Coping Strategies and Perceived Quality of Life in the Chronically Ill

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To the faculty of Washington State University:

The members of the Committee appointed to examine the clinical research project of Lucinda Connery find it satisfactory and recommend that it be accepted.

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COPING STRATEGIES AND PERCEIVED QUALITY OF LIFE
IN THE
CHRONICALLY ILL

ABSTRACT

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Chronic illnesses are extremely prevalent in the modern world. More than 90 million Americans live with one or more chronic diseases, accounting for two-thirds of all health care costs and 70% of all deaths in the United States (Rice, 2000). While medical advances provide a longer life for many, the chronically ill maybe having longer lives while having an ongoing, but generally incurable, disease process. Coping strategies enable the chronically ill to deal with stressors. Effective coping strategies can improve the quality of life in those persons with chronic illnesses. Most studies of chronic illness and the quality of life examine a single disease process. This study seeks to identify effective coping strategies and the perceived quality of life in persons who suffer from six different chronic illnesses. The nursing profession will be able to utilize the information gained from this study in assessing patient coping styles, providing patient education and advocacy regarding effective coping, and in tailoring interventions designed to meet specific patient needs.
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CHAPTER ONE

Introduction

Chronic diseases are extremely prevalent in the modern world. More than 90 million Americans live with chronic disease, accounting for two-thirds of all health care costs and 70% of all deaths in the United States (Rice, 2000). Of older adults in the United States, 86% have one or more chronic illnesses (Potter & Zausniewski, 2000). A chronic illness is any disease process for which a cure is currently impossible, and death is a distant eventuality (Murdaugh, 1998). Persons with chronic illnesses often struggle with a decrease in their quality of life, a concomitant decrease in their overall functionality, and an increase in attempts to cope with a life which has often been prolonged.

People can live with chronic illness through effective coping. Coping is seen as the individual’s attempt to remove stress and restore physical and emotional equilibrium (Lazarus & Monat, 1977). Coping efforts have been proposed as one means of accounting for the differences in adaptation or adjustment to a chronic illness (Courts & Boyette, 1998). Positive and adaptive coping mechanisms can assist individuals in managing perceived threats and challenges and in gaining a sense of control over their disease.

Coping effectiveness is conceptionally defined as the degree to which coping influences a person’s well-being and function. Lazarus (1997) describes coping as cognitive and behavioral efforts in managing specific external and/or internal demands that are appraised as taxing or as exceeding the resources of the person.

The purpose of this study is to explore and identify effective coping skills used by persons with differing chronic illnesses, as well as to determine any similarities in effective coping behaviors used by study participants.
Quality of Life

Quality of life is a subjective evaluation of one's life in multiple domains (Martin & Stockler, 1998). Domains that are generally measured by the most common quality of life instruments include health and functional ability; psychological, spiritual and financial well-being; and family or relationships (Ferrans, 1996). Furthermore, quality of life is recognized as a primary medical outcome in addition to the more traditional outcomes of morbidity and mortality (Bausell, 1998). Interest in quality of life as a health concept has occurred because of the increased incidence of chronic illnesses (Murdaugh, 1998). Qualitative studies indicate that health-related quality of life issues in those with chronic illnesses include adaptation, uncertainty, self-care, and meaning (Murdaugh).

Statement of the Problem

Patients with chronic illnesses struggle with a disease process for which there is no cure. They develop strategies for coping with their specific illness. Studies have explored the coping skills used by these patients, but most often such studies explore the coping used by persons with only one specific chronic illness. There is a knowledge gap in information that explores the similarities of effective coping methods used across the spectrum of chronic illness. This study hopes to bridge that gap by studying the coping strategies of persons with six different types of chronic illness, and by identifying which coping strategies are effective and which are not, and the relationship of the coping strategy to perceived quality of life.

Statement of the Purpose

The purpose of this study is to examine if there is a relationship between coping strategies and perceived quality of life in persons with chronic illnesses, as well as to determine any similarities in effective coping behaviors used by study participants.
Conceptual Framework

Development of a Framework

The framework used in this study is Roy’s Adaptation Model (Roy, 1976). This model states that an event which confronts a person’s integrity causes that person to adapt to that event. This model was developed by Roy in order to explain the nature of the nursing process and the relationship between patients, nurses, and coping, or adapting, to changes in health status.

Roy saw holistic persons as biopsychosocial beings in constant interaction with a changing environment, with health and illness as one dimension in life; the nature of one’s interaction with the internal and external environment may be seen as a response to changes in the environment directed toward the maintenance of biopsychosocial integrity (Fitzpatrick, Whall, Johnston & Floyd, 1982) Adaptation in response to focal, contextual, and residual stimuli determines an adaptation response in four modes: physiologic, self-concept, role function, and interdependence (Roy, 1976). Finally, Roy postulated that a maladaptive response to stimuli was due to an increase in stimuli beyond the person’s ability to adapt (Fitzpatrick, et al.). In this study, persons with one or more chronic illnesses adapt by utilizing coping strategies, some more effective than others. Effective coping strategies may be seen as those that increase the perceived quality of life, while less effective coping strategies lead to greater maladaptation to the chronic illness, and a decrease in the quality of life.

Concepts in the Theory

The conceptual map presented for this study indicates the similarities, differences, and choices in coping mechanisms utilized by people with a variety of chronic illnesses. Some coping mechanisms are adaptive and effective, resulting in equilibrium, if not an increase in the sense of well-being or perceived quality of life. Other coping mechanisms are not
adaptive, resulting in a decreased sense of well-being or perceived quality of life, and an
increase in perceived stress (Clark, 2003). Finally, a coping mechanism such as denial may be
a transitional way of coping and may progress in either direction on the continuum of coping,
in terms of effectiveness (Davidhizar & Giger, 1998).

Some of the effective coping strategies used by people with rheumatoid arthritis
include spirituality, self-reliance, resourcefulness and positive thinking (Potter &
Zauszniewski, 2000). Neill (2000) and Murdaugh (1998) find similarities in that both studies
identify mourning loss and transcendence as effective coping strategies, while Murdaugh’s
study of HIV+ patients included informational and social support, as well as exercise, as
significant coping mechanisms (Murdaugh, 1998). Participants in Reynaud’s study (2002) of
coping and quality of life in persons with ostomies secondary to a disease process (cancer or
ulcerative colitis) identified social and family support as key coping mechanisms, along with
spirituality. Courts & Boyette (1998) identified informational and family support as effective
coping strategies in persons with end-stage renal disease (ESRD).

Conversely, anxiety and depression, indicators of less effective coping, are prevalent
in the chronically ill population (Courts & Boyette, 1998). Murdaugh identified fatalism and
substance abuse as less effective coping in persons with HIV+ status (Murdaugh, 1998).
Emotional eating, crying, and denial, further examples of less effective coping strategies, have
been utilized by persons with HIV+ status and those with end-stage renal disease (Murdaugh,
Figure 1 Conceptual Map

Conceptual Map

Less Stress  Resilience  Well-being

Increased Perceived Quality of Life

Spirituality
Preserving Health Status  Informational Support  Self-Reliance
Exercise

Effective Coping Strategies
Social Support  Mourning Loss
Positive Thinking  Transcending Disease

Coronary Artery Disease (CAD)
Human Immunodeficiency Virus (HIV+)
Rheumatoid Arthritis (RA)
End-stage Renal Disease (ESRD)
Cancer / Ulcerative Colitis (C/UC)

Chronic Illness

Chronic Obstructive Pulmonary Disease (COPD)

Fatalism  Substance Abuse  Anxiety
Emotional Eating
Anger  Depression
Withdrawal  Denial  Crying

Ineffective Coping Strategies

Decreased Perceived Quality of Life
Increased Stress  Maladaptation
Failure to Thrive  Uncertainty
Literature Review

Please see Appendix A for a table of relevant literature on coping strategies and chronic illness. The research reviewed utilized a variety of research designs and methodologies to explore coping and chronic illness.

Frameworks Used

The frameworks typically used in the research of chronic illness include Roy’s Adaptation Model of Nursing (Roy, 1984). In this framework, the model used is based on a holistic approach to nursing, which assumes that a person is a biopsychosocial being in constant interaction with a changing environment. Another framework used in research on coping and chronic illness is Lazarus’ stress and coping model. In this model, Lazarus postulates that coping may be seen as the effort to manage stress (Lazarus & Monat, 1977). In yet another conceptual model, Seyle defines coping as adapting to a stressor; the stressor is the stimulus eliciting a need for adaptation, stress is the response (Seyle, 1980). Finally, the Neuman Systems Model (Neuman, 1972) envisions a “total person approach” to patient problems as the individual becomes subject to the impact of multiple stressors.

Synthesis of Existing Knowledge Base

Chronic illness is a significant and growing health care issue. A chronic illness is one that does not go away, that may cause functional or psychological disability, and that may or may not progress over time. Examples of chronic illness include AIDS/HIV, end-stage renal disease, and rheumatoid arthritis. The chance of getting a chronic illness increases with age and, in fact, many older persons have been diagnosed with more than one chronic illness (Loeb, Penrod, Falkenstem, Gueldner, & Poon, 2003).

People who are experiencing a chronic illness cope in varying ways. In this study, coping is explored in order to ascertain which coping methods were most effective, and if
there were similarities in coping methods even though the chronic disease varied. The relationship between coping strategies and quality of life is evaluated.

In a critique of six research reports on chronic illness and coping, certain patterns emerged. First, patients who had poor coping skills, or whose coping had become overwhelmed, were significantly more depressed and/or anxious (Courts & Boyette, 1998). Patients whose coping was adequate or who were able to access positive coping within themselves, utilized various methods. Significant among these were intact social support systems, optimism, self-reliance, and spirituality (Wu, Lee, Baig, & Witchakhum, 2001).

Interventions by nurses can facilitate positive coping through assessment and treatment of anxiety and/or depression when necessary. This can be accomplished by reinforcing positive coping, offering patient teaching in self-care and peer support programs, and by remaining accessible especially at times of disease exacerbation or progression (Thorenstein, 2002).

Although the research reports critiqued yielded the above information, external validity was compromised in at least two studies by small sample size (Courts & Boyette, 1998; Potter & Zauszniewski, 2000). In one study the sample size was adequate, but the study could be generalized only to individuals with similar demographics (Reynaud & Meeker, 2002). In another, conclusions were difficult to draw from the results of the study (Hildingh & Fridlund, 2001). Study limitations in one report precluded broad generalizations (Wu, et al., 2001).

**Summarization of Methodologies**

Methodologies used in previous research on coping and chronic illness include correlation, cross-sectional studies using a survey format, comparative descriptive design using a semi-structured interview, and exploratory descriptive design utilizing a convenience
sample of participants. The qualitative method using grounded theory was also used in previous research studies. The primary methodological limitations were those related to small sample size in the qualitative studies, limiting the ability to draw generalized conclusions.

Gaps in Knowledge Base

In studies on coping and chronic illness, one of the most obvious gaps in the knowledge base of previous research is that the studies seem to investigate coping only with one particular type of chronic illness. The research study “Coping Behaviors of Individuals with COPD” (Wu, et al., 2001), illustrates this limitation. The authors or researchers identify that coping strategies are useful for chronic illness in general and are not often addressed.

Current study and Gap in Knowledge Base

This study will address coping as an identifiable phenomenon in chronic illness by conducting a study of coping and several types of chronic illness, rather one specific illness. The relationship between coping strategies and quality of life is explored.

Research Questions

1. What are effective coping strategies for people with chronic illnesses?
2. What are less effective coping strategies for people with chronic illnesses?
3. Are there similarities in effective and ineffective coping strategies with differing chronic illnesses?
4. Is there a relationship between coping strategies and perceived quality of life in persons with chronic illnesses?
Demographic Variables

1. Age (in years)
2. Gender
3. Marital status
4. Education level (in years)
5. Income level
6. Ethnicity
7. Medical diagnosis
8. Year chronic condition diagnosed

Table 1 Demographic Variables

Definition of Terms

For the purposes of this study, coping strategies are defined as the individual’s attempt to remove stress and restore physical and emotional equilibrium (Lazarus & Monat, 1977). Types of coping strategies, such as social support, mourning loss, and depression, are measured by the Jalowiec Coping Scale (Jalowiec, Murphy & Powers, 1984). Effective coping strategies are those that lead to an increase in adaptation, resilience, and well-being, and a decrease in stress with an improved overall perceived quality of life. Ineffective coping strategies lead to a failure to thrive, uncertainty, maladaptation, increased stress, and a decrease in the overall perceived quality of life as illustrated on the Conceptual Map (figure 1).

Quality of Life may be seen as an individual’s subjective perspective about what makes life have value (Edland & Tantredi, 1985). Ferran’s Quality of Life Index is the measurement instrument used in this study (Ferran, 1990).
Significance for Nursing

Continuing advances in medicine mean that people who previously had a substantially foreshortened lifespan due to chronic illness may now be living many years longer. However, their illnesses may still not be curable. Such persons must learn to live with chronic conditions. Coping may involve lifestyle choices and changes, adherence to dietary and activity restrictions, and the instigation of elaborate medication protocols (Stubblefield, 2002). Coping with chronic illness necessitates developing strategies to maintain a good quality of life in the face of an increase in the challenges for doing so (Heckman, 2003).

Nurses need to assess patients with chronic illnesses for the identification of fears, concerns, and stressors (Tarkka, Paavilainen, Lehti, & Rstedt-Kurki, 2003). Nurses can provide patient education on disease management, as well as assist with the identification of ineffective coping mechanisms, and promote effective coping skills and stress management techniques (Burckhard & Hanestad, 2003).

This study has sought to provide information about which coping mechanisms are effective, thereby enhancing perceived quality of life, so that nursing interventions can be tailored to meet individual needs. Information from the study can also lend awareness of and appreciation for the effects of various kinds of coping strategies on health-seeking and health-promoting behavior. This, in turn, can facilitate the process of mutual goal setting in planning patient care and in motivating patients towards more effective coping (Stubblefield, 2002). The study seeks to be generalizable to other chronically ill populations, for example, the chronically mentally ill. Finally, information from this study advances nursing as a profession, since it guides both the patient and the nurse toward excellence in adaptation and coping as a basis for a better quality of life.
CHAPTER TWO

Method of Study / Type of Design

An exploratory descriptive design is being used in this study, since relationships between variables will be explored.

Threats to Internal Validity

Threats to internal validity of the proposed design include selection of the members of each illness group to be studied. Perhaps there are elements that are different between one group and another, even though groups have been demographically normalized. Morbidity and mortality represent another threat to internal validity, especially since members of each group are already ill. Ambiguity is another possible threat, since coping strategies may be interpreted in an ambiguous manner by some participants, but not by others. Finally, during the process of the study some members of a group may become either more or less ill, or be offered new treatment, which may affect the results.

Steps taken to minimize threats to internal validity include controlling the equivalence of subjects and groups by controlling sampling criteria. Morbidity and mortality of a group may be difficult to control for, but stabilization in the disease process is part of the criteria to be controlled for in the initial screening of study participants, although it can never be completely controlled. Hopefully, a large enough sample size will allow for the overall success of the study.

Setting for Study

Patients from clinics which specialize in the treatment of the specific disease process to be studied (for example, a dialysis clinic) will be asked if they would be interested in being part of the study. Their already-familiar Registered Nurses will be asking them to participate,
thus reducing anxiety where possible. If they agree, a cover letter, demographic questionnaire, and study questionnaire will be mailed to them with a stamped, self-addressed envelope. They may complete the study at home, thus decreasing subject burden.

Population and Sample

The population from which the sample will be drawn is that of adults (ages 25-75) who have one chronic disease process, defined as an incurable but ongoing disease which the person must have had for at least five years. The six chronic illnesses which have been included in this study include HIV+ status, chronic obstructive pulmonary disease (COPD), end-stage renal disease (on dialysis) (ESRD), rheumatoid arthritis (RA), use of an ostomy appliance secondary to a chronic disease process such as cancer or ulcerative colitis (C/UC), and coronary artery disease (CAD). These six diseases were chosen for study because they are representative of the chronic conditions which will require coping and adaptation.

The sample will be normalized for demographic variables (please see Appendix C), and for length of time since diagnosis of a chronic illness (must be five years or more).

Strengths and Weaknesses of Sampling Method

The proposed sample is large enough so that each of the six subsets will have a statistically meaningful sample size of n=30. The total sample size of n=180 should yield generalizable results with predictive capability.

A weakness of the sampling method is that the groups to be studied may or may not be similar enough to yield accurate results. There may be a fundamental difference between a group of people who have HIV+, for example, and another group that has ESRD. Also, one group may have a greater morbidity and/or mortality than another group. Finally, one group may have a more acute disease process than another group, thus skewing results.
Data Collection Tree

Enrollment and Questionnaire Procedure

Begin patient enrollment

R.N. to explain questionnaires to patients

Will patient participate in research process? —> No —> Stop

Yes

Does pt have chronic illness? —> Yes —> Are questionnaire requirements met? —> No —> Stop

Yes

Create pt file ID#

Begin questionnaire administration

Does pt need assistance? —> No —> Mail pt questionnaire

Mail pt questionnaire —> Yes —> Can family assist? —> Yes

No

Mail pt study and arrange for assistance —> Yes —> Is staff available to assist with questionnaire?

Is questionnaire completed and mailed back?

Are all answers completed? —> Yes

Data checked? —> No —> Contact pt to complete questionnaire

Code checked?

Yes

Enter data
Data Collection Procedure

The data will be collected and coded according to the following protocol: subject number code, subject illness type, and subject demographic data need to be coded on a data collection form. These items need to be checked for completion and accuracy before being entered into the SPSS software. The questionnaires will be scored and also entered on the SPSS software. A trained data entry person will be hired to do this part of the project. Data will be stored on floppy discs (Einspruch, 1998). Please see Appendix D for data collection form.

Administration and Scoring

Initially, a cover letter and consent form will be mailed to prospective study participants. Upon return of these items, participants will be selected for the study. Another cover letter and the study questionnaire, along with a No. 2 pencil, will be mailed to the participant.

Scoring will be done by factor analysis among four subscales. Each question in the Coping portion of the questionnaire will be scored from 1 to 5 ("never" to "almost always"), based on a Likert-type scale. Scoring will be on a 1 to 6 scale (from "very dissatisfied" to "very satisfied") for the Quality of Life portion of the questionnaire.

Strategies to decrease errors in management include using already well-known instruments such as the instruments chosen; using the Likert format for increased response options, and giving clear instructions as to how to fill out the questionnaire (i.e., choose one best answer only, etc.).
Instrumentation: Reliability and Validity

Description of Coping Scale

The Jalowiec Coping Scale, developed in 1979 by Ann Jalowiec, R.N, Ph.D., consists of forty coping behaviors culled from a comprehensive literature review. The forty behaviors are rated on a five-point Likert-type scale to indicate degree of use (Jalowiec, Murphy, & Powers, 1984). Dr. Jalowiec from the University of Illinois School of Nursing holds the copyright for the instrument and permission for use may be obtained from her. Please see Appendix C for a copy of the Jalowiec Coping Scale.

Jalowiec Coping Scale

Analysis of the Coping Scale was originally done by twenty nurse judges, who classified each item on the scale as either problem-oriented coping or affect-oriented coping (Jalowiec et al., 1984). This coping analysis yielded 15 problem-oriented and 25 affective-oriented coping strategies.

Reliability

Cronbach’s coefficient alpha was computed using SPSS software to estimate the internal consistency reliability of the instrument. Coping data from 141 ER and dialysis patients was obtained at .86. Instrument homogeneity is further supported by substantial correlations between subscale scores and total scale scores. Murphy (1982) demonstrated correlations of .83 between problem-oriented scores and total coping scores, and .86 between affective-oriented scores and total coping scores.

Validity

Content validity of the coping scale has been substantiated by the systematic manner of tool development, by the large number of items, and by the inclusion of diverse coping
behaviors. Construct validity is supported by the following factor analysis (Jalowiec, et al., 1984).

**Four-factor Solution**

Factor I contains 13 items: 10 problem-oriented coping strategies and three affective-oriented coping strategies. Factor II contains nine items: eight are affective-oriented, one problem-oriented. Factor III consists of 13 affective-related items related to stress reduction behaviors. Many of the items in Factor III reveal less effective coping behaviors, such as crying, emotional eating, smoking, and withdrawal. In Factor IV, six of the nine coping behaviors were other-oriented affective behaviors. Cronbach’s alpha was computed for the four factors to assess homogeneity within each factor. The results, respectively, were .86, .73, .75, and .55. While the results on Factor IV do not meet standards for reliability, they do satisfy Helmstader’s recommendation, which is that alpha coefficients be at least .50 for group comparisons (Jalowiec, et al., 1984). Therefore, construct validation achieved satisfactory standards for reliability and validity of the instrument (Jalowiec, et al.).

Finally, the Jalowiec Coping Scale has been used over time and is considered to be a significant addition in coping instrumentation widely in use in nursing and other disciplines; therefore, it has been selected for this study with confidence, significantly based on its proven history.

**Description of Quality of Life Index**

The Quality of Life Index was developed by Carol Estwing Ferrans, R.N., PhD., and Marjorie J. Powers, R.N., PhD., in 1984 and 1998. The Index consists of 66 questions, which are rated on a 6-point Likert-type scale, indicating degree of life satisfaction (Ferrans & Powers, 2004). Please see Appendix D for a copy of the Ferrans and Powers Quality of Life Index. Dr. Ferrans and Dr. Powers are at the University of Illinois (Chicago) School of
Nursing and hold the copyright for the instrument. Permission for use remains with them. (www.uic.edu/orgs/qli).

Quality of Life Index

Instrument development for a conceptual model of quality of life measurement began in 1982 (Ferrans, 1996). An individualist view was chosen; this view took the approach that quality of life is subjectively determined, and that the individual is the only proper judge of his or her own experience of life (Ferrans & Powers, 1985). Different people value different things. From this initial approach, the concept of life satisfaction was most congruent with the individualistic view (Ferrans, 1987).

Item development of the Quality of Life Index was derived from interviews with specific subgroups of patients, and an extensive literature review (Ferrans & Powers, 1985). Thirty-two elements of quality of life were obtained. Each element measured both life satisfaction and the importance of the element to the individual (Ferrans & Powers, 1985).

Finally, related elements were clustered into four domains:

- Health & Functioning Domain
- Psychological/Spiritual Domain
- Social & Economic Domain
- Family/Relationships Domain

Reliability

Cronbach’s alpha estimates internal consistency based on the average inter-item correlation among items within a test, and the number of items (Roscoe, 1969). Internal consistency reliability of the index was supported by Cronbach’s alpha of 0.93 when the index was given to graduate students, and 0.90 when given to dialysis patients (Ferrans & Powers, 1985).
Validity

Content validity, which depends on the extent to which an empirical measurement reflects specific domain of content, is supported by the fact that items were based both on a literature review and/or specific patient reports on their quality of life (Ferrans & Powers, 1985). Construct validity is supported by factor analysis based on data drawn from 349 hemodialysis patients (Ferrans & Powers, 1992).

The Instrument

Thirty-three questions are asked about Life Satisfaction in four domains, and 33 questions are asked about Life Importance in the same four domains; the answers are chosen on a 6-point Likert-type scale. Scoring has been developed to pair each satisfaction item with its paired importance item (Ferrans, 1996). Therefore, the highest scores are for combinations of high satisfaction and high importance, and the lowest for low satisfaction and high importance (Ferrans, 1996). Weighing with low importance produced middle-range scores. The rationale for the weighing scheme was the belief that people who are highly satisfied with the areas of life they most value enjoy a better quality of life than those who are dissatisfied with the areas of life they value. Thus, the quality of life score reflects satisfaction with the elements of life that matter most to the individual, thereby reflecting the definition of quality of life as a subjective phenomenon (Ferrans & Powers, 1985).

The Quality of Life Index as developed by Ferrans & Powers has been chosen for this study because its use has been validated over time (Anderson & Burckhardt, 1999) and because this nurse-developed instrument is congruent with the holistic approach to quality of life that is at the heart of the nursing profession.
Data Analysis / Statistics

Description of the Sample

The preliminary data analysis includes a complete description of the sample demographics using frequency distributions and descriptive statistics (i.e., means, distribution, range, standard deviation, and bar graphs), and analyses to ensure that the statistical assumptions for multiple regression were not violated. Multiple regression is a statistical technique for determining which of the variables are related to an identified outcome. Power analysis has been used to factor sample size.

Reliability of Instruments in Present Sample

Cronbach’s alpha coefficient will be used to determine the reliability of the instrument (Burns & Grove, 2001, p. 398). A co-efficient of .80 to .90 is appropriate for measuring the internal consistency of the instrument.

Testing Research Questions

Chi Square is the statistical analysis used to determine if a relationship exists between varying chronic illnesses, similarities in coping strategies, and perceived quality of life.

Statistics

Since this research project is an exploratory descriptive study, descriptive statistics were used to summarize the data. The following table indicates the statistical procedures used.
STATISTICAL PROCEDURES

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**Table 2 Statistical Procedures**

SPSS is the software utilized for statistical analysis (Einspruch, 1998). Because the subset sample size of \(n=30\) and overall sample size of \(n=180\) is sufficiently large, Spearman’s correlations have been used to examine the relationship between coping styles, six chronic illness group subtypes, and perceived quality of life.

**Methodological Limitations**

One limitation to the study is the threat to external validity caused by the recruitment of participants who would be willing, and physically able, to complete the questionnaire. Another limitation is the threat to internal validity in terms of the morbidity and mortality of the potential participants, since they are ill to begin with, and may become more ill at any time. Therefore, retention of subjects is a potential study limitation.
Human Subjects Considerations

Approval Process

Please see Appendix D for Washington State University's approval process. Studies including human subjects must be reviewed by the Institutional Review Board (IRB). Approval by the IRB is valid for only one year: OGRD may be contacted for further clarification.

Risks to Participants

The risks to a participant in this study are minimal, if any, and may include embarrassment or an emotional response to a question. Since the study participant will be answering the questionnaire from his or her own home, hopefully these risks will be better able to be tolerated. The participant's identity will remain confidential at all times.

Benefits to Participants

The participant benefits by providing information which will, hopefully, help identify effective ways of coping with chronic illnesses. This information will also benefit others who have these illnesses, as well as those who are family members or part of a medical team that interacts with a person who has a chronic illness.
Bibliography


Appendix A

Review of the Literature
<table>
<thead>
<tr>
<th>Author</th>
<th>Topic</th>
<th>Source</th>
<th>Purpose / Problem</th>
<th>Literature Review</th>
<th>Conceptual Framework</th>
<th>Methodology</th>
<th>Research Design</th>
<th>Sample</th>
<th>Sample Criteria</th>
<th>Measurement Variables</th>
<th>Reliability</th>
<th>Validity</th>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>External Validity</th>
<th>Source</th>
<th>Results</th>
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<tbody>
<tr>
<td>Courts, Boyette</td>
<td>Psychosocial adjustment on</td>
<td>Clinical Research, February</td>
<td>Investigate depression, anxiety and psychosocial adjustment for patients on three</td>
<td>Yes</td>
<td>Roy's Adaptation</td>
<td>Semi-structured interview/questionnaire</td>
<td>Comparative descriptive design</td>
<td>15 Men</td>
<td>4 Scales</td>
<td>5 pt Likert-type scales</td>
<td>Coefficient alpha = 0.94</td>
<td>4.2</td>
<td>1.0</td>
<td>Male patients on 3 types of dialysis</td>
<td>Anxiety, depression, psychosocial adjustment</td>
<td>cannot be generalized due to small sample size</td>
<td>Patients on home dialysis report less depression and higher psychosocial adjustment</td>
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<tr>
<td>Wa Lee</td>
<td>Coping behavior and COPD</td>
<td>Med/Surg Nursing, December</td>
<td>Examine coping strategies in individuals with COPD</td>
<td>Yes</td>
<td>Jowellie Coping Scale</td>
<td>Survey questionnaire</td>
<td>Exploratory design, correlational</td>
<td>150 individuals with COPD</td>
<td>18 years old, dx with COPD for 1 year, free from incapacitating disease, read and speak English</td>
<td>4 Pt Likert-type scale</td>
<td>Alpha reliability = 0.86</td>
<td>0.93</td>
<td>Patients with COPD</td>
<td>Coping strategies</td>
<td>Study limitations prevent broad generalization</td>
<td>4 coping styles were in order: 1) optimism, 2) controlling, 3) support, 4) palliative coping strategies</td>
<td>spirituality exercise</td>
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<tr>
<td>Muraed</td>
<td>Quality of life &amp; HIV</td>
<td>Journal of the Assoc of Nurses</td>
<td>Explored and described how persons with HIV adjust and maintain quality of life</td>
<td>Yes</td>
<td>“Achieving Balance”</td>
<td>Open-ended interviews</td>
<td>Qualitative</td>
<td>14 individuals (13 men, 1 woman)</td>
<td>18 years or older English-speaking diagnosed with HIV</td>
<td>3 interviews</td>
<td>constant comparative analysis method</td>
<td>Qualitative research</td>
<td>N/A</td>
<td>Patients with HIV</td>
<td>Adjustment to illness</td>
<td>Maintaining quality of life</td>
<td>Study theme may be reproduced if further studies are undertaken</td>
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<tr>
<td>Poster, Zaslawzniowski</td>
<td>Spirituality, resourcefulness in elders with RA</td>
<td>Journal of Holistic Nursing, December 2000</td>
<td>Investigation of mediating effects of spirituality, resourcefulness on quality of elders with RA</td>
<td>Yes</td>
<td>Neuman System Model</td>
<td>Qualitative</td>
<td>Correlational cross-sectional study</td>
<td>47 outpatients with RA</td>
<td>60 years or older diagnosis of RA ability to respond to survey outpatient mental illness</td>
<td>Likert-type questionnaire, survey</td>
<td>Power = .80</td>
<td>Alpha = .05</td>
<td>Positive correlations</td>
<td>Social, emotional and physical factors</td>
<td>Significance of overall model reduced due to small sample size</td>
<td>Social, emotional and physical stressors significant impact the health perception of older adult with RA</td>
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<td>Reynad, Meeker</td>
<td>Coping styles of older adults with ostomies</td>
<td>Journal of Gerontological Nursing, May 2002</td>
<td>Describe coping styles of older adults with ostomies</td>
<td>Yes</td>
<td>Lazarus and Folkman's Theory on Stress and Coping</td>
<td>Qualitative</td>
<td>Exploratory descriptive</td>
<td>30 participants</td>
<td>Age 50+ Able to read and speak English Have an ostomy was at least 6 months</td>
<td>Likert-type questionnaire</td>
<td>Cronbach alpha = 0.90</td>
<td>Test-retest reliability</td>
<td>Correlations significant at L 0.002</td>
<td>Patients with an ostomy</td>
<td>Coping styles</td>
<td>Findings can be generalized to individuals with similar demographics</td>
<td>Participants chose coping styles that optimistic self-reliant spiritual or conceptual</td>
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<tr>
<td>Hildingh, Fridlund</td>
<td>Peer support groups after a cardiac event</td>
<td>British Journal of Nursing, 2001</td>
<td>Comparison of those that attended support groups with those that did not</td>
<td>Yes</td>
<td>McCaulley's Assessment of Social Support Model</td>
<td>Quantitative</td>
<td>Descriptive exploratory</td>
<td>220 cardiac patients</td>
<td>MI or CABG within 2 years before study, able to complete questionnaire, living in own home</td>
<td>Questionnaire consisting of 4 scales used to measure coping, social support and HRQOL</td>
<td>Cronbach's alpha low on two of the 4 scales</td>
<td>Type II error</td>
<td>Chi-squared</td>
<td>Patients who had an MI or CABG within the past two years</td>
<td>Coping styles social support, HRQOL</td>
<td>Findings need to be replicated before generalization can be made</td>
<td>Majority of patients did attend peer support groups, men and women did not attend equally</td>
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<tr>
<td>Topic</td>
<td>Source</td>
<td>Purpose / Problem</td>
<td>Conceptual Framework</td>
<td>Methodology</td>
<td>Research Design</td>
<td>Sample</td>
<td>Sample Criteria</td>
<td>Measurement</td>
<td>Reliability</td>
<td>Validity</td>
<td>Dependent Variable</td>
<td>Independent Variables</td>
<td>External Validity</td>
<td>Significance for Nursing</td>
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<td>psychosocial adjustment on dialysis</td>
<td>Clinical Nursing Research, February 1998</td>
<td>Investigate depression, anxiety and psychosocial adjustment for patients on three modes of dialysis</td>
<td>Roy's Adaptation Model of Nursing</td>
<td>Semi-structured interview / questionnaire</td>
<td>Comparative descriptive design</td>
<td>15 Men</td>
<td>Patients in a dialysis center able to read English closely matched on all education grades</td>
<td>4 Scales used to measure coping and stress</td>
<td>Coefficient alpha of .94</td>
<td>Mean standard error of measurement = 4.2</td>
<td>Male patients on 3 types of dialysis</td>
<td>Anxiety, depression, psychosocial adjustment</td>
<td>Results cannot be generalized due to small sample size</td>
<td>Patients on home dialysis report less depression and higher psychosocial adjustment</td>
<td>Encourage Home Dialysis where possible, assess for depression in dialysis patients and treat where necessary</td>
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<td>coping behavior and COPD</td>
<td>Med/Surg Nursing, December 2001</td>
<td>Examine coping strategies in individuals with COPD</td>
<td>Jelowiec Coping Scale</td>
<td>Surgery questionnaire</td>
<td>Exploratory design, correlational</td>
<td>150 individuals with COPD</td>
<td>18 years old, dx with COPD for 1+ years, free from incapacitating disease, read and speak English</td>
<td>4 Pt Likert-type scale</td>
<td>Alpha reliability = 0.86</td>
<td>0.93</td>
<td>Patients with COPD</td>
<td>Coping styles</td>
<td>Study limitations prevent broad generalization</td>
<td>4 coping styles were in order: 1) optimistic, 2) confrontive 3) supportive 4) palliative</td>
<td>Nurses can educate individuals about coping options</td>
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<td>quality of life HIV</td>
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<td>Explored and described how persons with HIV adjust and maintain quality of life</td>
<td>&quot;Achieving Balance&quot; (core process)</td>
<td>Open-ended interviews</td>
<td>Qualitative Grounded theory</td>
<td>14 individuals (13 men, 1 woman)</td>
<td>18 years or older English-speaking diagnosed with HIV</td>
<td>3 interviews constant comparative analysis method</td>
<td>Qualitative research</td>
<td>N/A</td>
<td>Patients with HIV</td>
<td>Adjustment to illness</td>
<td>Maintaining quality of life</td>
<td>Study theme may be reproduced if further studies are undertaken</td>
<td>Patients go through stages of coping with HIV</td>
<td>Points of intervention for clinicians when quality of life changes</td>
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<td>spirituality, sourcefulness elders with A</td>
<td>Journal of Holistic Nursing, December 2000</td>
<td>Investigation of mediating effects of spirituality, sourcefulness on elders with RA</td>
<td>Neuman System Model</td>
<td>Quantitative Correlational cross-sectional study</td>
<td>47 outpatients with RA</td>
<td>60 years or older diagnosis of RA ability to respond to survey outpatient mental illness</td>
<td>Likert-type questionnaire, survey</td>
<td>Power = .80 Alpha = .05 Significance level = .05 Large effect size = .30 Power analysis = 39</td>
<td>Positive correlations</td>
<td>General health perception</td>
<td>Social, emotional and psychological factors</td>
<td>Significance of overall model reduced due to small sample size</td>
<td>Social, emotional, physical stressors significantly impact the health perception of older adults with RA</td>
<td>Acknowledging and affirming a person's spirituality, and learning effective coping strategies fosters health promotion</td>
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<td>Test-retest reliability Correlations significant at L .002</td>
<td>Patients with an ostomy</td>
<td>Coping styles</td>
<td>Findings can be generalized to individuals with similar demographics</td>
<td>Participants chose coping styles that were optimistic and self-reliant; spiritual coping was used frequently</td>
<td>Nurses can teach and reinforce positive thinking, maintaining a normal routine and not allowing the problem to interfere with routines</td>
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<td>Type II error Chi-squared</td>
<td>Patients who had an MI or CABG within the past two years</td>
<td>Coping styles social support, HRQOL</td>
<td>Findings need to be replicated before generalization can be made</td>
<td>Majority of patients did not attend peer support groups, more women than men did attend</td>
<td>Attendance highest when given info on support groups by healthcare professionals before hospital discharge</td>
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<td>Author</td>
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<td>Semi-structured interview/questionnaire</td>
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<td>Coefficient alpha of .94</td>
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<td>Coping behavior and COPD</td>
<td>Med/Surg Nursing, December 2001</td>
<td>Examine coping strategies in individuals with COPD</td>
<td>Quantitative</td>
<td>Exploratory design, correlational</td>
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<td>Patients with COPD</td>
<td>Coping strategies</td>
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<td>4 coping styles were in order: 1) optimistic, 2) confrontive, 3) supportive, 4) palliative</td>
<td>Nurse individual coping</td>
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<td>Murdaugh</td>
<td>Quality of life &amp; HIV</td>
<td>Journal of the Assoc of Nurses in AIDS Care, November/December 1998</td>
<td>Explored and described how persons with HIV adjust and maintain quality of life</td>
<td>“Achieving Balance” (core process)</td>
<td>Grounded theory</td>
<td>14 individuals (13 men, 1 woman)</td>
<td>18 years or older English-speaking diagnosed with HIV</td>
<td>3 interviews constant comparative analysis method</td>
<td>Qualitative research</td>
<td>N/A</td>
<td>Patients with HIV</td>
<td>Adjustment to illness</td>
<td>Maintaining quality of life</td>
<td>Study theme may be reproduced if further studies are undertaken</td>
<td>Patients go through stages of coping with HIV</td>
<td>Points for clinical practice and practice change</td>
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<tr>
<td>Potter, Zauszniewski</td>
<td>Spirituality, resourcefulness in elders with RA</td>
<td>Journal of Holistic Nursing, December 2000</td>
<td>Investigation of mediating effects of spirituality, resourcefulness on elders with RA</td>
<td>Neuman System Model</td>
<td>Correlational cross-sectional study</td>
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<td>Power = .80, Alpha = .05, Significance level = .05, Large effect size = .30, Power analysis = .39</td>
<td>Positive correlations</td>
<td>General health perception</td>
<td>Social, emotional, physical factors</td>
<td>Significance of overall model reduced due to small sample size</td>
<td>Social, emotional, physical factors, significantly impact the health perception of older adults with RA</td>
<td>Acknowledgment of spirituality and learning processes facilitate growth</td>
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<tr>
<td>Reynolds, Meeker</td>
<td>Coping styles of older adults with ostomies</td>
<td>Journal of Gerontological Nursing, May 2002</td>
<td>Describe coping styles of older adults with ostomies</td>
<td>Lazarus and Folkman’s Theory on Stress and Coping</td>
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<td>Likert-type questionnaire</td>
<td>Cronbach alpha = .90, T-tests ANOVA</td>
<td>Test-estet reliability</td>
<td>Correlations significant at L = 0.002</td>
<td>Patients with an ostomy</td>
<td>Coping styles</td>
<td>Findings can be generalized to individuals with similar demographics</td>
<td>Participants chose coping styles that were optimistic and self-reliant; spiritual coping was used frequently</td>
<td>Nurse rein-think the non-not a problem, but something else</td>
<td></td>
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<tr>
<td>Hildingh, Fridlund</td>
<td>Peer support groups after a cardiac event</td>
<td>British Journal of Nursing, 2001</td>
<td>Comparison of those that attended support groups with those that did not</td>
<td>McCaulley's Assessment of Social Support Model</td>
<td>Quantitative</td>
<td>Descriptive exploratory</td>
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<td>MI or CABG within 2 years before study, able to complete questionnaire, living in own home</td>
<td>Questionnaire consisting of 4 scales used to measure coping, social support and HQOL</td>
<td>Cronbach’s alpha low on two of the 4 scales</td>
<td>Type II error Chi-squared</td>
<td>Patients who had an MI or CABG within the past two years</td>
<td>Coping style: social support, HQOL</td>
<td>Findings need to be replicated before generalization can be made</td>
<td>Majority of patients did not attend peer social support groups, more women than men did attend</td>
<td>Amenities to support health, professional support</td>
<td></td>
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</table>
Appendix B

Jalowiec Coping Scale
### Table 1. Composition for Two-Factor and Four-Factor Solutions of Coping Scale Items

<table>
<thead>
<tr>
<th>FACTOR LOADINGS</th>
<th>COPING STRATEGY</th>
<th>FACTOR LOADINGS</th>
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<tr>
<td></td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>0.17</td>
<td>2.27 Worry (A)&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.17</td>
</tr>
<tr>
<td>0.02</td>
<td>3.38 Cry (A)</td>
<td>-0.02</td>
</tr>
<tr>
<td>0.32</td>
<td>0.05 Activity/exercise (A)</td>
<td>0.31</td>
</tr>
<tr>
<td>0.35</td>
<td>0.27 Optimism (A)</td>
<td>0.32</td>
</tr>
<tr>
<td>0.29</td>
<td>0.20 Humor (A)</td>
<td>0.21</td>
</tr>
<tr>
<td>0.08</td>
<td>0.11 Consider different solutions (P)</td>
<td>0.68</td>
</tr>
<tr>
<td>0.05</td>
<td>0.20 Eat/smoke (A)</td>
<td>0.04</td>
</tr>
<tr>
<td>0.08</td>
<td>0.03 Drink (A)</td>
<td>0.09</td>
</tr>
<tr>
<td>0.05</td>
<td>0.21 Drugs (A)</td>
<td>0.02</td>
</tr>
<tr>
<td>-0.19</td>
<td>0.36 Put problem aside (A)</td>
<td>-0.09</td>
</tr>
<tr>
<td>0.19</td>
<td>0.34 Daydream (A)</td>
<td>0.07</td>
</tr>
<tr>
<td>0.14</td>
<td>0.43 Try anything (P)</td>
<td>0.08</td>
</tr>
<tr>
<td>0.34</td>
<td>0.36 Discuss problem (P)</td>
<td>0.28</td>
</tr>
<tr>
<td>0.25</td>
<td>0.49 Pessimism (A)</td>
<td>0.23</td>
</tr>
<tr>
<td>0.12</td>
<td>0.30 Get mad/cure (A)</td>
<td>0.12</td>
</tr>
<tr>
<td>0.35</td>
<td>0.24 Acceptance (P)</td>
<td>0.26</td>
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<tr>
<td>0.71</td>
<td>0.11 View problem objectively (P)</td>
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<tr>
<td>0.62</td>
<td>-0.10 Maintain control (P)</td>
<td>0.64</td>
</tr>
<tr>
<td>0.57</td>
<td>-0.13 Seek purpose/meaning (P)</td>
<td>0.59</td>
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<tr>
<td>0.14</td>
<td>0.09 Pray/trust God (A)</td>
<td>0.10</td>
</tr>
<tr>
<td>0.11</td>
<td>0.42 Get nervous (A)</td>
<td>0.10</td>
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<tr>
<td>-0.02</td>
<td>0.61 Situational withdrawal (A)</td>
<td>-0.09</td>
</tr>
<tr>
<td>-0.10</td>
<td>0.35 Blame others (A)</td>
<td>-0.11</td>
</tr>
<tr>
<td>0.50</td>
<td>-0.02 Try to change situation (P)</td>
<td>0.53</td>
</tr>
<tr>
<td>0.11</td>
<td>0.33 Release tension on others (A)</td>
<td>0.09</td>
</tr>
<tr>
<td>0.16</td>
<td>0.38 Isolation (A)</td>
<td>0.14</td>
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<tr>
<td>-0.14</td>
<td>0.55 Resignation/it’s hopeless (A)</td>
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<td>0.07</td>
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<td>0.25</td>
<td>0.25 Get comfort/help from others (A)</td>
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<td>0.40</td>
<td>0.09 Meditation/mind over matter (A)</td>
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<td>0.75</td>
<td>0.09 Information-seeking (P)</td>
<td>0.75</td>
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<tr>
<td>0.68</td>
<td>0.17 Try different solutions (P)</td>
<td>0.65</td>
</tr>
<tr>
<td>-0.12</td>
<td>0.45 Resignation/it’s fate (A)</td>
<td>-0.20</td>
</tr>
<tr>
<td>0.54</td>
<td>0.14 Use past experience (P)</td>
<td>0.36</td>
</tr>
<tr>
<td>0.58</td>
<td>0.16 Handle problem piecemeal (P)</td>
<td>0.53</td>
</tr>
<tr>
<td>0.12</td>
<td>0.45 Sleep (A)</td>
<td>0.03</td>
</tr>
<tr>
<td>0.70</td>
<td>-0.04 Set goals (F)</td>
<td>0.68</td>
</tr>
<tr>
<td>0.21</td>
<td>0.25 Don’t worry (A)</td>
<td>0.10</td>
</tr>
<tr>
<td>0.25</td>
<td>0.46 Settle for next best thing (P)</td>
<td>0.19</td>
</tr>
</tbody>
</table>

| 6.16    | 2.79 Rotated eigenvalue | 6.23 | 2.55 | 2.09 | 1.50 |
| 15.40   | 7.00 Percent of total variance explained<sup>d</sup> | 15.58 | 7.13 | 5.23 | 3.75 |
| 15.40   | 22.40 Cumulative percent | 15.58 | 22.71 | 27.94 | 31.69 |
| 68.83   | 31.17 Percent of explained variance | 49.17 | 22.49 | 16.49 | 11.84 |

<sup>a</sup>Principal factor extraction with Varimax rotation; N = 141
<sup>b</sup>Minimally meaningful factor loading: 0.30
<sup>c</sup>Letters in parentheses indicate whether originally classified as problem-oriented or affective-oriented
<sup>d</sup>Total variance to be explained: 49
Appendix C

Quality of Life Index
PART 1. For each of the following, please choose the answer that best describes how satisfied you are with that area of your life. Please mark your answer by circling the number. There are no right or wrong answers.

**HOW SATISFIED ARE YOU WITH:**

1. Your health?  
   - Very Dissatisfied  
   - Moderately Dissatisfied  
   - Slightly Dissatisfied  
   - Slightly Satisfied  
   - Moderately Satisfied  
   - Very Satisfied

2. Your health care?  
   - Very Dissatisfied  
   - Moderately Dissatisfied  
   - Slightly Dissatisfied  
   - Slightly Satisfied  
   - Moderately Satisfied  
   - Very Satisfied

3. The amount of pain that you have?  
   - Very Dissatisfied  
   - Moderately Dissatisfied  
   - Slightly Dissatisfied  
   - Slightly Satisfied  
   - Moderately Satisfied  
   - Very Satisfied

4. The amount of energy you have for everyday activities?  
   - Very Dissatisfied  
   - Moderately Dissatisfied  
   - Slightly Dissatisfied  
   - Slightly Satisfied  
   - Moderately Satisfied  
   - Very Satisfied

5. Your ability to take care of yourself without help?  
   - Very Dissatisfied  
   - Moderately Dissatisfied  
   - Slightly Dissatisfied  
   - Slightly Satisfied  
   - Moderately Satisfied  
   - Very Satisfied

6. The amount of control you have over your life?  
   - Very Dissatisfied  
   - Moderately Dissatisfied  
   - Slightly Dissatisfied  
   - Slightly Satisfied  
   - Moderately Satisfied  
   - Very Satisfied

7. Your chances of living as long as you would like?  
   - Very Dissatisfied  
   - Moderately Dissatisfied  
   - Slightly Dissatisfied  
   - Slightly Satisfied  
   - Moderately Satisfied  
   - Very Satisfied

8. Your family’s health?  
   - Very Dissatisfied  
   - Moderately Dissatisfied  
   - Slightly Dissatisfied  
   - Slightly Satisfied  
   - Moderately Satisfied  
   - Very Satisfied

9. Your children?  
   - Very Dissatisfied  
   - Moderately Dissatisfied  
   - Slightly Dissatisfied  
   - Slightly Satisfied  
   - Moderately Satisfied  
   - Very Satisfied

10. Your family’s happiness?  
    - Very Dissatisfied  
    - Moderately Dissatisfied  
    - Slightly Dissatisfied  
    - Slightly Satisfied  
    - Moderately Satisfied  
    - Very Satisfied

11. Your sex life?  
    - Very Dissatisfied  
    - Moderately Dissatisfied  
    - Slightly Dissatisfied  
    - Slightly Satisfied  
    - Moderately Satisfied  
    - Very Satisfied

12. Your spouse, lover, or partner?  
    - Very Dissatisfied  
    - Moderately Dissatisfied  
    - Slightly Dissatisfied  
    - Slightly Satisfied  
    - Moderately Satisfied  
    - Very Satisfied

13. Your friends?  
    - Very Dissatisfied  
    - Moderately Dissatisfied  
    - Slightly Dissatisfied  
    - Slightly Satisfied  
    - Moderately Satisfied  
    - Very Satisfied

14. The emotional support you get from your family?  
    - Very Dissatisfied  
    - Moderately Dissatisfied  
    - Slightly Dissatisfied  
    - Slightly Satisfied  
    - Moderately Satisfied  
    - Very Satisfied

15. The emotional support you get from people other than your family?  
    - Very Dissatisfied  
    - Moderately Dissatisfied  
    - Slightly Dissatisfied  
    - Slightly Satisfied  
    - Moderately Satisfied  
    - Very Satisfied

(Please Go To Next Page)
### HOW SATISFIED ARE YOU WITH:

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<tr>
<th>Question</th>
<th>Very Dissatisfied</th>
<th>Moderately Dissatisfied</th>
<th>Slightly Dissatisfied</th>
<th>Slightly Satisfied</th>
<th>Moderately Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Your ability to take care of family responsibilities?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>17. How useful you are to others?</td>
<td>1</td>
<td>2</td>
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<td>6</td>
</tr>
<tr>
<td>18. The amount of worries in your life?</td>
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<td>2</td>
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<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>19. Your neighborhood?</td>
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<tr>
<td>20. Your home, apartment, or place where you live?</td>
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<tr>
<td>21. Your job (if employed)?</td>
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<tr>
<td>22. Not having a job (if unemployed, retired, or disabled)?</td>
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<tr>
<td>23. Your education?</td>
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<td>2</td>
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</tr>
<tr>
<td>24. How well you can take care of your financial needs?</td>
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<tr>
<td>25. The things you do for fun?</td>
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<tr>
<td>26. Your chances for a happy future?</td>
<td>1</td>
<td>2</td>
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<tr>
<td>27. Your peace of mind?</td>
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<tr>
<td>28. Your faith in God?</td>
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<td>6</td>
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<tr>
<td>29. Your achievement of personal goals?</td>
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<td>6</td>
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<tr>
<td>30. Your happiness in general?</td>
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<tr>
<td>31. Your life in general?</td>
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<td>6</td>
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<tr>
<td>32. Your personal appearance?</td>
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<td>33. Yourself in general?</td>
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PART 2. For each of the following, please choose the answer that best describes how important that area of your life is to you. Please mark your answer by circling the number. There are no right or wrong answers.

**HOW IMPORTANT TO YOU IS:**

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<th>Moderately Unimportant</th>
<th>Slightly Unimportant</th>
<th>Slightly Important</th>
<th>Moderately Important</th>
<th>Very Important</th>
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<td>2. Your health care?</td>
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<td>3. Having no pain?</td>
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<td>4. Having enough energy for everyday activities?</td>
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<td>5. Taking care of yourself without help?</td>
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<td>6. Having control over your life?</td>
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<td>7. Living as long as you would like?</td>
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<td>27. Peace of mind?</td>
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<td>31. Being satisfied with life?</td>
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<td>33. Are you to yourself?</td>
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Appendix D

Demographic Questionnaire
Appendix D
Demographic Questionnaire

Demographic Questionnaire

Age (in years): ___________________________ Marital Status: ___________________________

Gender: Male ______ Female ______ Annual Income: ___________________________

Ethnicity: ___________________________ Education level (in years): __________________

Medical Diagnosis: (check all that apply)

Arthritis ______
Heart Disease ______
Stroke ______
Cancer ______
Kidney Disease ______
Cancer / Ulcerative Colitis ______
HIV / AIDS ______
COPD ______

Year of Diagnosis ______
Appendix E

Sample Data Collection Form
DATA COLLECTION FORM

Demographics

____ Subject Identification Number

____ Age (in years)

____ Gender
   1. Male
   2. Female

____ Marital Status
   3. Married
   4. Divorced
   5. Single

____ Ethnicity
   6. Caucasian
   7. African American
   8. Asian
   9. Hispanic
  10. Pacific Islander
  11. American Indian

____ Income level
   12. <$20,000 annually
   13. $20-40,000 annually
   14. $40-60,000 annually
   15. $60-80,000 annually
   16. >$80,000 annually

____ Education level (in years)

____ Year of diagnosis of chronic illness
Appendix F

Written Consent Form
Coping and Chronic Illness

You are invited by Lucinda Connery, R.N., at Washington State University School of Nursing to help us with a study. Your agreement to be in this study is voluntary and of your own free will. The Washington State University Institution Review Board (IRB) has agreed that you can safely participate in this study.

This study is looking at how persons with a chronic illness cope with their illness. You are asked to be a part of this study because you have been diagnosed with _________________.

Whether you agree to be in this study or not, your care at ________________ Clinic will not be changed in any way.

If you agree to take part in this study, you will need to sign this consent form.

Explanation of Study

The study is a questionnaire which will be mailed to your home. You can take your time filling it out, then just put it in the stamped, addressed manila envelope when you are finished with all the questions.

Potential Risks

There are minimal risks involved in participating in this study; there may be some embarrassment or an emotional response to a question, but nothing more than that.

You are free to stop the study at any time. If you do choose to stop the study, your status as a patient at the ________________ Clinic will not change.

Potential Benefits

You will be helping us understand more about what it is like to live with a chronic illness. Hopefully, this information will benefit society as a whole.

Assurance of Confidentiality

Information obtained as part of this study will remain private and confidential. The information will be used only for this study. You will be assigned a code number that we will use on data entry forms. This number will only be available to the research team. At no time will your answers or any other information be given to anyone without your permission. Study results will be reported only as group data and will not contain your name.
Appendix F
Written Consent Form

Informed Consent

As shown by my signature below, I have been told about the study goals, procedures and risks that may be part of this study.

1. I, as shown by my signature below, understand that I am taking part in this study of my own free will and that I may stop at any time.

2. I, as shown by my signature below, give permission to the researchers to use and to destroy the finds from this study. I understand that the researchers agree to protect the confidentiality of my answers to this study according to Washington State Law.

I have read and understand the above conditions. I have had a chance to ask questions about the study and how the study data will be collected. These questions have been answered to my satisfaction. I have read and understand the study questions and have received a copy of this form.

I may contact Lucinda Connery, R.N., B.S.N., at Washington State University at Vancouver, at (360) 546-1234 to get further information or to ask any questions I may have about this study at any time.

Signature: _____________________________ Date: ________________
Witness Signature: ___________________________ Date: ________________