tôn trọng và không ảnh hưởng đến quyền lợi mà bạn đang có.

Vui lòng đọc và có thể hỏi bất kỳ câu hỏi nào, ký tên dưới đây nếu bạn tham gia vào nghiên cứu này. Một bản sao của giấy này sẽ được gửi bạn giữ tham khảo cho tương lai. Nếu bạn có bất kỳ mối quan tâm cho việc chọn lựa hay điều trị như một người tham gia nghiên cứu, vui lòng liên hệ Cơ Quan Nghiên Cứu, Kepner Hall, Trường Đại Học Northern Colorado Greeley, CO 80639; 970-351-1910.

Vui lòng cho thông tin đồng ý này và hoàn thành bảng câu hỏi nghiên cứu (người đưa bạn mẫu thông tin này)

**Thông tin liên lạc của hội đồng:**

Sinh viên nghiên cứu: Nguyen Thi Ngọc Linh, sinh viên lớp Thạc sĩ

Cố vấn nghiên cứu: Darcy.Copeland, Tiến sĩ, APRN, CNM, School of Nursing

Email: darcy.copeland@unco.edu

Điện thoại: 970-351-1930

**APPENDIX C**  
**STUDY QUESTIONNAIRE IN ENGLISH**  
**AND VIETNAMESE**



Institutional Review Board

**STUDY QUESTIONNAIRE**

**MASTER'S THESIS TITLE: STRESSORS AND COPING STYLES AMONG CHRONIC HEMODIALYSIS PATIENT IN VIET NAM**

**PART I: Demographics:**

Age:

Gender: Female  or Male

Length of time you have been receiving dialysis treatment:

**PART II**

**A: HEMODIALYSIS STRESSORS SCALE**

People view dialysis treatment in many ways, some people find parts of the treatment bothersome other does not. Listed below are things that some hemodialysis patients are bothered by. I want to know to what extent you have been bothered by each of these during the last two weeks. For each item, please indicate the response that best describes your experience.

	Not at All (0)	Slightly (1)	Moderately (2)	A great Deal (3)
1.Arterial &venous stick				
2.Nausea &vomiting				
3. Muscle cramps/soreness				
4. Itching				
5.Lenght of treatment				
6.Stiffening of joints				
7.Feeling tired				
8.Loss of body function				
9. Decrease in social life				
10.Limitation of food				
11. Limitation of fluid				
12. Interference with job				
13. Decrease in sexual drive				
14.Limitation of physical activities				
15. Sleep disturbances				
16. Changes in family responsibilities				
17. Reversal in family role with spouse				

18. Reversal in family roles with the children				
19. Uncertainly about future				
20. Change in body appearance				
21. Limited in styles of clothing				
22. Cost of treatment /transportation to treatment/or other cost factors.				
23. Transportation to and from the unit				
24. Limits on time and place for vacations.				
25. Frequent hospital admissions				
26. Dialysis machine and/ or equipment				
27. Dependency on nurses and technicians				
28. Dependency on physicians				
29. Fear of being alone				
30. Feeling related to treatment (example: feeling cold).				
31. Boredom				
32. Decreased ability to have children				



7. Tried to get away from the problem for a while								
8. Got mad and let off steam								
9. Expected the worst that could happen								
10. Tried to put the problem out of your mind and think of something else								
12. Accepted the situation because very little could be done								
13. Tried to look at the problem objectively and see all sides								
14. Daydream about a better life								
15. Talked the problem over with a professional person (such as a doctor,								

nurse, minister, teacher, counselor)								
16. Tried to keep the situation under control								
17. Prayed or put your trust in God								
18. Tried to get out of the situation								
19. Kept your feelings to yourself								
20. Told yourself that the problem was someone else's fault								
21. Waited to see what would happen								
22. Wanted to be alone to think things out								
23. Resigned yourself to the situation because things looked hopeless								



24. Took out your tensions on someone else								
25. Tried to change the situation								
26. Used relaxation techniques								
27. Tried to find out more about the problem								
28. Slept more than usual								
29. Tried to handle things one step at a time								
30. Tried to keep your life as normal as possible and not let the problem interfere								
31. Thought about how you had handled other problems in the past.								
32. Told yourself not to worry because								

everything would work out fine								
33. Tried to work out a compromise								
34. Took a drink to make yourself feel better								
35. Let time take care of the problem								
36. Tried to distract yourself by doing something that you enjoy								
37. Told yourself that you could handle anything no matter how hard								
38. Set up a plan of action								
39. Tried to keep a sense of humor								
40. Put off facing up to the problem								

41. Tried to keep your feelings under control								
42. Talked the problem over with someone who had been in a similar situation								
43. Practice in your mind what had to be done								
44. Tried to keep busy								
45. Learned something new in order to deal with the problem better								
46. Did something impulsive or risky that you would not usually do								
47. Thought about the good things in your life								
48. Tried to ignore or avoid the problem								

49. Compared yourself with other people who were in the same situation								
50. Try to think positively								
51. Blamed yourself for getting into such a situation								
52. Preferred to work things out yourself								
53. Took medication s to reduce tension								
54. Tried to see the good side of the situation								
55. Told yourself that this problem was really not that important								
56. Avoided being with people								
57. Tried to improve yourself in some way so you								

could handle the situation better								
58. Wished that the problem would go away								
59. Depended on others to help you out								
60. Told yourself that you were just having some bad luck								



Institutional Review Board

**BỘ CÂU HỎI SỬ DỤNG NGHIÊN CỨU**

**ĐỀ TÀI NGHIÊN CỨU: KHẢO SÁT MỨC ĐỘ CĂNG THẲNG VÀ PHONG CÁCH ĐỐI PHÓ CỦA BỆNH NHÂN CHẠY THẬN NHÂN TẠO MÃN TÍNH TẠI VIỆT NAM.**

**PHẦN I: THÔNG TIN CÁ NHÂN**

Vui lòng điền vào chỗ trống dưới đây:

Tuổi:

Giới tính: Nữ  hoặc Nam

Thời gian đã chạy thận:

**PHẦN II- BẢNG CÂU HỎI (PHẦN A + PHẦN B)**

**PHẦN A: KHẢO SÁT MỨC ĐỘ CĂNG THẲNG CỦA BỆNH NHÂN CHẠY THẬN NHÂN TẠO.**

Người bệnh chạy thận tiếp cận điều trị bằng nhiều cách khác nhau, có một số người bệnh hiểu được phần nào đó của điều trị, một số khác thì không. Trong bộ câu hỏi dưới đây, tôi sẽ liệt kê một số nội dung mà người bệnh chạy thận sẽ cảm thấy mình lo lắng trong các vấn đề điều trị chạy thận, trong đó sẽ có 4 câu trả lời cụ thể vì nó sẽ diễn tả những gì bạn trải qua hay được mô tả trong những lần bạn nhận được điều trị chạy thận nhân tạo. Tôi sẽ đọc từng nội dung câu hỏi và chờ câu trả lời của bạn.

Yếu tố gây stress trong chạy thận nhân tạo	Không có (0)	Ít khi (1)	Vừa phải (2)	Nhiều (3)
1. Tiêm chích động tĩnh mạch				
2. Buồn nôn & Nôn				
3. Vọp bẻ/ nhức mỏi				
4. Ngứa				
5. Thời gian điều trị				
6. Cứng khớp				
7. Cảm thấy mệt mỏi				
8. Mất chức năng cơ thể				
9. Giảm đời sống xã hội				
10. Giới hạn thức ăn				
11. Giới hạn đồ uống hoặc thức ăn lỏng				
12. Cản trở công việc				
13. Giảm khả năng tình dục				
14. Giới hạn hoạt động thể chất				
15. Rối loạn giấc ngủ				
16. Thay đổi trách nhiệm gia đình				

17. Đảo ngược vai trò gia đình với vợ/ chồng				
18. Đảo ngược vai trò gia đình với con cái				
19. Không chắc chắn về tương lai				
20. Những thay đổi về ngoại hình cơ thể				
21. Bị hạn chế trong phong cách ăn mặc của quần áo				
22. Chi phí điều trị / vận chuyển đến nơi điều trị / hoặc các yếu tố chi phí khác				
23. Vận chuyển đến và rời khỏi đơn vị lọc máu				
24. Giới hạn về thời gian và địa điểm cho kỳ nghỉ				
25. Nhập viện thường xuyên				
26. Máy và / hoặc thiết bị lọc máu				
27. Phụ thuộc vào điều dưỡng và kỹ thuật viên				
28. Phụ thuộc vào bác sĩ				
29. Sợ bị cô đơn				
30. Cảm giác liên quan đến điều trị (ví dụ: cảm thấy lạnh, mệt mỏi ...)				
31. Chán nản				
32. Giảm khả năng có con				





10.Cố gắng không nghĩ đến vấn đề đó và suy nghĩ về việc khác								
11.Nói chuyện với gia đình hoặc bạn bè về vấn đề đó								
12.Chấp nhận hoàn cảnh vì có rất ít việc có thể thực hiện được								
13.Cố gắng nhìn mọi mặt của vấn đề một cách khách quan								
14.Ước mơ về một cuộc sống tốt đẹp hơn								
15.Nói vấn đề với một chuyên gia (ví dụ: bác sĩ, điều dưỡng, mục sư, giáo viên, chuyên gia tư vấn)								
16.Cố gắng giữ vấn đề trong tầm kiểm soát								
17.Cầu nguyện hoặc đặt niềm tin ở Trời								
18.Cố gắng trốn tránh vấn đề								
19.Giữ cảm xúc trong lòng								
20.Tự nhủ rằng vấn đề là do lỗi của một ai khác mà ra								
21.Chờ đợi xem điều gì sẽ xảy ra								
22.Muốn một mình để suy nghĩ								

23. Cam chịu với vấn đề bởi vì mọi chuyện trở nên vô vọng								
24. Trút giận lên ai đó								
25. Cố gắng thay đổi hoàn cảnh								
26. Sử dụng các biện pháp để thư giãn								
27. Cố gắng tìm hiểu sâu hơn về vấn đề								
28. Ngủ nhiều hơn bình thường								
29. Cố gắng giải quyết vấn đề từng bước một								
30. Cố gắng giữ cuộc sống của bạn một cách bình thường nhất có thể và không cho vấn đề ảnh hưởng đến cuộc sống								
31. Suy nghĩ về những cách mà bạn đã giải quyết các vấn đề khác trong quá khứ								
32. Tự nhủ bản thân không nên lo lắng bởi vì mọi việc sẽ ổn thôi								
33. Cố gắng để làm ra một sự thỏa hiệp								
34. Uống rượu bia để cho bản thân cảm thấy đỡ hơn								
35. Để thời gian giải quyết vấn đề								

36.Cố gắng chi phối bản thân bằng cách làm một vài việc mà bạn thích								
37.Tự nhủ rằng bạn có thể giải quyết bất cứ vấn đề bất kể nó khó đến mấy								
38.Lên kế hoạch để giải quyết vấn đề								
39.Cố gắng giữ sự vui vẻ								
40.Lãng tránh việc phải đối mặt với vấn đề								
41.Cố gắng giữ cảm xúc trong tầm kiểm soát								
42.Nói vấn đề với một ai đó đã gặp hoàn cảnh tương tự								
43.Tập suy nghĩ trong đầu về những việc phải làm								
44.Cố gắng làm cho bản thân bận rộn								
45.Học hỏi một việc gì mới để giải quyết vấn đề tốt hơn								
46.Làm một việc gì đó bóc đồng hoặc mạo hiểm mà bạn không thường làm								
47.Suy nghĩ về những điều tốt đẹp trong cuộc sống của bạn								

48.Cố gắng không quan tâm hoặc lảng tránh vấn đề								
49.So sánh bản thân với những người từng có cùng hoàn cảnh								
50.Cố gắng suy nghĩ tích cực								
51.Đổ lỗi cho bản thân đã gặp hoàn cảnh như vậy								
52.Muốn tự bản thân giải quyết vấn đề								
53.Uống thuốc để giảm bớt sự căng thẳng								
54.Cố gắng nhìn vào mặt tốt của vấn đề								
55.Tự nhủ bản thân rằng vấn đề này thật sự không quan trọng								
56.Lảng tránh mọi người xung quanh								
57.Cố gắng tìm cách hoàn thiện bản thân để bạn có thể giải quyết vấn đề tốt hơn								
58.Ước muốn vấn đề sẽ biến mất								
59.Dựa vào người khác để giúp đỡ bạn								
60.Tự nhủ bản thân rằng bạn chỉ đang không gặp may mắn								

**APPENDIX D**

**PERMISSION LETTER TO USE HEMODIALYSIS  
STRESSOR SCALE**

LN | Linh, Nguyen <nguy7744@bears.unco.edu> | cachua1982@gmail.com | 3 | 16/05/2019

**Fw: Permission Letter to use Hemodialysis Stressor Scale (HSS) questionnaire**

Hemodialysis Stressor Scale.pdf  
.pdf File

Hemodialysis Stressor Scale scoring.pdf  
.pdf File

Bihi MA.pdf  
.pdf File

---

**From:** Ferrans, Carol J <cferrans@uic.edu>  
**Sent:** Tuesday, April 23, 2019 11:37 AM  
**To:** Linh, Nguyen  
**Cc:** Nguyen Thi Ngoc Linh  
**Subject:** RE: Permission Letter to use Hemodialysis Stressor Scale (HSS) questionnaire

Dear Nguyen Linh,  
Thank you for your email and your interest in our work.

I've attached the Hemodialysis Stressor Scale for you, as well as a file marking which items are used for the subscales. I've also attached an article that describes the instrument and scoring. You have my permission to use the instrument; there is no charge for this permission.

I wish you all success with your work.

Sincerely,






Carol Estwing Ferrans, PhD, RN, FAAN  
Harriet H. Werley Endowed Chair in Nursing Research,  
Professor, Biobehavioral Health Science,  
University of Illinois at Chicago

**APPENDIX E**  
**PERMISSION LETTER TO USE JALOWEC SCALE**

---

LN Linh, Nguyen <nguy7744@bears.unco.edu> cachua1982@gmail.com  
Fw: Approving in using JCS Questionnaire;

---

 JCS.PDF .PDF File	 JCS DESCRIPTION.PDF .PDF File	 JCS SUBSCALES.PDF .PDF File	 JCS SCORING.PDF .PDF File	 JCS REL AND VAL.PDF .PDF File
--	--	--	--	--

---

Sent: Tuesday, April 30, 2019 8:32 PM  
To: Linh, Nguyen  
Subject: Re: Approving in using JCS Questionnaire;

TUESDAY 4-30-2019

DEAR MS NGUYEN:

THE \$75 JCS CHECK FROM YOUR BROTHER JUST ARRIVED TODAY.

ATTACHED IS THE JCS PACKET AS 5 PDF FILES.

PERMISSION IS GRANTED TO USE THE JCS FOR YOUR THESIS STUDY.

GOOD LUCK WITH YOUR RESEARCH!

DR ANNE JALOWIEC

On Tuesday, April 30, 2019, 12:43:54 AM MDT, Linh, Nguyen <nguy7744@bears.unco.edu> wrote:



**APPENDIX F**

PERMISSION LETTER TO COLLECT DATA AT CHO RAY HOSPITAL

SOCIAL REPUBLIC OF VIETNAM  
Independence - Freedom – Happiness

Ho Chi Minh City, 2019

**PERMISSION LETTER TO CONDUCT SURVEY  
AT HEMODIALYSIS DEPARTMENT IN CHO RAY HOPITAL**

**Dear: Professor Nguyen Van Khol - Acting Director of Cho Ray Hospital  
PhD, Doctor Nguyen Minh Tuan- Head of Hemodialysis Department**

My name is Nguyen Thi Ngoc Linh currently working at the Hemodialysis Department, City International Hospital.

I am currently studying at the Northern Colorado University Master of Nursing course in cooperation with Hong Bang International University, for the period of 2 years from 2017 to 2019.

At the request of the training program, I carried out the research topic *"Stressors and Coping Styles among chronic hemodialysis at Cho Ray Hospital's Hemodialysis Department"*. Therefore, I would like to ask your permission to allow me to collect data and conduct patient surveys at the Hemodialysis Department of the Hospital.

I pledge to use only the information and data collected in the research objectives and strictly follow the Hospital's regulations in conducting scientific research.

I am looking forward to the Director of Cho Ray Hospital and the Head of Hemodialysis Department for approval.

Your approval to conduct this study will be greatly appreciated. Thank you in advance for your interest and assistance with this research

Sincerely,

Principal Investigators

Linh, Nguyen, R.N

Master of Nursing

Northern Colorado University

Approved by:

**Head of Hemodialysis Dept.**



Nguyễn Minh Tuấn

**Acting Director of Cho Ray Hospital**

PHÓ GIÁM ĐỐC PHỤ TRÁCH QUẢN LÝ, ĐIỀU HÀNH BỆNH VIỆN



Nguyễn Văn Khol