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FACTORS AFFECTING PSYCHOLOGICAL WELL-BEING IN RHEUMATOID ARTHRITIC WOMEN

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ABSTRACT

Factors Affecting Psychological Well-being in Rheumatoid Arthritic Women

This study examined the nature of the relationships among demographic/illness characteristics, coping focus, social support, functional status, and psychological well-being in 92 rheumatoid arthritic women from three Rheumatology Clinics in a large metropolitan area. The theoretical basis was Lazarus' paradigm of stress and coping which rests on the notion that the way a person appraises or construes one's relationship with the environment determines whether or not the individual perceives the situation as a stressful event.

The major research question was, "What is the nature of the relationships among the rheumatoid arthritic woman's demographic/illness characteristics, coping focus, social support, functional status, and psychological well-being?" Twelve relational sub-questions were posed and eleven hypotheses were generated.

The study design was a cross-sectional, correlational approach to survey data. Data collection was accomplished by interview with six structured questionnaires: 1) Demographic/Illness Data Questionnaire (demographic/illness characteristics), 2) Coping Questionnaire (coping focus), 3) Social Support Questionnaire (social support), 4) Functional Status Index Questionnaire (dependence, pain, and difficulty), 5) Bradburn Morale Scale (psychological well-being), and 6) Qualitative

Data Questionnaire (two open-ended questions allowing subjects to describe living with rheumatoid arthritis). Data was analyzed using multiple regression/correlation analysis as well as content analysis to address relationships among variables and to identify predictors of psychological well-being in rheumatoid arthritic women.

The findings demonstrated positive correlations between age and each component of functional status (pain, $r = 0.244$, $p < .01$; dependence, $r = 0.371$, $p < .001$; and difficulty, $r = 0.211$, $p < .01$), and between length of illness and each component of functional status (pain, $r = 0.217$, $p < .025$; dependence, $r = .0343$, $p < .001$; and difficulty, $r = 0.315$, $p < .001$) suggesting an increase in age or an increase in length of illness contributed to a decrease in functional status. Psychological well-being was found to be negatively correlated with pain ($r = -0.287$, $p < .01$), difficulty ($r = -0.265$, $p < .01$), and emotion-focused coping ($r = -0.251$, $p < .01$) indicating the woman encountering an increase in either pain or difficulty in performing tasks, or an increase in the use of emotion-focused coping was more likely to sustain a decrease in psychological well-being. Emotion-focused coping and education ($r = -0.237$, $p < .01$) demonstrated a negative correlation which indicated the less educated woman was more likely than her more educated counterpart to use emotion-focused coping.

Caucasian women were found to use more emotional support ($t = 2.12$, $p < .05$), whereas non-Caucasian women were found to use more informational support ($t = 2.00$, $p < .05$). In addition, a negative correlation was demonstrated between age and tangible support ($r = -0.273$, $p < .01$). These findings suggest both age and racial/ethnic background can influence the type of social support used by the rheumatoid arthritic woman.

Pain ($r = -0.29$, $p < .01$) and emotion-focused coping ($r = -0.24$, $p < .05$) were demonstrated, by step-wise regression, to be the best predictors of psychological well-being. The negative correlations demonstrated suggest as both pain and emotion-focused coping increased psychological well-being decreased.

Two categories emerged from the content analysis. These categories included, "cutting back on physical activities," and "maintaining internal control." Cutting back on physical activities was seen by the women to be one of the most frustrating aspects of the illness while maintaining internal control was described as a major means of coping with rheumatoid arthritis.

The relationships demonstrated among the concepts examined in this study provide the nurse with a factor-relating paradigm which can assist in the identification and description of rheumatoid arthritic women who are likely to: 1) encounter difficulties in carrying out tasks of daily living, 2) use emotion-focused coping, 3) lack tangible support, 4) use informational support, 5) use emotional support, and 6) encounter difficulties in achieving psychological well-being. The findings of this study have generated descriptive information about the psychosocial situation of women afflicted with rheumatoid arthritis.

Vickie A. Lambert

Vickie A. Lambert
Investigator

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CHAPTER I

INTRODUCTION

Impetus for the Study

The nature of the relationship that exists among demographic/ illness characteristics, coping focus, functional status, social support, and psychological well-being in rheumatoid arthritic women remains a largely unexplored issue in today's health care practice. Due to the prevalence of rheumatoid arthritis (United States Bureau of the Census, 1978), nurses continually are faced with problems that involve assisting the afflicted woman with the management of her chronically ill state. The simple provision of health care therapies necessary to aid the woman in controlling and maintaining her illness is not sufficient for providing comprehensive health care because rheumatoid arthritis often requires a total readjustment in the afflicted woman's life style. For example, as a result of rheumatoid arthritis, the afflicted woman may be required to: 1) deal with symptoms; 2) manage health care regimens; 3) deal with alterations in bodily appearance; 4) handle the uncertainty of the progression of the disease process; and, 5) revise personal, social, and occupational goals. It is not an easy task for the afflicted woman to deal with and manage this array of complex outcomes.

Therefore, nursing needs to develop the body of knowledge which helps in identifying and describing the factors which enhance a rheumatoid arthritic woman's sense of psychological well-being. If a knowledge base is not developed which identifies and describes these factors and their relationships, nursing is likely to carry out its practices on speculation alone. By developing the knowledge base about the factors which contribute to psychological well-being in the rheumatoid arthritic woman, nursing will advance toward more scientific, appropriate, and therapeutic psychosocial nursing interventions.

Significance of the Study

Nursing research is needed to generate the scientific knowledge base for the health care of chronically ill persons. Over the past fifteen years, nursing studies seldom have dealt with patients who have chronic illnesses (O'Connel & Duffey, 1978). This omission has been due to the fact that nurses have been inadequately prepared to deal with the intricacies of health care of the chronically ill individual. Nursing curricula frequently have focused on the care of the acutely ill individual and subsequently have placed minimal emphasis on the comprehensive health care needs of the person afflicted with a chronic illness.

The 1978 National Arthritic Advisory Board (NAAB) called upon all health care providers to focus more of their research efforts on the problems of chronically ill arthritic patients. The NAAB pointed out that knowledge about <u>comprehensive</u> care of the patients afflicted with arthritis was grossly lacking. Dealing with factors influencing psychological well-being in rheumatoid arthritic women certainly is an important component of comprehensive health care practice. Therefore, this study was timely both in regard to providing scientific knowledge for nursing science as it relates to chronic illness and to providing necessary information for comprehensive health care of the rheumatoid arthritic patient.

Nature of the Study

This study involved interviews with 92 rheumatoid arthritic women from three different Rheumatology Clinics located in a large west coast urban area. Each rheumatoid arthritic woman who met the criteria for inclusion and who consented to participate in the study was interviewed by the investigator while the woman waited for her scheduled clinic visit.

During the interview, each woman was asked to respond to specific questions on six different questionnaires. These questionnaires, when taken in combination, would tap information about specific factors which could influence a rheumatoid arthritic woman's psychological well-being. It was the intent of the investigator to identify and describe the nature of the relationships that existed among these specific factors.

Organization of the Study

The dissertation is organized into seven chapters as follow:

Chapter One, "Introduction," presents the impetus, significance, and nature of the study.

Chapter Two, "Background Information," discusses clinical issues about the chronic illness, rheumatoid arthritis. Previous research related to the psychological aspects of rheumatoid arthritis, as well as the purpose of this study is presented.

Chapter Three, "Conceptual Framework," addresses Lazarus' paradigm of stress and coping and describes how this paradigm was used in relationship to the investigation. A presentation of the study's research questions, hypotheses, and operational definitions comprise the remainder of the chapter.

Chapter Four, "Method," consists of a description and explanation of the overall design of the study. The characteristics of the sample population are discussed. Each tool utilized in this study is presented, described, and discussed. In addition, the methods of quantitative and qualitative analyses utilized are presented.

Chapter Five, "Findings," contains a profile of the study subjects, an overview of the study tool scores, a report on the reliability of the study tools, a presentation of the findings for each research question, and a discussion of the content analysis conducted on the two open-ended questions.

Chapter Six, "Discusssion," presents the significant findings of the study and discusses their implications in regard to prior research, to the conceptual framework of the study, and to nursing practice.

Chapter Seven, "Conclusions," consists of an overview of the study and its findings, a presentation of implications for nursing, a discussion of the limitations of the study, and suggestions for future research.

CHAPTER TWO

BACKGROUND INFORMATION

Building upon previous empirical and clinical findings is a necessary act for scientific clinical research. Therefore, this chapter addresses salient clinical issues about the chronic illness, rheumatoid arthritis; presents previous research related to the psychosocial aspects of rheumatoid arthritis; and states the purpose of this study.

Arthritis

Of all the chronic illnesses afflicting humankind, none is more widespread and more disabling than arthritis. Approximately 31.6 million of the 211 million people within the United States are afflicted with some type of arthritis (National Center for Health Statistics, 1978; Arthritis Foundation, 1980). Of those individuals afflicted with arthritis, 7.1 million are under 45 years of age, 13.9 million are 45 to 65 years of age, and 10.6 million are over 65 years of age (National Center for Health Statistics, 1978; Arthritis Foundation, 1980).

Of the 31.6 million individuals afflicted with some type of arthritis, 6.5 million have rheumatoid arthritis, 16 million have osteoarthritis, 1.6 million have gout, and 7.5 million have various other types of arthritis afflictions (i.e., ankylosing spondylitis, psoriatic arthritic, scleroderma, and systemic lupus erythematosus) (National Center for Health Statistics, 1978; Arthritis Foundation, 1980).

The Arthritis Foundation has estimated that more than 5.4 million Americans are disabled by arthritis. The number of persons disabled by arthritis increased by 54% between 1969 and 1976 (National Center for Health Statistics, 1978). No doubt this reported increase in incidence of disability has been brought about by more accurate statistics. The greater likelihood of correct diagnosis occurring as a result of advanced technology has facilitated the accuracy of reported arthritic disabilities.

Based upon the widespread prevalence and disabling effects created by arthritis, the investigator elected to examine the illness in regard to what variables tended to contribute most significantly to the afflicted woman's psychological well-being. Only women with rheumatoid arthritis were selected due to the facts that: 1) rheumatoid arthritis tends to be the most virulent form of arthritis, and 2) women tend to be afflicted with rheumatoid arthritis more often than men (Williams, 1979; National Center for Health Statistics, 1978). It was best to limit the study to one specific arthritic condition since osteoarthritis, gout, and the other types of arthritis manifest different etiologies and pathologies from rheumatoid arthritis (Williams, 1979; Masi & Medsger, 1979). Due to the fact that the various arthritic conditions differ in their virulence and subsequent disabling effects, difficulties could arise when attempting to make generalizations among the conditions about factors that contribute to psychological well-being.

Rheumatoid Arthritis

Definition and Manifestations.

Rheumatoid arthritis, according to Masi and Medsger (1979), is a systemic connective tissue disorder of unknown cause in which symptoms and inflammatory changes predominate in articular and related structures with frequent note of protean manifestations and extraarticular features. As a rule, rheumatoid arthritic symptoms begin as generalized fatigue, soreness, stiffness (especially upon rising in the morning), and aching. This is followed by a gradual appearance of bi-lateral, localized symptoms in a joint or in several joints. These localized symptoms consist of pain, swelling, warmth, and tenderness (Williams, 1979; Katz, 1977).

Since rheumatoid arthritis involves the joints, the afflicted individual's mobility can become grossly affected as the illness progresses. This occurs due to the inflammatory changes that take place in the synovial membranes of the joint. Outgrowths of the inflammed tissue invade the cartilage which surrounds the bone ends and eventually erodes subchondral bone. As a result, scar tissue forms between bone ends so that the joint becomes fragile, permanently rigid, and immovable. Inflammation of the joint space can lead to distortion of the joint. This becomes most apparent when rheumatoid arthritis attacks the hands. The fingers can be drawn back and sideways, the outcome being a deformed hand which is difficult to use properly when performing common daily tasks (Genant, 1979; Masi & Medsger, 1979).

Although any joint in the body may be involved, the knees and small joints of the hands, wrists, and feet are most frequently afflicted. Rheumatoid arthritis tends to be chronic, to produce crippling deformities, to have remissions and exacerbations, and to affect women two to three times more often than men (Masi & Medsger, 1979).

Rheumatoid arthritis, in its mildest form, causes little interference with normal activity. However, in its most severe form, rheumatoid arthritis can render the afflicted person wheelchair bound, house bound, or even bedfast (Ansell, 1969). As a result of its crippling effects, simply accomplishing the daily tasks of living can be a feat for the individual afflicted with this devastating disease. Nearly everything a person does in the course of a day involves some form of movement. If one simply stops to think about the daily activities which require some form of mobility, one would be astounded. Walking, dressing, eating, using the lavatory, getting oneself to and from work, getting oneself in and out of bed, moving up and down stairs, and obtaining things from shelves and drawers are just a few daily activities which the rheumatoid arthritic individual may find difficult to accomplish. These activities often require some alterations in performance in order for the individual to accomplish them. The degree of alteration depends upon the amount of mobility restriction experienced and the degree of joint pain encountered.

The level of functional status, however, is not the sole factor in determining a person's ability to continue to effectively perform tasks. As early as 1959 Margolies reported that no direct correlation existed between an ambulatory arthritic person's functional status and his presence on the job. Such a finding raises the question of what prompts some arthritic individuals to continue a full-time job and other arthritics to become unemployable? Social and personal factors, no doubt, are important variables to consider in this relationship.

As a follow-up of Margolies (1959) study, Moos and Solomon (1965) sought to relate personality factors to the course of illness in women afflicted with rheumatoid arthritis. The subjects were divided into two groups and an attempt was made to match the subjects for stage of disease progression and illness duration. Moos and Solomon (1965) found women in the "poorly functioning" group felt a great deal of acute distress and complained of a wide variety of psychological symptoms. These findings indicated this group found it difficult, if not impossible, to effectively cope with the related burdens of their illness. By comparison, the group which was functioning "relatively well" was apparently able to cope with illness in a more psychologically successful and adaptive way. Thus it appeared, according to Moos and Solomon (1965), a woman's ability to cope effectively with the stressful effects of rheumatoid arthritis had an influence upon her ability to carry out job related functions.

Etiology. Knowledge of the etiology and pathogenesis of rheumatoid arthritis is limited regardless of its prevalence and destructive nature. However, the most widely accepted theory concerning its causality is one related to immune factors. According to present concepts, an unidentified antigen stimulus brings about antibody production by the plasma cells in the synovium. As the antigen-antibody complexes are formed, the antibody is altered, becomes foreign, and stimulates production of the rheumatoid factor (whose roles remains uncertain) by synovial plasma cells and regional lymph nodes (Gilliland & Mannik, 1974). The antigen-antibody complexes may fix, complement, and induce phagocytosis and lysosomal enzyme release. Lysosomal membranes in rheumatoid synovium generally are fragile due to the released enzymes which give rise to tissue damage and inflammation (Masi & Medsger, 1979).

In addition to the immunological theory of rheumatoid arthritis, one must not forget the relationship that exists between stress, psychological well-being, and immunity phenomena. As Cohen (1979) points out, increased stress and decreased psychological well-being can lead to an increased incidence in the development of illnesses brought on by alterations in one's immunity functions. One theory holds that this occurs due to the fact that stress can increase one's physiological responses, such as the production of adrenal cortical and adrenal medullary hormones. The increased levels of corticosteroids can result in decreased immunological responses (Southram, 1969; Amkraut & Solomon, 1974) which can lead to a lowered body resistance and an increased susceptibility toward the development of some illnesses. Since immunity phenomena are felt, at this time, to be a major factor in the development of the disease, then an increased severity in the pathophysiological aspects of the illness could result if a sense of psychological well-being does not exist.

Research findings have demonstrated the occurrence of stressful events can lead to an exacerbation of symptoms in the arthritic individual (Ludwig, 1952; Shocket, Lisonsky, Schubart, Fiocco, Kurland, & Pope, 1969). If a rheumatoid arthritic woman does not manifest a sense of psychological well-being, the physiological control of her disease could become increasingly ineffective due to alterations in her "immune balance." The question then arises as to what factors contribute most extensively to psychological well-being in the rheumatoid arthritic woman.

Diagnosis. Early diagnosis and subsequent treatment are important in controlling the disabling effects of this crippling disease.

Diagnosing a person afflicted with rheumatoid arthritis is based upon findings from the person's history, specific laboratory tests, and bone and joint X-rays. A definitive diagnosis of rheumatoid arthritis is not made from any one symptom, but rather from a combination of pertinent findings (Williams, 1974; Masi & Medsger, 1979).

To diagnose the presence of rheumatoid arthritis, a physician needs to: 1) review the person's complaints and symptoms; 2) conduct a general physical examination, paying particular attention to the condition of the person's joints and noting such symptoms as loss of motion and inflammation; 3) note the presence of rheumatoid nodules; and, 4) identify the presence of extraarticular features such as pleural effusions, pneumonitis, pericarditis, and carpal tunnel syndrome (Williams, 1979; Katz, 1977).

A variety of laboratory tests need to be conducted in an attempt to assist in making a diagnosis. These tests most likely will include: an erythrocyte sedimentation rate, a C-reactive protein test, a white blood cell count, a red blood cell count, and a latex agglutination test to determine the presence or absence of rheumatoid factor (Masi & Medsger, 1979). None of these tests are 100% accurate or specific for rheumatoid arthritis, but their results taken together with the individual's X-ray findings, history, and physical examination results will assist in making a definitive diagnosis.

The definitive diagnosis of rheumatoid arthritis, like that of many diseases, can be made with ease in most instances, but with difficulty and uncertainty in others. To aid the physician in making a diagnosis, the American Rheumatism Association has drawn up eleven criteria for the diagnosis of rheumatoid arthritis. These eleven criteria include:

1) morning stiffness, 2) pain on motion or tenderness in at least one joint, 3) swelling in at least one joint, 4) swelling of at least one other joint, 5) symmetrical joint swelling with simultaneous involvement of the same joint on both sides of the body, 6) subcutaneous nodules over bony prominences, on extensor surfaces, or in juxtaarticular regions, 7) roentgenographic changes typical of rheumatoid arthritis, 8) positive agglutination test, 9) poor mucin precipitate from synovial fluid, 10) characteristic histologic changes in synovial membrane, and 11) characteristic histologic changes in nodules (Masi & Medsger, 1979).

The American Rheumatism Association suggests that depending upon the definitiveness of the features presented by the individual, four grades of diagnosis can be made: classical, definite, probable, and possible rheumatoid arthritis (Katz, 1977). Classical rheumatoid arthritis is diagnosed only if at least seven of the eleven criteria are present and if the total duration of joint symptoms, including swelling, has been continuous for at least six weeks. Definite rheumatoid arthritis is diagnosed when at least five of the eleven criteria are present and if a total duration of joint symptoms, including swelling, has been continuous for at least six weeks. Probably rheumatoid arthritis is diagnosed when at least three of the eleven criteria are present with at least a six-week duration of joint symptoms. Possible rheumatoid arthritis is diagnosed when two of the eleven criteria are present with a three-week duration of joint symptoms (Katz, 1977; Masi & Medsger, 1979).

Treatment. Although the definite cause of rheumatoid arthritis is not yet known, effective treatment methods to control the disease and to prevent deformities and crippling effects exist. The key to success in controlling the effects of rheumatoid arthritis is to develop a treatment program that consists of a combination of therapeutic measures (Swezey, 1979; Katz, 1977). Any combination of the following measures may be involved at any time in a full treatment program: medication, rest and/or exercise, heat and/or cold therapy, surgery, and rehabilitation. The primary purpose in utilizing these measures are to: relieve pain, reduce joint inflammation, prevent joint damage, prevent deformities, and keep joints moveable and functionable (Swezey, 1979; Masi & Medsger, 1979). Dramatic overnight success cannot be expected from these treatment modalities. Improvement occurs slowly and it takes a great deal of patience and confidence on the part of the rheumatoid arthritic individual to deal with the various aspects of this physically disabling and deforming disease.

Psychosocial aspects. Coping with the existence of pain, disabling effects, and/or deformities brought on by rheumatoid arthritis is not an easy task for an afflicted individual (Zeitlin, 1977). The rheumatoid arthritic individual is likely to live a life filled with unpredictability due to not knowing when pain may occur, when stiffness may result, whether deformities may set in, or whether disabiltiy will occur. Just how a rheumatoid arthritic individual goes about coping with the ramifications of this illness remains an unanswered issue in reported research.

Early studies. Researchers in the past attempted to approach the psychosocial aspects of rheumatoid arthritis by conducting studies on personality patterns of individuals afflicted with the disease (Cobb, 1959; Cormier, Wittkower, Marcotte, & Forget, 1957; Ludwig, 1952). They focused on the issue of whether a relationship existed between one's personality patterns and one's diagnosed existence of rheumatoid arthritis. A review of these studies indicates that the investigators found the majority of people afflicted with rheumatoid arthritis to: 1) have less loving mothers and more authoritarian fathers (Cleveland & Fisher, 1960; Blom & Nicholls, 1954); 2) manifest a greater tendency to divorce (Cobb, Miller, & Wieland, 1959); 3) over react to their illness (Wiener, 1952); and, 4) be self-conscious, conforming, and shy (Cleveland & Fisher, 1960; Mueller & Lefkovitz, 1956). These findings were accepted until the late 1960's as the framework for a theory which indicated that a person diagnosed with rheumatoid arthritis manifested a distinct morbid personality pattern.

The theory dealing with a distinct premorbid rheumatoid arthritic personality pattern has been repeatedly questioned in light of the existence of basic methodological and design deficits in the early psychological research investigations (Weiner, 1977). In 1964 Moos began questioning the research done by many of the early psychosocial researchers. As a result, he wrote a classical and frequently cited summation of existing research problems related to personality factors of the arthritic individual. Moos (1964) pointed out that because a number of methodological and design deficits existed in the early research studies, it was difficult to compare findings and to draw sound conclusions. The methodological and design deficits Moos (1964) identified were: 1) a gross lack of information about specific patient characteristics; 2) radical differences in theoretical orientation and methodology; 3) lack of adequate and comparable control groups; 4) difficulty in obtaining clear-cut behavioral predictions from personality theories which hypothesize that similar underlying personality traits may express themselves in different and perhaps opposite ways; 5) difficulty in assessing how closely interview and self-report data resemble the "real" person; 6) an assumption that particular personality patterns antedate the disease onset; and, 7) an over-emphasis on "negative" personality traits. Moos and Solomon (1964) suggested that although an individual with arthritis may exhibit many neurotic traits, this tendency does not necessarily indicate a pre-existing personality pattern specific to this population. Individuals with or without other chronic illnesses may, in fact, demonstrate similar behavioral patterns.

Spergel, Ehrlich, and Glass (1978) concurred with Moos and Solomon's (1964) view concerning the lack of sound empirical evidence to support the theory of the existence of a distinct premorbid rheumatoid arthritic personality. In their preliminary comparison of psychological test scores between a group of individuals with rheumatoid arthritis and individuals with other chronic illnesses, they concluded that the contention of a premorbid personality type for rheumatoid arthritic individuals failed to be supported. Such a finding suggests the behavioral manifestations demonstrated by the rheumatoid arthritic individual may be a response to the ramifications of the illness.

Recent studies. Several investigators have begun to turn their focus away from the issue of a specific premorbid arthritic personality and have redirected their energies toward looking at how the existence of rheumatoid arthritis in an afflicted person may, in fact, influence one's personality characteristics (Robinson, Kirk, & Frye, 1971). Thus psychosocial researchers are looking at specific personality characteristics in the rheumatoid arthritic person which they believe may have been developed by, or may have been intensified by, the presence of this devastating disease.

Robinson, Kirk, and Frye (1971) compared the personality characteristics of rheumatoid arthritic patients to control groups of patients with diabetes, tuberculosis, and hypertension. Groups of "new" patients (medically diagnosed for ten months or less) and "old" patients (medically diagnosed for more than three years) were formed for each of the illnesses being studied in order to examine the temporal effects of disease on personality traits. The subjects in the old and in the new groups were matched on the basis of race, sex, patient status (clinic or private physician), and age. Although the subjects were not matched for socioeconomic class, an inspection of the data indicated in terms of income and education the groups were reasonably balanced. Each subject was administered Form A of Cattell's (1962) personality factor questionnaire. Inspection of Robinson, Kirk, and Frye's (1971) findings indicated that only in the rheumatoid arthritic profiles did the "old" and "new" patient groups demonstrate a significant within group correlation ($r = 0.8$, p 0.001). This finding, according to Robinson, Kirk, and Frye (1971), suggested that devastating changes brought about by rheumatoid arthritis could force afflicted patients into a common personality type regardless of their premorbid personality.

In order to further confirm their contention that rheumatoid arthritic individuals manifest certain characteristics as a result of their illness, Robinson, Kirk, Frye, and Robertson (1972) conducted a study comparing personality factor profiles of rheumatoid arthritic patients to personality factor profiles of patients afflicted with other premorbid diseases. The findings of this study, although not conclusive, did seem to support the hypothesis that personality traits observed as being characteristics of rheumatoid arthritic patients (when compared to nonarthritic individuals) were disease functional and were not predisposed by the development of this desease. The contention that rheumatoid arthritis could alter one's personality characteristics appears feasible in light of the disabling effects this illness has upon one's body.

It is apparent that psychosocial research dealing with rheumatoid arthritis certainly has taken a circular course over the past three decades. The theoretical focus has gone from suggesting that one's premorbid personality contributed to the cause of the illness to suggesting that the presence of rheumatoid arthritis contributes to one's personality characteristics. Recognizing that recent research findings have suggested rheumatoid arthritis does have deleterious effects upon one's personality characteristics (Gardiner, 1980; Earle, Perricone, Maultsby, Perricone, Turner, & Davis, 1979), it appeared only reasonable to pose a question related to what factors might influence the rheumatoid arthritic individual's psychological well-being. To date no published research findings exist which speak to what factors influence psychological well-being in rheumatoid arthritic individuals.

Thus in view of the facts that: 1) the theory concerning the existence of a premorbid rheumatoid arthritic personality has been inadequately supported; 2) present research is suggesting that the presence of rheumatoid arthritis has deleterious effects upon one's personality characteristics; 3) a relationship has been demonstrated to exist among stress, psychological well-being, and one's susceptibility to disease; and, 4) no one has looked at the issue of psychological well-being in the rheumatoid arthritic woman, it is significant to focus research on the factors affecting psychological well-being in the rheumatoid arthritic woman.

Purpose of the Study

The purpose of this study was:

> To identify and describe the nature of the relationships which exist among specific factors (i.e., demographic/illness characteristics, coping focus, functional status, and social support) which could affect psychological well-being in the woman afflicted with rheumatoid arthritis.

To carry out the purpose of this study, a conceptual framework that would explain the relationships between demographic/illness characteristics, coping focus, functional status, social support, and psychological well-being was needed. This conceptual framework was viewed as the primary means by which conceptual linkages were identified and the framework from which study findings were explained in a broader theoretical perspective.

CHAPTER III

CONCEPTUAL FRAMEWORK

In this chapter the conceptual basis of the study is presented and discussed. The research questions and hypotheses also are addressed.

Lazarus' Paradigm of Stress and Coping

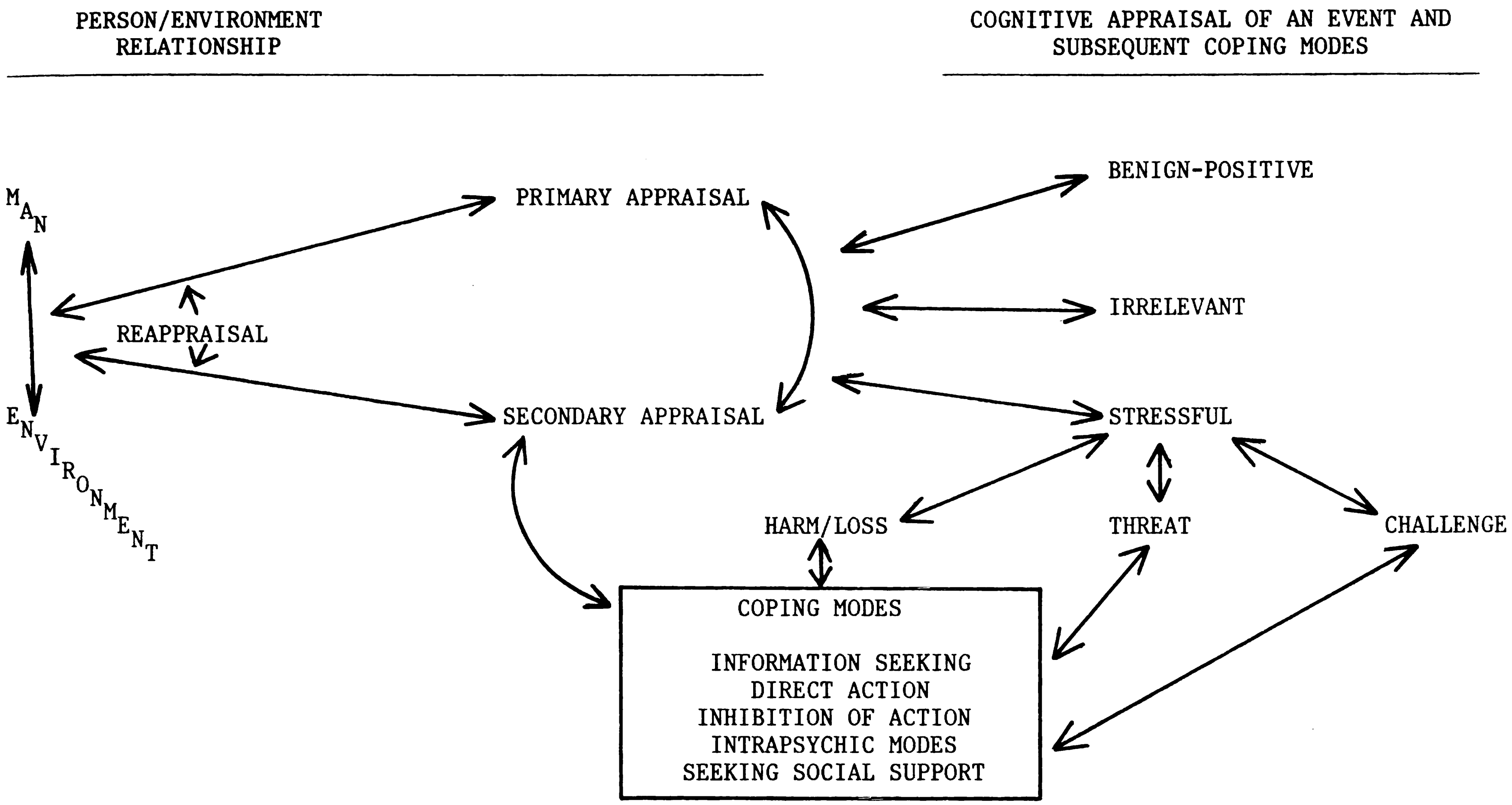
The purpose of this study was to identify and describe the nature of the relationships that exist among factors that contribute to psychological well-being in the rheumatoid arthritic female. After a careful review of theoretical frameworks of potential relevancy, Lazarus' paradigm of stress and coping was chosen as the framework for this study. Lazarus formulated his paradigm nearly two decades ago and has consistently refined and revised his original theoretical insights (1966; 1978). His work is not only representative of theoretical positions relevant to this study, but stands at the forefront of such research.

Lazarus' (1978) approach to stress and coping is one of cognition, transaction, and perception. In other words, the way in which a person appraises or construes his or her relationship with the environment determines whether or not the individual perceives his/her situation as a stressful event. Psychological stress, according to Lazarus (1978), consists of the demands that tax or exceed avaiable resources (internal and external) as appraised by the individual involved.

Psychological stress, be it positive or negative, does not reside exclusively in the environment nor in the person. Rather psychological stress arises from the transaction between these two components. Stress develops from the adaptational relationship between an individual and his/her environment as cognitively appraised by the individual. This transaction means that the environment and the person influence each other mutually during the course of an encounter. Thus, the emphasis is: 1) the process or dynamics of what is happening in any given stressful event, and 2) how changes are occurring in what is happening. The transaction is not a static process, but is a dynamic one.

The mental process of placing an event in one of three evaluative categories (benign-positive, irrelevant, or stressful)related either to its significance for the individual's well-being or to the available coping resources or options, Lazarus (1978) calls cognitive appraisal. This appraisal consists of two major forms: primary appraisal and secondary appraisal.

Primary appraisal is the process of evaluating the significance of the transaction as it relates to a person's well-being. Lazarus and Launier (1979) believe primary appraisal, as depicted in Figure I, comes in three evaluative forms: 1) irrelevant, 2) benign-positive, or, 3) stressful. According to the paradigm, irrelevant appraisal exists if the individual considers the appraised event to have no implications for his/her well-being in the present. A benign-positive event is one which the individual regards as indicating security or a positive state of affairs. In other words, the individual believes that all is well. By comparison, the third evaluative form of primary appraisal, stressful, is one which some negative evaluation of one's present or future state



Lazarus' Paradigm of Stress and Coping as Perceived by the Investigator

Figure I

of well-being exists. Stressful primary appraisal, as depicted in Figure I, Lazarus and Launier (1979) believe, occurs in three forms: 1) harm/loss, 2) threat, or 3) challenge. Harm/loss refers to damage or injury that has already taken place, such as loss of physical function, loss of a loved one, or loss of social or self-esteem. Threat, according to Lazarus and Launier (1979), refers to harm or loss that has not yet occurred, but is anticipated. Challenge, the third form of stressful appraisal, is a situation in which the opportunity for growth, mastery, or gain is perceived. In the appraisal of challenge the individual perceives a potential harm in the transaction between himself/herself in his/her environment, yet there is a positive tone in the transaction instead of a negative one.

Seconday appraisal, the second major appraisal form is the process of evaluating the significance of the transaction between man and his environment as it relates to available coping resources and options (See Figure I). This appraisal form is important in shaping both the coping activities utilized by the individual under psychological stress and the primary appraisal itself. As Lazarus and Launier (1979) point out, primary and secondary appraisal influence each other and can occur almost simultaneously. Secondary appraisal does not necessarily have to follow primary appraisal, although it can, nor should it be considered less important than primary appraisal. Both appraisal forms are vital and equally important in the person's cognitive appraisal of an event.

In addition to primary and secondary appraisal, the act of reappraisal also takes place. Reappraisal, according to Lazarus (1978), is the feedback from changes in the person-environment relationship and from reflection as the transactional process develops (See Figure I). Reappraisal allows for changes in the person's evaluation of the event.

For example, an event may initially be deemed stressful by the individual based upon his/her primary and secondary appraisals. However, due to transactional changes between the person and his/her environment, the event may be reappraised and evaluated as irrelevant by the individual.

Once the individual has perceived an event as stressful, he/she then mobilizes his/her coping modes. Coping, according to Lazarus (1978), consists of efforts (action-oriented and intrapsychic) which manage environmental and internal demands that are taxing or exceeding a person's resources. Coping, Lazarus (1978) believes, has two major purposes or focuses: 1) problem-solving which involves changing the situation for the better (if possible) by either altering one's own offending action or by altering the damaging or threatening environment, and 2) regulation of emotional distress (palliative) which involves managing the somatic and subjective components of stress related emotions so that they do not lead to damage or destruction of moral or social functioning. These two purposes, Lazarus (1978) believes, are accomplished by five coping modes which can be oriented in the past, the present, or the future. These coping modes as depicted in Figure I include: 1) information seeking; 2) direct action; 3) inhibition of action; 4) intrapsychic processes; and, 5) seeking social support (Cohen & Lazarus, 1979).

Information seeking involves evaluating the characteristics of a stressful event for information required in order to make a coping decision or to reappraise the damage or threat. Besides providing a basis of action, this coping mode also can provide a palliative function by making the person feel better by rationalizing a past decision.

Direct action, the second coping mode, is anything an individual does, with the exception of cognition, to handle stressful transactions. Actions which come out of this coping mode can be aimed at the self or at the environment. Such actions, according to Lazarus and Launier (1979), are as diverse as the environmental demands and personal goals which create them. Fleeing, taking medications, carrying out physical exercises, or adhering to a necessary dietary regimen are but a few examples of direct action coping.

Inhibition of action, the third coping mode, involves the holding back of action impulses. This coping mode would be required when taking action that would inflict harm upon the individual. The individual would want to inhibit his/her action, particularly if the action poorly fit the requirements of the transaction. Thus, inhibition of action involves taking no action.

The fourth coping mode, according to Lazarus' paradigm (1978), includes intrapsychic modes which may be focused on the self or on the environment. These modes are mainly palliative since they basically make the person feel better by reducing or minimizing emotional stress. In short, they are the things which a person says to himself/herself or they are forms of attention deployment. Intrapsychic modes can include self-deceptive mechanisms (i.e., denial) and avoidance efforts (i.e., isolation); however, they need not do so. For example, during a stressful event a person may confront the situation and at the same time keep telling himself/herself to remain calm. The individual's act of telling himself/herself to remain calm can be a non-deceptive, intrapsychic mode of coping.

Social support, the fifth coping mode, involves turning to others for help and succor (Cohen & Lazarus, 1979). The literature provides growing evidence that ill persons fare much better if they can maintain and utilize social relationships (Cobb, 1976; Kaplan, Cassel, & Gore, 1977). Hence the presence of social support appears to enhance some people's ability to effectively deal with a stressful event.

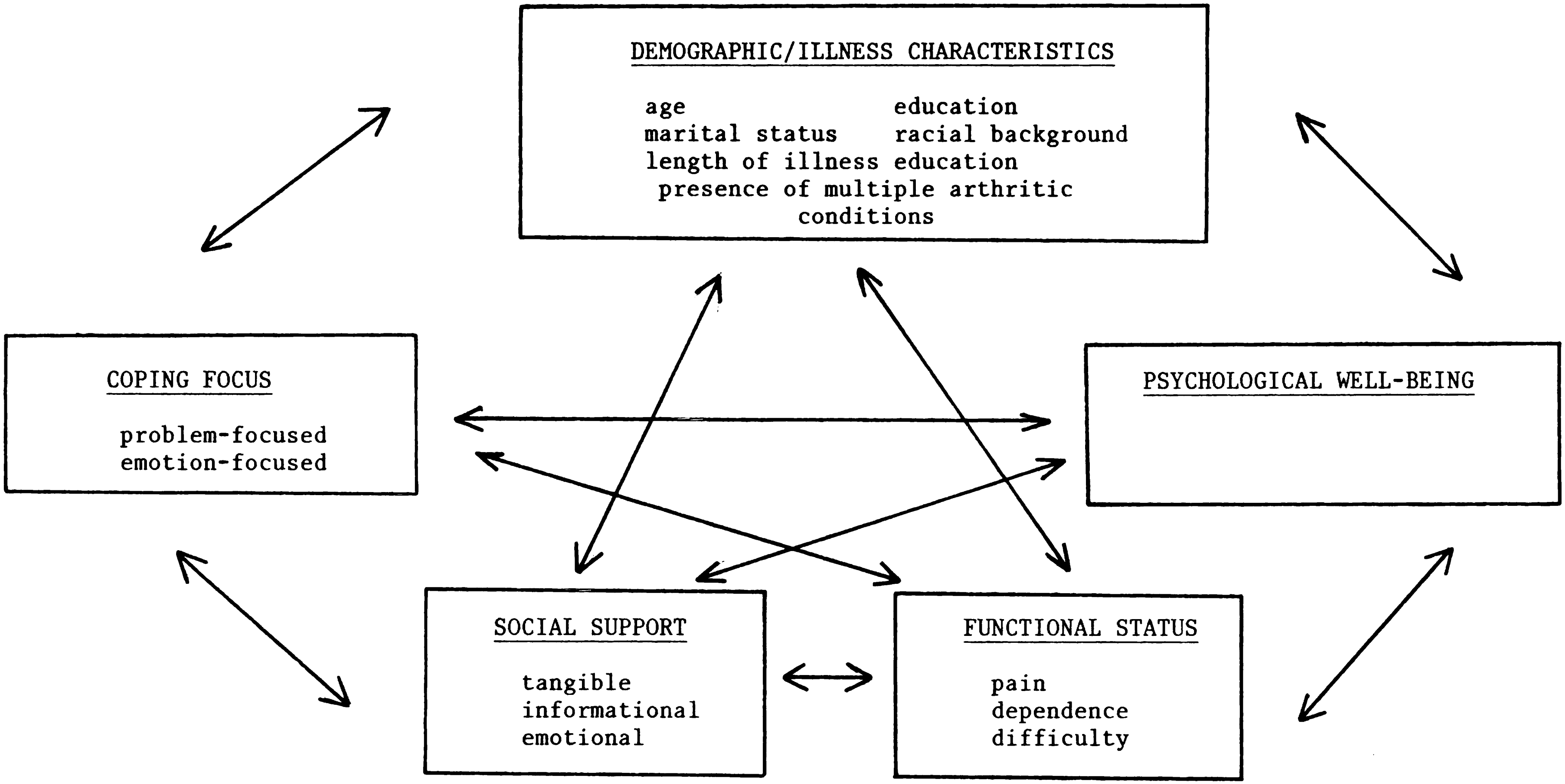
Lazarus (1978) points out that an individual will use any combination or all of these modes as he attempts to deal with an event that he or she appraises as stressful. The combination of coping modes used by the person is highly individualistic and often depends upon one's past experience, one's dispositional makeup, and the presenting environmental factors. No doubt a person will demonstrate patterns of coping which are more or less characteristic of him/her. However, it must be remembered that any individual's coping patterns are complex enactments of behavior.

Lazarus' Paradigm as It Relates to this Study

How then does Lazarus' paradigm of stress and coping relate to this study? As previously discussed, Lazarus' paradigm identifies two major purposes or focuses of coping--problem-solving and palliation (emotion-focused). Therefore, it seemed feasible to look at the rheumatoid arthritic individual's coping focus as a factor which could affect psychological well-being (See Figure II). Although an individual will carry out both types of coping focus simultaneously, one type of focus should tend to predominate in certain stressful situations, such as in illness. Folkman and Lazarus (1980) found in their study of 100 adequately functioning middle-aged adults that emotion-focused coping often was associated with health related stresses. Therefore, coping focus appears to be a factor which might significantly influence the rheumatoid arthritic woman's psychological well-being.

In addition to coping focus, the investigator believed, in the case of the rheumatoid arthritic female, functional status (See Figure II) also might have a decided effect upon psychological well-being. Psychological well-being may tend to be diminished as one's disease caused an increase in dependence, difficulty, and pain related to activities of daily living. In addition, the factor of functional status also might have a decided influence upon which coping focus would predominate in the rheumatoid arthritic woman. It was speculated that a woman's inability to move about freely at her own will could alter her predominate coping focus. The afflicted woman, no doubt, believes regardless of what problem-solving maneuver she takes (i.e., carrying out prescribed therapies or seeking additional information), she cannot alter the progressively debilitating nature of her disease. Therefore, the investigator believed it was necessary to examine the relationships which exist between each component of functional status and each component of coping focus, as well as the relationships which exist between each component of functional status and psychological well-being.

The mode of social support (See Figure II) also may play a vital role in the rheumatoid arthritic individual's psychological well-being. Although Lazarus' coping focuses incorporate the mode of social support, along with the other four modes, the investigator selected to examine this mode separately as a possible factor which could significantly influence a woman's psychological well-being. This decision was made in



Conceptual Scheme:
Relationships Among Factors
Affecting Psychological Well-being
in the Rheumatoid Arthritic Woman

Figure II

light of previous research findings which have provided evidence to support the fact that ill persons fare much better if they can maintain and utilize social relationships (Cobb, 1976; Kaplan, Cassel, & Gore, 1977). The presence of social support, whether tangible, informational, or emotional, appears to enhance some individual's ability to effectively deal with a stressful situation such as illness. Thus to examine the possibility of relationships between each type of social support and psychological well-being in the rheumatoid arthritic woman seemed important. In addition to examining this potential relationship, one must examine possible relationships between each type of social support and each component of coping focus, and between each type of social support and each component of functional status. It is quite possible that the existence of social support could have a bearing upon the predominate type of coping focus utilized by a woman with rheumatoid arthritis, as well as her level of functional status. To date, no published research findings exist to substantiate either claim.

Demographic characteristics (See Figure II) such as age, sex, education, occupation, income level, marital status, and racial/ethnic background could play a vital role in affecting one's psychological well-being. For example, Pearlin and Schooler (1978) found while age had no decided influence upon one's ability to cope, the factors which did have a decided effect were sex, education, occupation, and income level. Men who were well educated and affluent tended more often to demonstrate attributes for inhibiting stressful outcomes of life problems. Thus to examine education, income level, and occupation of the rheumatoid arthritic woman in relationship to psychological well-being appeared to be of value. In light of Pearlin and Schooler's

(1978) findings, it seemed likely that being female, having less education, and being less affluent would not contribute to psychological well-being. The investigator, however, decided to control for the variable of sex since women contract rheumatoid arthritis two to three times more often than men (Masi & Medsger, 1979). In the interest of not being able to obtain an adequate sample size of men, only women were used in this study.

The characteristics of racial/ethnic background and marital status needed to be examined in regard to psychological well-being. Research studies whose methods examined these variables in this manner could not be located. Therefore, racial/ethnic background and marital status needed to be looked at in regard to what part they play in the rheumatoid arthritic woman's psychological well-being.

It is possible that the illness characteristics (See Figure II), length of illness, and existence of multiple arthritic conditions could have an influence upon how one copes with rheumatoid arthritis. One may speculate that the longer an individual has an illness the more likely he/she will manifest a sense of psychological well-being. To contend that having more than one arthritic condition could alter one's psychological well-being also seems feasible. Research findings which support either of these speculations could not be located. Thus length of illness and presence of multiple arthritic conditions required examination in view of the rheumatoid arthritic woman's psychological well-being.

The relationships which exist between each of the demographic characteristics (age, marital status, education, occupation, income level, and racial/ethnic background) and coping focus, functional status, and social support needed to be examined. No empirical evidence could be located which examined the relationships between demographic characteristics and functional status. However, in regard to demographic characteristics and coping focus, Folkman and Lazarus (1980) in their study of adequately functioning men and women, found age did not demonstrate an effect upon the type of coping focus used. They also found that men tended to use problem-focused coping more than women, but only at work. No gender differences were found in the use of emotion-focused coping. Schaefer, Coyne, and Lazarus (in press) examined demographic characterics in relationship to social support and found that employed women received significantly less emotional support from their spouses than did nonemployed women. The variables of age, education, and income also were examined in relationship to social support by these researchers. They found: 1) older women reported less emotional support from friends than younger women; 2) no associations existed between years of education and types of social support utilized; 3) women with household incomes of $20,000 or less reported less emotional support from their spouses than women with incomes greater than $20,000 per year. Thus to examine the relationships that exist between each of the demographic characteristics and each component of functional status, as well as further examine the relationships that exist between each of the demographic variables and each component of coping focus and each type of social support was required.

The relationships which exist between each of the illness characteristics (length of illness and existence of multiple arthritic conditions) and coping focus, functional status, and social support needed to be examined. No empirical evidence could be located which described a relationship between each of the illness characteristics and either coping focus, functional status, or social support.

The final factor and outcome variable of this study, psychological well-being, was examined in light of how the rheumatoid arthritic woman described her general sense of well-being. As Pearlin and Schooler (1978) point out, effectiveness in coping behavior cannot be judged solely on how well it removes the problem or hardship from the individual's life. Rather, coping behavior needs to be judged on how well it enhances one's general sense of psychological well-being. Therefore, this study operationalized the outcome variable as the individual's report of a generalized sense of well-being.

Research Questions, Hypotheses, and Operational Definitions

Based upon the previous discussion, the following research questions and hypotheses were formulated:

Major Research Question:

What is the nature of the relationship among the rheumatoid arthritic woman's demographic/illness characteristics, coping focus, social support, functional status, and psychological well-being?

Sub-questions:

1) What is the nature of the relationships between each component of coping focus and each component of functional status in the rheumatoid arthritic woman?
2) What is the nature of the relationships between each demographic/illness characteristic and each component of coping focus in the rheumatoid arthritic woman?

3) What is the nature of the relationships between each component of coping focus and psychological well-being in the rheumatoid arthritic woman?
4) What is the nature of the relationships between each component of functional status and psychological well-being in the rheumatoid arthritic woman?
5) What is the nature of the relationships between each component of coping focus and each type of social support in the rheumatoid arthritic woman?
6) What is the nature of the relationships between each type of social support and psychological well-being in the rheumatoid arthritic woman?
7) Which is more highly correlated, social support or coping focus, in relationship to psychological well-being in the rheumatoid arthritic woman?
8) What is the nature of the relationships between each component of functional status and each demographic/illness characteristic in the rheumatoid arthritic woman?
9) What is the nature of the relationships between each component of functional status and each type of social support in the rheumatoid arthritic woman?
10) What is the nature of the relationships between each demographic/illness characteristic and each type of social support in the rheumatoid arthritic woman?
11) What is the nature of the relationships between each demographic/illness characteristic and psychological well-being in the rheumatoid arthritic woman?

12) Which combination of variables act as the best predictors of psychological well-being in the rheumatoid arthritic woman?

Hypotheses Based Upon the Research Sub-questions

Question #1

As dependence upon others increases in the rheumatoid arthritic woman, so does emotion-focused coping.

As pain increases in the rheumatoid arthritic woman, so does emotion-focused coping.

As difficulty in performing tasks increases in the rheumatoid arthritic woman, so does emotion-focused coping.

Question #2

No hypotheses.

Question #3

No hypotheses.

Question #4

As dependence upon others increases in the rheumatoid arthritic woman, psychological well-being decreases.

As pain increases in the rheumatoid arthritic woman, psychological well-being decreases.

As difficulty in performing tasks increases in the rheumatoid arthritic woman, psychological well-being decreases.

Question #5

No hypotheses.

Question #6

As tangible support increases in the rheumatoid arthritic woman, so does psychological well-being.

As informational support increases in the rheumatoid arthritic woman, so does psychological well-being.

As emotional support increases in the rheumatoid arthritic woman, so does psychological well-being.

Question #7

No hypotheses.

Question #8

No hypotheses.

Question #9

No hypotheses.

Question #10

No hypotheses.

Question #11

As educational level increases in the rheumatoid arthritic woman, so does psychological well-being.

As income level increases in the rheumatoid arthritic woman, so does psychological well-being.

Question #12

No hypotheses.

Operational Definitions

Demographic/Illness Characteristics

One's age, educational level, marital status, income level, occupation, racial/ethnic background, length of illness, and existence of multiple arthritic conditions as indicated by the subject and recorded by the investigator on the demographic/illness data questionnaire.

Coping Focus

One's self-reported purpose of coping (problem-focused or emotion-focused) as measured by Lazarus and associates' Coping Questionnaire (1977).

Functional Status

One's self-reported ability to carry out eighteen specific activities of daily living in light of dependence upon others, pain, and difficulty in performing tasks as measured by Jette's Functional Status Index (1978).

Social Support

One's self-reported available social support (tangible, informational, and emotional) as measured by Cohen and Lazarus' Social Support Questionnaire (1977).

Psychological Well-being

One's self-reported positive affect and negative affect as measured by Bradburn's Morale Scale (1965).

Thus the purpose of this research was to examine the relationships that exist among the rheumatoid arthritic woman's demographic/illness characteristics, coping focus, social support, functional status, and psychological well-being. The goal was to determine the extent to which these phenomena co-existed and/or co-related with one another, the emphasis being placed on their co-relational, and not causal, relationship.

Based upon the conceptual framework, the research questions, and the operational definitions, the methods of data collection and data analysis were determined.

CHAPTER IV

METHOD

The purpose of this chapter is to delineate and describe the overall design of the study, the nature of the sample population, the research instruments, and the plan for data analysis.

Design

The design of this study was that of a cross-sectional survey. The main objective was to identify and describe the nature of the relationships which exist among the rheumatoid arthritic woman's demographic/illness characteristics, coping focus, social support, functional status, and psychological well-being. None of the aforementioned concepts and their respective variables were manipulated or controlled since the study was descriptive in nature.

To date limited research exists on the topic of coping with rheumatoid arthritis (Felton, 1981). In order to make initial attempts at identifying and describing some of the salient relationships which exist among the factors affecting one's sense of psychological well-being, a flexible and broadly scoped research design was necessary. Thus a survey design was selected for this study. In addition to its flexibility and broadness of scope, a survey design is naturalistic, thus strengthening its generalizability to the real world (Polit and Hungler, 1978).

The survey design has several limitations. Some of the specific limitations of this study include: 1) its inability to predict cause and effect; 2) the inability to explore in-depth aspects of psychological functioning; and, 3) cost and time demands placed on the investigator. However, in light of its flexibility, broadness in scope, and generalizability to the real world, the investigator believed that the strengths of the survey design far outweighed its weaknesses.

Setting

The subjects were obtained between January and May of 1981 from three Rheumatology Clinics housed in three large health care institutions located in a large urban area on the west coast. All three institutions were engaged in health care delivery, health care provider education, and health care research. The three health care facilities were selected for this study because they each medically treated between ten and twelve rheumatoid arthritic individuals weekly on an out-patient basis.

Two of the health care institutions were military establishments and provided care for active duty military personnel, retired military personnel, and authorized dependents of active duty and retired military personnel. The remaining health care institution was connected with a major university and provided health care to patients who had been referred by private physicians or by other health care facilities. Since these three health care facilities served different patient populations, utilizing all three of them aided in strengthening the generalizability of the findings of this study.

Characteristics of the Sample

Criteria for Subject Selection. All women who were diagnosed as classical or definite rheumatoid arthritics and who were seeking health care in the three previously mentioned health care facilites between January and May of 1981 were considered as possible subjects.

Criteria for inclusion and exclusion of the subjects selected for this study included women who:

1) could speak and read English
2) were at least 21 years of age
3) were diagnosed with classical or definite rheumatoid arthritis
4) were not known to have any psychiatric disorders.

These criteria were chosen for the following reasons. Since both the consent forms and the questionnaires utilized in this study were printed in English and since similar questionnaires have been administered in previous studies, predominantly to English-speaking people, only women who could read English were considered. In addition, only English-speaking women were used in the study since the investigator was fluent only in English. The potential subject's comprehension of English was determined by the investigator during the initial interview (See Appendix I). If the subject revealed at that time difficulties in using the English language or if the subject demonstrated problems in using the English language during the initial interview, she was considered ineligible for inclusion. During the data gathering process it was found through both the subject's self-reports and the investigator's observations that many of the women being seen at the Rheumatology Clinic located at a major university were not fluent in English. As a result, a smaller than expected proportion of the total number of subjects in this study were obtained from this clinic.

Women 21 years of age and older were selected since this study dealt only with adults and since rheumatoid arthritis can afflict women of all ages. The largest percentage of subjects, however, fell into the 40 to 69 years of age category. This was not surprising since the majority of individuals afflicted with rheumatoid arthritis are reported to be in this age range (Katz, 1977; Masi & Medsger, 1979).

Since this study was concerned with looking at rheumatoid arthritic women exclusively, only those diagnosed with classical and definite rheumatoid arthritis were selected. The subject's diagnosis was determined from the impressions listed in the history and physical section of her medical record. Some of the women had, in addition to rheumatoid arthritis, other forms of arthritis. However, they were few in number.

Finally, women with known psychiatric disorders were excluded since the presence of psychiatric disorders could alter one's usual pattern of coping. The presence of psychiatric disorders was determined both by reading the subject's chart and by confering with the subject's physician. Only two women considered for selection had to be excluded from this study for psychiatric reasons. Both of these women were identified by their physician as having active psychiatric problems.

Subjects obtained. Ninety-two women were interviewed for this study. Forty of the 92 women were from the Rheumatology Clinic housed in one of the military institutions; 34 were from the Rheumatology Clinic housed in the other military institution; and 18 were from the Rheumatology Clinic housed in a major university.

The samples from the two military institutions were representative of the female rheumatoid arthritic populations in these two institutions. All of the women but two (who refused to participate in the study) seen during the data gathering period in one of the military Rheumatology Clinics were interviewed. Four-fifths of the female rheumatoid arthritic population at the Rheumatology Clinic of the other military institution were interviewed. Some bias, however, may be present in the sample from the Rheumatology Clinic located at a major university since the fluency requirement limited the eligible portion of their female rheumatoid population to one-third.[1]

Sample eligibility and refusal rate. A total of 110 women were approached for possible inclusion in the study based upon the facts that these women were 21 years of age or older and were diagnosed with rheumatoid arthritis. Of these 110 women, 12 did not meet the remaining criteria for inclusion and 6 refused to take part in the study.

In addition to not meeting all criteria for inclusion and refusing to take part in the study, women being seen in the Rheumatology Clinic housed at a major university frequently had more than one health care appointment in the clinic which made it difficult to approach them for consent to take part in the study. Such appointments could include a visit with the physician, the nurse, the social worker, and/or the physical therapist.

The fact that a large proportion of subjects seen in the Rheumatology Clinic housed at a major university did not speak fluent English also impeded the acquisition of subjects. This was the major factor influencing the low number of subjects obtained from this clinic.

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[1] The Rheumatology Clinics located at one of the military institutions and at the major uni-versity maintained card files on most of their rheumatoid arthritic patients, making it possible to estimate the size of their population.

Demographic/Illness characteristics. The 92 women interviewed in this study ranged in age from 21 to 80 years, with 75% being between 40 and 69 years of age. Twelve percent of the women were in the 20 to 39 years of age category, with 13% being in the 70 to 89 years of age category (See Table 1). The high incidence of women in the middle-age and older age categories is not unexpected since rheumatoid arthritis tends to afflict predominately individuals in the 40 to 60 years of age category (Williams, 1979; Masi & Medsger, 1979).

Approximately 73% of the women in this study were married. Of the remaining 27%, 16% were widowed, 1% were separated, 6% were divorced, and 4% were never married (See Table 1). The relationship of marital status to the incidence of rheumatoid arthritis has never been examined in the literature. However, the high incidence of subjects in the married category should not be surprising in view of the fact that the majority of the subjects in this study were dependents of military personnel.

Racial/ethnic background was predominantly represented in the Caucasian category (68%). Of the remaining women, 13% were Black, 12% were Japanese, and 7% were either American Indian, Hispanic, or Filipino (See Table 1). The high incidence of Caucasian women was anticipated since this is the major ethnic group in the United States. What was unusual was the high incidence of the minority group, Japanese, in comparison to the minority groups, American Indian, Hispanic, and Filipino. This probably was due to the fact that a large Oriental population exists in the urban area utilized for this study.

Educational level ranged from 0 to 18 years of formal schooling. Twelfth grade was reported by 45% of the subjects as the highest grade

Table 1

Distribution of Age, Marital Status, and Race Among Subjects

Variable	Sample (N = 92)	Number and Percentage of Subjects in Sample*
Age (in years)	21-29	4 (04)
	30-39	7 (08)
	40-49	15 (16)
	50-59	35 (38)
	60-69	19 (21)
	70-79	11 (12)
	80-89	1 (01)
Marital Status	Married	67 (73)
	Widowed	15 (16)
	Separated	1 (01)
	Divorced	5 (06)
	Never Married	4 (04)
Race	American Indian	1 (01)
	Black	12 (13)
	Hispanic	4 (04)
	Japanese	11 (12)
	Filipino	2 (02)
	Caucasian	62 (68)

*Note: Numbers in parentheses are percentages. Percentage total for each group (Age, Marital Status, and Race) is 100%.

Table 2

Distribution of Socioeconomic Variables Among Subjects

Variable	Sample (N = 92)	Number and Percentage of Subjects in Sample*
Education	Some Elementary School	5 (05)
	8th Grade Graduate	3 (03)
	Some High School	11 (12)
	High School Graduate	41 (45)
	Some College	21 (23)
	College Graduate	5 (05)
	Graduate Study	6 (07)
Income (annual)	Below $10,000	13 (14)
	$10,000 - 19,999	35 (38)
	$20,000 - 29,999	24 (26)
	$30,000 - 39,999	11 (12)
	$40,000 - 49,999	7 (08)
	$50,000 - or more	2 (02)
Occupation**	Lesser Professional	3 (03)
	Minor Professional	1 (01)
	Clerical/Technical	3 (03)
	Skilled Labor	1 (01)
	Semi-skilled Labor	3 (03)
	Unskilled Labor	81 (89)

*Note: Numbers in parentheses are percentages. Percentage total for each group (Education, Income,and Occupation) is <u>100%</u>.

**Occupaional groupings were based on Hollingshead's (1965) Categories.

of school completed. Twenty percent of the women had less than a high school education, while 35% had more than a high school diploma (See Table 2). Considering that the majority of the women interviewed in this study were in a middle-age or older age category and were probably from a societal time frame when "woman's place" was in the home and not necessarily in the professional world, it is not unusual to find the majority of subjects had not completed more than a high school education.

Total household income reported by the women ranged from less than $5,000 to $60,000. However, the majority of incomes (64%) reported were between $10,000 and $30,000 annually. Fourteen percent of the women reported an annual household income of less than $10,000, while 22% reported an annual household income of $30,000 or more. The fact that 48% of the women were in an income level greater than $20,000 per year indicates that this sample earned an average annual household income ($18,000) slightly higher than the average United States family (Lane, 1981)(See Table 2). Most likely this was because the majority of these women were married to military personnel who had stable, substantial annual incomes.

The major occupation reported by the subjects in this study was that of housewife, with only 11% of the women being employed outside the home. The type of employment the subject most frequently engaged in was clerical, skilled, and semi-skilled in nature (See Table 2). The low employment rate of these women was not unusual since rheumatoid arthritic individuals tend to be forced out of the work force as their disease becomes increasingly disabling.

The length of time a person is afflicted with rheumatoid arthritis varies widely among individuals and the women in this study were not exceptions. The women reported having symptoms of rheumatoid arthritis from 1 to 69 years with 15 years being the average number of years of affliction (See Table 3). The wide range in the length of symptoms certainly demonstrates that rheumatoid arthritis can afflict a person for a lifetime.

The presence of multiple arthritic conditions is not uncommon in individuals afflicted with rheumatoid arthritis. One is likely to see such conditions as osteoarthritis, gout, Sjogren's Syndrome, systemic lupus erythematosis, and scleroderma in addition to rheumatoid arthritis. A number of these conditions tend to increase in incidence as one's age increases. Surprisingly, in this study, only 12 women were reported to have, in addition to rheumatoid arthritis, another related

Table 3

Distribution of Length of Illness and Multiple Arthritic Conditions Among Subjects

Variable	Sample (N = 92)	Number and Percentage of Subjects in Sample*
Length of Illness (in years)	1-9	34 (37)
	10-19	34 (37)
	20-29	14 (15)
	30-39	3 (03)
	40-49	4 (05)
	50-59	2 (02)
	60-69	1 (01)
Presence/Absence of Multiple Arthritic Conditions	Multiple Arthritic Conditions	12 (13)
	Only Rheumatoid Arthritis	80 (87)

*Note: Numbers in parentheses are percentages. Percentage total for each group (Length of Illness and Presence/Absence of Multiple Arthritic Conditions) is <u>100%</u>.

arthritic condition (See Table 3). This seemed unusual for this population in view of the fact that many of the subjects were in an older age category. Quite possibly these women did have multiple arthritic conditions which were not diagnosed, or at least not documented by health care professionals.

In summary, based on the entire sample (N = 92), the profile of a subject falling in the mean on a number of variables was as follows: she was 55 years of age, married, a housewife, a high school graduate, Caucasian, from a household which earned an average annual income of $18,000, afflicted with rheumatoid arthritis for an average period of 15 years, and not suffering from multiple arthritic conditions. This study's population appears to be representative of rheumatoid arthritic women in the United States with the exception of low representation from some of the ethnic groups, slightly higher than average annual income, and low incidence of multiple arthritic conditions (Katz, 1977; Masi & Medsger, 1979).

Instruments

Both interviewing and questionnaire administration were utilized.

Interview. All respondents were interviewed in person by the investigator. The interview was structured around the questions on the six questionnaires. This approach was selected in order to expedite the data gathering session since rheumatoid arthritic women often encounter difficulties in writing.

Table 4

Questionnaires Utilized for Measuring the Independent Variables and the Dependent Variable

Variables	Questionnaires
Independent	
Age	Demographic/Illness Data Questionnaire
Marital Status	
Occupation	
Income Level	
Educational Level	
Racial/Ethnic Background	
Length of Illness	
Presence/Absence of Multiple Arthritic Conditions	
Problem-focused Coping	Coping Questionnaire
Emotion-focused Coping	
Performance	Functional Status Index Questionnaire
Pain	
Difficulty	
Tangible Support	Social Support Questionnaire
Informational Support	
Emotional Support	
Dependent	
Psychological Well-being	Bradburn Morale Scale

Interview Sections (Refer to Table 4)

Demographic/Illness Data Questionnaire. The Demographic Data Questionnaire (See Appendix II) was an instrument designed by the investigator for the purpose of obtaining pertinent demographic/illness data on each subject. Every subject indicated her age, marital status, occupation, household income, educational level, racial/ethnic background, length of illness, and existence or lack of multiple arthritic conditons. Her responses were recorded by the investigator on the questionnaire. It took approximately five minutes to complete this questionnaire.

The reasons for administering this tool were to determine: 1) the nature of the population being studied, and 2) in what way the subject's demographic/illness information correlated with the subject's degree of functional status, coping focus, social support, and psychological well-being.

Coping Questionnaire. The Coping Questionnaire (See Appendix III) was a 64-item, self-report check list questionnaire designed in 1977 by Lazarus and associates for the purpose of eliciting information about strategies which an individual uses to deal with a specific event. Each woman was asked to identify and describe what aspect of rheumatoid arthritis she found most stressful over the past month. The investigator then recorded the description on the questionnaire. The check list was then applied to the event. The subject answered each item on the check list with a "yes" or "no" response. The investigator recorded the subject's response to each item on the questionnaire. It took approximately 15 minutes to complete this questionnaire.

Lazarus and associates (1977) have developed scales from the Coping Questionnaire check list which measure both problem-focused and emotion-focused coping. Problem-focused coping and emotion-focused coping are described by Lazarus (1978) in his paradigm of stress and coping as the two major functions of the coping process. Problem-focused coping was measured on a 24-item "P" scale and emotion-focused coping was measured on a 40-item "E" scale. The individual's score on each scale was determined by the number of yes responses accumulated for that scale. The internal consistency (alpha) has been estimated from previous studies to be 0.80 for the "P" scale and 0.81 for the "E" scale. These scales, reported to have a moderate intercorrelation (r = .45), are based on data gathered from 100 adequately functioning[2] 45 to 64 year old men and women each of whom reported an average of 13.3 stressful episodes during a year-long study (Folkman & Lazarus, 1980).

The validity of the classification of items on the Coping Questionnaire has been evaluated by Folkman and Lazarus (1980) by three methods. The first method consisted of an interdisciplinary group classification of each item on the problem- and emotion-focused scales. There was a 91% agreement among raters. A second method of support for the validity of the problem- and emotion-focused scales consisted of an experimental study where subjects were presented three vignettes depicting stressful situations. Over the three tests an average of 78% of the items were identified at the 0.05 level of significance as having

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[2] Adequately functioning, according to Folkman and Lazarus (1980), indicates an individual living in the community, holding a job and/or maintaining a household, and managing the vicissitudes of daily living without seeking professional psychiatric or psychological intervention.

the function that agreed with their scale membership. The third validating method consisted of a factor analysis of the Coping Questionnaire check list. Of the 24 items classified as problem-focused, 87% (21 of the items) correlated strongly with the first empirical factor. Of the 40 emotion-focused items, 70% (28 of the items) correlated strongly with the second empirical factor. While the empirically constructed factors were not purely problem- or emotion-focused, these findings clearly support the existence of a problem-focused scale ("P" scale") and an emotion-focused scale ("E" scale).

The Coping Questionnaire was selected for administration since: 1) this questionnaire evolved conceptually out of Lazarus' paradigm of stress and coping (the framework upon which this study was founded); 2) to date no other valid and reliable tool exists which is capable of measuring one's coping focuses; and, 3) this study consisted of a population similar in age to that used by Folkman and Lazarus (1980) in their work.

Functional Status Index (FSI) Questionnaire. The Functional Status Index (See Appendix IV) was a self-report questionnaire developed by Alan Jette (1978) for the purpose of assessing an individual's perception of his/her functional ability. The FSI defines function as including three distinct but related dimensions: the degree of dependence, the degree of difficulty, and the amount of pain experienced in performing specific activities of daily living (Jette, 1980a; Deniston & Jette, 1978).

The Functional Status Index consisted of 18 specific daily activities which were divided into five functional categories: gross mobility, hand activities, personal care, home chores, and interpersonal activities. Each of these 18 activities were rated according to the three dimensions of: degree of dependence, degree of difficulty, and amount of pain experienced in performing the activity. Degree of dependence was measured on a five-point scale where 1 = used no help, 2 = used equipment, 3 = used human assistance, 4 = used equipment and human assistance, and 5 = unable or unsafe to do the activity. The subject's degree of dependence score was determined by adding her ratings of the 18 activities on the five-point scale.

Degree of difficulty was measured on a twelve-point ladder scale with extreme ease being at the bottom of the ladder, neither difficult nor easy at the middle of the ladder, and extreme difficulty being at the top of the ladder. The subject's degree of difficulty score was determined by adding her ratings of the 18 activities on the twelve-point ladder scale.

For functional pain a twelve-point ladder scale also was used with no pain at the bottom of the ladder, moderate pain at the middle of the ladder, and extreme pain at the top of the ladder. The subject's degree of pain score was determined by adding her ratings of the 18 activities on the twelve-point ladder scale.

The subject was asked to respond to each item for all three dimensions (difficulty, dependence, and pain) on the questionnaire. The investigator recorded the subject's response to each item on the questionnaire. An average of thirty minutes was required to administer this questionnaire.

The Functional Status Index has been utilized in past research on individuals with either osteoarthritis or rheumatoid arthritis (Deniston & Jette, 1978). The most recent study using this questionnaire utilized a population of 149 adults afflicted exclusively with rheumatoid arthritis (Jette, 1980b). Therefore, this study's population was similar to Jette's population in that only adults afflicted with rheumatoid arthritis were used.

Jette's (1980b) analysis of the Functional Status Index using 149 adults afflicted with rheumatoid arthritis demonstrated internal consistency reliability levels from 0.66 to 0.91 across all categories except the category of dependence in hand activities. The category of dependence in hand activities achieved an internal consistency of less than 0.5. The average test-retest and inter-observer reliability values ranged from 0.75 to 0.81. Levels of inter-observer reliability generally equaled or surpassed levels of test-retest reliability (Jette, 1980b).

Deniston and Jette (1978) conducted a study examining the validity of the FSI as a system for measuring functional status on a group of elderly people (N = 95). They performed correlation analysis between: 1) the scores on the FSI and the client's assessment of his condition and 2) the scores on the FSI and professional staff's assessment of the client's condition. The relationship demonstrated between the client's subjective assessment of his condition and the FSI instrument scores was consistent, moderate, and positive. The instrument scores, however, did not correlate with professional assessments of the client's joint condition or to their ability to deal with arthritis. The professional assessments did correlate with each other. Client and professional definitions of joint conditions did appear to differ. Deniston and Jette (1978) contend that the overall assessment of functional status by the client, as opposed to the professional staff, continues to be the better criterion measure for assessing validity of the FSI at the present time. No doubt this is because a client's perception of his/her ability to perform activities of daily living will influence actual functional performance.

The Functional Status Index was selected for administration in this study rather than another functional classification system (Granger & Greer, 1976; Katz, Downs, Cash, & Grotz, 1970; Mahoney & Barthel, 1965; Moskowitz & McCann, 1957) due to its ability to assess: 1) the functional status of an individual in a time efficient manner and 2) the issue of functional ability specifically in the rheumatoid arthritic individual.

Social Support Questionnaire. The Social Support Questionnaire (See Appendix V) was designed by Cohen and Lazarus (1977) as a means of measuring separately the tangible, informational and emotional functions of social support. The questionnaire consists of two parts. Part One measures the tangible functions of social support while Part Two measures the informational and emotional functions of social support.

In Part One the subject was asked if there was someone to whom she could go for help in ten different situations in which support would be required. The situations ranged from being minor (being able to borrow a cup of sugar) to major (requiring care following an injury or illness) in nature. The investigator recorded the subject's response to each item on Part One of the questionnaire. The subject's tangible support score was computed by adding the number of incidents in which she indicated tangible support from another individual. An average of seven minutes was required to complete Part One of the Social Support Questionnaire.

In Part Two of the questionnaire, the section designed to measure informational and emotional support, the subject was asked to name her spouse, close friends, relatives, co-workers, neighbors, and supervisors. The subject was then asked to rate each person named on a scale of one to five (1 = not at all, 5 = extremely) for each of the following five questions.

1) How much did this person give you information, suggestions, and guidance over the last month that you found helpful?
2) How reliable is this person?
3) How much does this person boost your spirits when you feel low?
4) How much does this person make you feel he/she cares about you?
5) How much do you feel you can confide in this person?

The investigator recorded the subject's response to each item on Part Two of the questionnaire.

The subject's informational support score was the sum of her ratings of each person named in response to the question concerning information and guidance (Question #1). The remaining four questions were considered components of emotional support. Thus the subject's emotional support score was the sum of ratings for each category of potentially supporting persons (i.e., friends, spouse, relative) across the four questions concerning emotional support (Questions #2, #3, #4, #5). Approximately eight minutes was required to complete this portion of the questionnaire.

Schaefer, Coyne, and Lazarus (in press) conducted research on 100 adequately functioning 45 to 64 year old men and women utilizing the

Social Support Questionnaire. Their findings demonstrated that when the three components of the Social Support Questionnaire (tangible, informational, and emotional) are each independently correlated with the Social Network Index (Berkman & Syme, 1979) a modest correlation exists between the Social Network Index and the emotional support and informational components of the questionnaire. Schaefer, Coyne, and Lazarus (in press) found emotional support and informational support to be highly correlated with each other, but neither was found to be strongly related to tangible support. Overall, their results argue against accepting the Social Network Index as an alternative measure of perceived support, indicating that social support appears not to be a unitary concept.

In analysis of their measures of social support, Schaefer, Coyne, and Lazarus (in press) found considerable stability with test-retest correlations ranging from 0.56 ($p < 0.001$) for tangible support to 0.68 ($p < 0.001$) for emotional support. They noted that informational and emotional support both demonstrated considerable internal consistency with coefficient alphas of 0.81 for the informational support scale and 0.95 for the emotional support scale. Unfortunately, Schaefer, Coyne, and Lazarus' (in press) findings indicated that the coefficient alphas for the tangible support scale were only 0.31. They pointed out that it is necessary to retain the tangible support score despite its lack of internal consistency. This they believe is indicated since the tangible support portion of the Social Support Questionnaire is stable, theoretically relevant, and allows the items involved to be included in the same score. However, Schaefer, Coyne, and Lazarus (in press) encourage researchers to regard with caution results obtained from the tangible support measure. They point out that future research using the tangible support measure should seek to improve its internal consistency. This objective might be achieved more readily by adding questions about tangible support to the present list.

This investigator selected the Social Support Questionnaire for this study instead of another questionnaire which measures the concept of social support in spite of the low internal consistency of the tangible support portion. The rationale for the selection of this tool was based on the facts that other social support questionnaires: 1) are not time efficient (Henderson, Byrne, Duncan-Jones, Adcock, Scott, & Steele, 1978), 2) do not speak to the same specific clinical discipline (Nuckolls, Cassel, & Kaplan, 1972), and 3) deal only with social network size and do not include a direct measure of perceived support (Berkman & Syme, 1979).

Utilizing Cohen and Lazarus' (1977) Social Support Questionnaire for this study was conceptually sound since: 1) this tool has been tested on a population of men and women within an age range similar to the majority of the subject's within this study, and 2) this tool was conceived out of Lazarus' paradigm of stress and coping, the framework upon which this study has been based. However, as suggested by Schaefer, Coyne, and Lazarus (in press) to strengthen the internal consistency of the tangible support portion of the Social Support Questionnaire, the investigator added two items to the original eight. These items were questions nine and ten in the tangible support portion of Part I of the questionnaire (See Appendix V).

Bradburn Morale Scale. The Bradburn Morale Scale (See Appendix VI) is a widely used index (Campbell, 1976; Wilson, 1967; Schaefer, Coyne, &

Lazarus, in press) designed by Bradburn and Caplovitz (1965) for the purpose of measuring psycholgical well-being. The questionnaire consists of two psychological dimensions: a five-item positive affect scale and a five-item negative affect scale. The ten-item questionnaire deals with how the subject has felt over the past few weeks.

The subject was asked to respond in a yes or no manner to each of the ten questions. The investigator recorded the subject's response to each item on the questionnaire. It took approximately one to two minutes to complete this questionnaire.

A score of one was assigned to each yes response to each item on the positive affect scale and for each item on the negative affect scale. The sum of the scores ranged from zero to five for both scales. Thus each respondent received two scores: one for positive affect and one for negative affect. The two scores then were compared to determine their relative balance. One score ultimately was ascertained.

Bradburn and Caplovitz (1965) noted in their research findings that the two types of feelings, negative and positive, as measured by the Bradburn Morale Scale, were independent of one another. This means that within a given period of time, such as a week or two, an individual may experience both positive and negative feelings. As Bradburn (1969) points out, some people have more pleasant than unpleasant feelings, whereas other individuals are happier than others and are more likely to demonstrate a high score on the positive affect scale and a low score on the negative affect scale. According to Bradburn and Caplovitz (1965), avowed happiness is a function of the relative strength of both positive and negative function of the relative strength of both positive and negative affect. Only by knowing the relative balance that exists between one's positive feelings and one's negative feelings can predictions be made about an individual's happiness within a given period of time.

Reliability estimates for the positive and negative affect items were determined by Bradburn (1969) from a random subsample of 200 respondents of a national area probability sample (N = 2,787). For each feeling state, coefficients of association ("Q's") between responses given by each respondent during two interviews (given three days apart) were computed. The "Q" values for the individual items were reported to be uniformily high with all but one being over 0.90. Bradburn (1969) interpreted these high coefficients to mean that stability of response is sufficient to enable an identification of meaningful change in happiness when it occurs. When test-retest analyses were conducted by Bradburn (1969), a slight tendency in a shift of the scale scores to the more positive direction was noted. However, on the whole, the changes were reported to be small (X^2 for difference = 5.06, $p < 0.05$ for the positive affect items and X^2 for difference = 4.57, $p < 0.05$ for the negative affect items). Bradburn (1969) noted the tendency to shift toward the more positive direction of the scale disappeared when longer periods of time (more than three days) existed between administration of the questionnaire.

Validity of the questionnaire has been demonstrated by Bradburn (1969) through comparison of the respondent's positive and negative affect scores to other questions which tap the same dimensions but enable the respondent to answer in terms other than those related to happiness. Bradburn (1969) noted a high level of association between the affect scores and the respondent's answers to the additional questions (Gamma for both men and women were 0.57 or higher). While these interrelationships do not guarantee that respondents are giving valid answers to the questions about avowed happiness, for the most part Bradburn (1969) believes the respondents are giving fairly consistent responses to inquiries about their feelings toward their current life situations.

The Bradburn Morale Scale was selected for use in this study due to its: 1) reputable reliability and validity, 2) wide use in behavioral research, and 3) ability to assess a sense of psychological well-being in a time efficient manner.

Qualitative Data Questionnaire. (See Appendix VII.) In addition to the aforementioned five formal questionnaires, the investigator chose to close the interview by asking each subject to respond to two open-ended questions. These questions were:

1) How do you go about coping with your rheumatoid arthritis?
2) What does it mean to you to have rheumatoid arthritis?

The subject's responses to each question were recorded by the investigator on the questionnaire. It took approximately ten minutes to complete this questionnaire.

The responses provided by each subject for both open-ended questions were dealt with by way of content analysis. Analyses of both these questions will be presented in Chapter Five, "Findings."

The purpose of posing these questions was to allow the subject an opportunity to verbalize what it is like to live with the stressful aspects of rheumatoid arthritis. Closed-ended questions, such as those in the five formal questionnaires used in this study, sometimes are considered superficial. Thus using the two open-ended questions allowed for a richer, fuller perspective of the topic of coping with rheumatoid arthritis.

Procedure

The same procedure for data gathering was followed at all three health care facilities where each subject was waiting to be seen by her respective physician. The entire procedure took approximately one hour per subject. The data gathering procedure was conducted either in a room adjoining the clinic waiting room or in a part of the clinic waiting room secluded from other individuals. Particular attention was paid not to interfere with the subject's scheduled clinic appointment time and to maintain privacy during the interview session.

The following procedure for the gathering of data was carried out:

1) The potential subject's chart was reviewed to see if she met the investigator's criteria for inclusion. (Permission to review the charts was obtained from each health care facility at the time of negotiated entrée.) Review of the charts was done the day of the potential subject's clinic appointment.
2) The potential subject, meeting the investigator's criteria for inclusion was approached in the clinic waiting room and told the basic nature of the study (Appendix I). The potential subject was reassured that her physician had been informed about her possible inclusion in the study.
3) The potential subject was asked if she would participate in the study. Any questions posed by the potential subject concerning the study were answered. (The only question posed

by the potential subjects dealt with the issue of whether they would be interviewed more than once. These subjects were reassured that their participation in the study involved only one interview session.)

4) The women who consented to be in the study were asked to sign a consent form (See Appendix VIII). The signed consent forms are filed in the Department of Community and Mental Health Nursing, University of California, San Francisco. Women who did not consent to be in the study were thanked for their time. (Only six women refused to be in the study. Five women refused because they did not feel they had time to take part in the study. The other woman gave no rationale for not wanting to participate. The low number of refusals seemed to indicate that rheumatoid arthritic women want to talk about their illness and how they believe they cope with it. The majority of women interviewed stated interest in the study and expressed pleasure about being interviewed.)

5) Once the subject consented to be in the study, her physician was notified via a written message as to the location of the interview. Physicians were aware that they could interrupt the interview to see the patient.

6) Each subject was taken either to a room adjoining the clinic waiting room or to an area of the waiting room secluded from other individuals. (This varied from time to time depending on the availability of a room adjoining the clinic waiting room.)

7) Each subject was interviewed solely by the investigator and asked to verbally respond to the questions on the following questionnaires:

   Demographic/Illness Data Questionnaire
   Coping Questionnaire
   Functional Status Index Questionnaire
   Social Support Questionnaire
   Bradburn Morale Scale
   Qualitative Data Questionnaire

8) Each subject's responses were recorded on the appropriate questionnaire by the investigator. The investigator attempted to complete as much of the interview as possible before the subject was called for her clinic appointment. (This was possible about 70% of the time and was usually accomplished when the physician was running late with his/her appointments.) The items on the questionnaires not completed prior to the subject's appointment were completed after the appointment. No subject failed to stay after her appointment to complete the unanswered portions of the questionnaires.

9) At the close of each interview, the subject was thanked for her cooperation and participation in the study.

10) The subjects who had not seen their physician by the time the interview was completed were escorted back to the main area of the waiting room. The physician was notified via written message that the investigator had completed the interview.

Method of Data Analysis

The approach to the data analysis of this study involved descriptive statistics, inferential statistics, and content analysis. Each technique used in the analysis of this study's data will be presented and discussed below.

The descriptive statistics consisted of frequency distributions, measures of central tendency, and measures of variability. These analyses enabled the investigator to reduce, summarize, and describe the data obtained from the empirical observations and measurements made.

The inferential statistical analysis employed to examine the data of this study was multiple regression/correlation analysis (MRC). This approach allowed for understanding the effects which two or more independent variables (i.e., demographic/illness characteristics, coping focus, functional status, and social support variables) had upon the dependent variable (i.e., psychological well-being). Since multiple regression/correlation analysis is a powerful and flexible data analytic system that has both descriptive and inferential functions, it can yield measures of whole relationships of a research component to the dependent variable, as well as partial or unique relationships (Cohen & Cohen, 1975).

The specific features of this system, as described by Cohen & Cohen (1975), which were of interest to the investigator in analyzing this study's data included the ability of the system to: 1) work with multiple factors at the same time through the use of a multiple factor paradigm; 2) provide for assessment of unique variance as well as measure partial correlation and regression coefficient; 3) utilize data in a variety of forms; 4) measure conditional relationships in any order of complexity.

The step-wise approach was used as a specific strategy within the multiple regression/correlation model. The step-wise approach is a method by which all potential predictors can be considered simultaneously and through which the combination of variables providing the most predictive power can be chosen. The study's variables were entered sequentially into the regression equation in the order in which they produced the greatest amount of variance in the dependent variable. The first step involved selecting the single best predictor of the dependent variable. Therefore, the second variable to enter the regression equation was the one which produced the largest variance in the dependent variable when used simultaneously with the variable selected in the first step. The third variable to enter the regression equation was the one which produced the largest variance in the dependent variable when used simultaneously with the variables selected during steps one and two. The step-wise procedure continued in the same manner until all of the independent variables had been entered into the regression equation.

Multiple regression/correlation analysis was the overall analytic strategy for determining the relationship among demographic/illness characteristics, functional status, coping focus, and social support in regard to psychological well-being. Multiple correlation (R) was used to measure the association between the dependent variable (psychological well-being) and an optimal linear combination of two or more of the independent variables. The R^2 was used to determine the proportion of variance accounted for in psychological well-being by the combination of independent variables. The semi-partial correlation coefficient (Sr^2) indicated the amount of unique variance in psychological well-being accounted for by one specific variable. The F test was used to determine the significance of the individual semi-partial correlation coefficient.

In this study there were a total of 17 variables, 16 independent and one dependent. These variables were:

1) The demographic/illness characteristics which included age, marital status, occupation, income level,educational level, racial/ethnic background, length of illness, and existence or lack of multiple arthritic conditions.
2) Coping focus which included emotion-focused coping and problem-focused coping.
3) Functional status which included dependence upon others, pain, and difficulty in performing tasks.
4) Social support which included tangible support, informational support, and emotional support.
5) Psychological well-being which was represented by the ten-item Bradburn Morale Scale.

Each of these variables was reduced in order to obtain quantifiable scores. The demographic/illness characteristics of age, occupation, income, level, educational level, and length of illness were kept as continuous data while marital status, and racial/ethnic background were each collapsed into two respective categories of married and not married and Caucasian and non-Caucasian. The presence of multiple arthritic conditions was divided into six categories consisting of osteoarthritis and no osteoarthritis, Sjogren's Syndrome and no Sjogren's Syndrome, and degenerative joint disease and no degenerative joint disease. Each of the components of functional status (dependence, pain, and difficulty), coping focus (emotion-focused and problem-focused), and social support (tangible, informational, and emotional) were treated as continuous data. Psychological well-being scores were obtained by summing the positive affect scores and the negative affect scores, comparing their relative balance, and reducing them to one score. These numerical representations of the variables were used for computation in both the descriptive and inferential statistics.

Content analysis was the third type of analysis carried out on the data of this study. This form of analysis was conducted on the data obtained from the two open-ended questions posed to the subjects at the end of the interview session. Content analysis is a method for the objective, systematic, and quantitative description of the manifest content of communication (Berelson, 1954).

The unit of content analysis selected for this study was the theme. The theme is a phrase, sentence, or paragraph embodying or making assertions about a specific topic. It is one of the most useful units for content analysis for communication dealing with opinions and attitudes such as those obtained by the two open-ended quesions posed in this study.

Following the identification of the theme, the next step employed was the development of the category system for classifying the theme. This category system was developed around the context of "what the subject matter said" in each category. This is perhaps the most general category context used in content analysis and it answers the most basic question, "What is the communication about?" (Berelson, 1954; Holsti, 1969; Kerlinger, 1973).

The third step carried out in the content analysis involved the time-consuming operation of counting the occurrences of the categories and of minimizing the investigator's subjectivity during the analysis process. After the categories were counted, the data was given to an independent coder who applied the same set of categories to the content. The results between the investigator's analyses were compared with the independent coder's analyses. The investigator and the independent coder agreed 97% of the time.

The fourth step involved interpretation of the content analyzed. This was done by using the direct method of inference (Berelson, 1954; Holsti, 1969; Kerlinger, 1973).

The results of the content analyses, the multiple/regression correlation analysis, and the descriptive analyses served as the basis for describing this study's data. These results are presented and discussed in the following chapter.

CHAPTER V

FINDINGS

This chapter contains a profile of the subjects, an overview of the instrument scores, a report on instrument reliability, a presentation of the findings for each research question, and a presentation of the results of the content analysis conducted on the two open-ended questions posed at the end of each interview. Results of the data presented in this chapter provide background for the discussion presented in the following chapter.

Subject Profile

Although this study dealt exclusively with women afflicted with rheumatoid arthritis, the subjects were diverse in several respects. These diverse characteristics are presented and discussed below.

The population of this study consisted of 21 to 80 year old women (with an average age of 55) who were Caucasian (67%) or non-Caucasian (33%), and married (73%) or not married (27%). Thus the subjects were from a middle age group and were somewhat skewed in their representation of women who were not married and non-Caucasian. However, since the majority of women in the United States afflicted with rheumatoid arthritis tend to be in the middle and older age categories and tend to be Caucasian (Arthritis Foundation, 1980), this sample was not biased for the specific population being studied.

The socioeconomic status of the respondents was fairly diverse. Their educational level ranged from 0 to 18 years of formal schooling, with an average of twelve years completed. Household income of the respondents ranged from less than $5,000 up to $60,000, with an average yearly household income of $18,000. The majority of the women (89%) were not employed, with only 11% holding jobs outside the home. A wide range of educational level and income categories were demonstrated; however, occupation tended to be skewed toward not employed. It is possible that since the average yearly household income of these women was $3,000 above the national annual average (Lane, 1981), this increase in income could have influenced the psychological well-being of these women. However, due to a lack of significant findings in relationship to income and psychological well-being, the investigator doubts that this was the case in this study. In addition, it was not surprising that so few respondents were employed outside the home since rheumatoid arthritis can have a deleterious effect upon one's physical mobility and, subsequently, upon one's ability to possibly carry out job-related tasks.

Length of illness affliction for the subjects in this study ranged from 1 to 69 years, with an average affliction of 15 years. Multiple arthritic afflictions existed in very few of the women in this study, with only 13% having some arthritic condition other than rheumatoid arthritis. Thus the respondents demonstrated a wide range for length of illness affliction, but their numbers were skewed in regard to the presence of multiple arthritic conditions.

It was unusual that so few women reported arthritic conditions other than rheumatoid arthritis. The presence of multiple arthritic conditions due to the aging process was expected since the study sample tended to represent a middle and older population. However, since this study was directed toward ascertaining what factors influence psychological well-being of rheumatoid arthritic women exclusively, it was advantageous to have a group as homogeneous as possible in regard to rheumatoid arthritis. Therefore, having so few women afflicted with multiple arthritic conditions aided in providing this homogeneity.

In summary, this study sample represented a group of rheumatoid arthritic women with fairly diverse demographic/illness characteristics. None of the demographic/illness characteristics appeared to be significantly related to any of the independent variables or to the dependent variable.

Overview of the Study's Instrument Scores

The instruments utilized in this study included the Coping Questionnaire, the Functional Status Index Questionnaire, the Social Support Questionnaire, and the Bradburn Morale Scale. The range, mean, and standard deviation of scores for each measure will be presented in order to facilitate interpretation of the study's findings. Where possible, these results will be compared to reported results from comparable studies.

The respondents' Coping Questionnaire scores (See Table 5) on the 40-item emotion-focused coping scale, ranged from 12 to 34, with a mean of 25 and a standard deviation of 5. By comparison, Folkman and Lazarus' (1980) respondents' scores on the 40-item emotion-focused coping scale ranged from 0 to 37, with a mean of 13 and a standard deviation of 6. The scores obtained by this study's respondents were slightly narrower in range, with a larger mean and a slightly smaller standard devaition in comparison to the scores obtained by Folkman and

Lazarus' (1980) respondents. Thus the respondents of this sample did not vary as much in their use of emotion-focused coping as the respondents in Folkman and Lazarus' (1980) study. However, the respondents in this study used more emotion-focused coping than Folkman and Lazarus' (1980) respondents.

Table 5

Comparison of the Study Subjects' Coping Questionnaire Score Ranges, Means, and Standard Deviations with Score Ranges, Means, and Standard Deviations from Folkman and Lazarus' (1980) Study

Coping Focus	Ranges	Means	Standard Deviation
Emotion-focused			
This Study[a]	12-34	25	5
Comparison Study[b]	0-37	13	6
Problem-focused			
This Study	6-21	14	3
Comparison Study	0-23	9	4

[a] N = 92 (All females, age range from 21 - 80 years)

[b] N = 100 (Males and females, age range from 45 - 64 years)

On the 24-item problem-focused coping scale, scores in this study ranged from 6 to 21, with a mean of 14 and a standard deviation of 3. Folkman and Lazarus' (1980) respondents' scores, on the 24-item problem-focused coping scale, ranged from 0 to 23, with a mean of 9 and a standard deviation of 4. Thus this sample's score range and standard deviation were fairly comparable to the score range and standard deviation found by Folkman and Lazarus (1980) in their study, indicating similar variability in the usage of problem-focused coping. The mean of this study, however, was considerably larger than the mean demonstrated in Folkman and Lazarus' (1980) study. This study's larger problem-focused mean indicated the respondents of this study used more problem-focused coping than the respondents in Folkman and Lazarus' (1980) study.

When comparing the findings of this study on the Coping Questionnaire to the findings of Folkman and Lazarus (1980), it must be kept in mind that the subjects included in this study were limited to women with rheumatoid arthritis who were 21 to 80 years of age. Folkman and Lazarus' (1980) sample consisted of men and women aged 45 to 64 years, few of whom were afflicted with rheumatoid arthritis. These demographic differences, no doubt, had an influence upon the score results. However, the range of scores demonstrated by this study sample indicated a variation in the types of coping focuses used by the subjects.

The respondents' scores on the dependence portion of the Functional Status Index Questionnaire (See Table 6) ranged from 18 to 60, with a mean of 31 and a standard deviation of 10. The scores on the pain portion of this questionnaire ranged from 18 to 193, with a mean of 71 and a standard deviation of 40. Difficulty, the third portion of the Functional Status Index Questionnaire, had scores which ranged from 18 to 204, with a mean of 76 and a standard deviation of 44. It would have been desirable to compare the scores demonstrated on the Functional Status Index Questionnaire by the subjects in this study to the scores demonstrated by subjects in other studies. Unfortunately, due to lack of available data, this was not possible.

The wide range of scores demonstrated on all portions of the Functional Status Index Questionnaire indicated that the subjects interviewed manifested a variety of physical incapacitations related to rheumatoid arthritis.

Table 6
Functional Status Index Score
Ranges, Means, and Standard Deviations
(N = 92)

Functional Status	Ranges	Means	Standard Deviations
Dependence	18-60	31	10
Pain	18-193	71	40
Difficulty	18-204	76	44

The Social Support Questionnaire (See Table 7) demonstrated, on the tangible support portion, had scores which ranged from 0 to 10, with a mean of 6 and a standard deviation of 2. The scores on the informational support portion of the questionnaire ranged from 15 to 75, with a mean of 48 and a standard deviation of 16. The emotional support portion of the questionnaire had a score range of 97 to 300, with a mean of 254 and a standard deviation of 40. Comparing the scores demonstrated by the subjects in this study with scores demonstrated by subjects on the Social Support Questionnaire in similar studies would have been desirable. However, due to a lack of published data, a comparison was not possible. The range of scores demonstrated on all portions of the Social Support Questionnaire indicated that the subjects varied considerably in how they perceived themselves to utilize social supports.

Table 7

Social Support Questionnaire and Bradburn Morale Scale Score Ranges, Means, and Standard Deviations

(N = 92)

Variable	Ranges	Means	Standard Deviations
Social Support			
Tangible	0-10	6	2
Informational	15-75	48	16
Emotional	97-300	254	40
Bradburn Morale Scale	-5 to +5	2	1

The respondents' Bradburn Morale Scale scores ranged from -5 to +5 (See Table 7). The mean was 2 and the standard deviation was 1. Although many studies (Campbell, 1976; Wilson, 1967; Schaefer, Coyne, & Lazarus, in press) on coping used the Bradburn Morale Scale as a measurement instrument, the investigator was not able to obtain score ranges, means, and standard deviations for comparison. The wide range of scores demonstrated by the subjects in the present study indicated these women experienced considerable variation in feelings of psychological well-being.

In summary, the range of scores evident on all of the instruments utilized in this study indicated the presence of various levels of function. The respondents, that is, demonstrated sufficient variability on criterion indices for statistical analyses to be performed.

Internal Reliability of Instruments

It was necessary to compute reliability coefficients on the instruments utilized in this study since reliability is not the property of the instrument alone, but rather of the instrument when administered to a specific sample under specific conditions (Polit & Hungler, 1978). The investigator was particularly interested in the reliability of the Coping Questionnaire, the Social Support Questionnaire, and the Bradburn Morale Scale since the use of these instruments with an exclusively rheumatoid arthritic population has not as yet been reported. The Functional Status Index Questionnaire had been applied previously to an all-rheumatoid arthritic population.

Cronbach's (Polit & Hungler, 1978) alpha was computed for each portion of the Coping Questionnaire, the Functional Status Index Questionnaire, the Social Support Questionnaire, and the Bradburn Morale Scale (See Table 8). The reliability coefficients demonstrated for each of these instruments are presented in Table 8 along with the reliability coefficients demonstrated on each instrument in prior studies.

The Coping Questionnaire scores in this study demonstrated a slightly lower reliability coefficient on both the emotion-focused coping scale and the problem-focused coping scale than the reliability coefficients produced by the scores from Folkman and Lazarus' (1980) work. It must be remembered that, in some contrast to the present investigation, Folkman and Lazarus (1980) studied an adequately functioning middle-aged population (45-64 years) of men and women who were not necessarily afflicted with rheumatoid arthritis. These sample differences could have influenced the reliability coefficient differences produced on the Coping Questionnaire between this study's scores and the scores obtained by Folkman and Lazarus (1980).

The Functional Status Index Questionnaire scores produced in this study comparable reliability coefficients to those reported by Jette

Table 8

Comparison of Instrument Reliability Coefficients Between this Study's Sample and Other Study Samples

(N = 92)

Tool	Reliability Coefficients	
	This Study	Comparison Studies[a]
Coping Questionnaire		
Emotion-focused Coping	.72	.81
Problem-focused Coping	.61	.80
Functional Status Index		
Dependence	.82	.66
Pain	.85	to
Difficulty	.86	.91
Social Support Questionnaire		
Tangible Support	.27[b](.22)[c]	.31
Informational Support	.62	.81
Emotional Support	.91	.95
Bradburn Morale Scale	.72	.90

[a] Coping Questionnaire (Folkman & Lazarus, 1980)
Functional Status Index (Jette, 1980b)
Social Support Questionnaire (Schaefer, Coyne, & Lazarus, in press)
Bradburn Morale Scale (Bradburn & Caplovitz, 1969)

[b] With original eight items

[c] With original eight items plus two new items

(1980b) in his work with male and female rheumatoid arthritics. Comparable reliability coefficients on the Functional Status Index Questionnaire would be expected since Jette's (1980b) population and the population of this study were clinically similar.

The Social Support Questionnaire scores produced in this study a lower reliability coefficient on the tangible support and information support portions of the questionnaire than the reliability coefficients reported by Schaefer, Coyne, and Lazarus (in press). However, the emotional support portion of the questionnaire produced a reliability coefficient roughly comparable to that found by Schaefer, Coyne, and Lazarus (in press).

It should be pointed out that the reliability coefficients were computed on the tangible support portion of the Social Support Questionnaire using both the instruments original eight items and using the original eight items plus two new items added by the investigator. As shown in Table 8, adding the two new items to the original eight items did not result in producing a significant increase in the reliability coefficient of the tangible support portion of the questionnaire.

During the interview sessions, the investigator noted many of the items in the tangible support portion of the Social Support Questionnaire did not appear relevant to the subjects being interviewed. This lack of relevance could have contributed significantly to the low reliability coefficient on the tangible support portion. As previously pointed out, however, the difference in population between this study and the study reported by Schaefer, Coyne, and Lazarus (in press) may also have contributed to the differences demonstrated among the reliability coefficients on the tangible and informational support portions of the Social Support Questionnaire.

The Bradburn Morale Scale scores produced in this study a lower reliability coefficient than that reported by Bradburn and Caplovitz (1969). Again, specificity of this clinical population may have been the factor contributing to this difference.

In overview, all the instruments used in this study, with the exception of the tangible support portion of the Social Support Questionnaire, produced acceptable reliability coefficients. The scores for each instrument demonstrated a wide range which indicated the presence of variation among the subjects. With these facts in mind, each research question, hypothesis, and corresponding finding will be presented below. The order in which each question and corresponding finding is presented will follow the sequence of the data analysis: the simple relationships are presented first, followed by the more complex relationships.

Data Analysis

Research questions numbers 1 through 11 were addressed by conducting a Pearson's correlation coefficient to determine the direction and strength of the relationship between the variables. T-tests were carried out on questions 2, 8, and 10 to determine whether the means for each set of variables were significant. Research question number 12 was addressed by conducting multiple regression/correlation analysis to determine the effect which two or more variables have upon psychological well-being. The following variables were included as variables to enter into the step-wise multiple regression equation: pain, emotion-focused coping, informational support, education level, age, problem-focused coping, presence of degenerative joint disease, difficulty in performing tasks, presence of Sjogren's syndrome, presence of osteoarthritis, dependency upon others, tangible support, racial/ ethnic background, marital status, income level, and length of illness.

Research Questions, Hypotheses, and Corresponding Findings

Question #1. Research question number 1 asked, "What is the nature of the relationships between each component of emotion-focused coping and each component of functional status (dependence, pain, and difficulty) in the rheumatoid arthritic woman?" The hypotheses posed for this question were: 1) "As dependence upon others increases in the rheumatoid arthritic woman, so does emotion-focused coping," 2) "As pain increases in the rheumatoid arthritic woman, so does emotion-focused coping," and, 3) "As difficulty in performing tasks increases in the rheumatoid arthritic woman, so does emotion-focused coping."

The findings (See Table 9) demonstrated no significant relationships (Pearson's correlation coefficient) between either dependency upon others, pain, or difficulty in performing tasks and emotion-focused coping. Thus the three hypotheses posed were not supported.

Table 9

Pearson's Correlations Between Emotion-focused Coping and Functional Status

	Functional Status		
	Dependence	Pain	Difficulty
Emotion-focused Coping	.145	.127	.050

Question #2. Research question number two asked, "What is the nature of the relationship between each demographic/illness characteristic (age, occupation, income, educational level, length of illness, marital status, racial/ethnic background, and presence of multiple arthritic conditions) and each component of coping focus (emotion-focused and problem-focused) in the rheumatoid arthritic woman?" No hypotheses were posed for this question.

Table 10

Pearson's Correlations Between Ordinal Demographic/Illness Characteristics and Coping Focus

Coping Focus	Demographic/Illness Characteristics				
	Age	Occupation	Income	Education	Length of Illness
Emotion-focused	-.064	.176	.028	-.237*	.057
Problem-focused	-.105	.160	.018	-.114	.159

*p <.01

Table 11

The Relationships Between Nominal Demographic/Illness Characteristics and Emotion-focused Coping

Sample Characteristics	Emotion-focused Coping					
	Number of Cases	Mean	Standard Deviation	d.f.	T-value	2-tailed Probability
Demographic Characteristics						
Married	67	25.10	5.09	90	.61	.543
Not Married	25	24.36	5.48			
Caucasian	62	24.53	5.22	90	-.98	.328
Non-Caucasian	30	25.66	5.08			
Illness Characteristics						
Osteoarthritis	4	19.50	9.00	3.08	1.25	.301
No Osteoarthritis	88	25.14	4.88			
Degenerative Joint Disease	4	22.75	5.85	90	.85	.399
No Degenerative Joint Disease	88	25.00	5.16			
Sjogren's Syndrome	4	25.75	4.11	90	-.33	.740
No Sjogren's Syndrome	88	24.86	5.24			

Table 12

The Relationships Between Nominal Demographic/Illness Characteristics and Problem-focused Coping

Sample Characteristics	Problem-focused Coping					
	Number of Cases	Mean	Standard Deviation	d.f.	T-value	2-tailed Probability
Demographic Characteristics						
Married	67	14.52	3.40	90	.37	.712
Not Married	25	14.24	2.75			
Caucasian	62	14.24	3.23	90	-.87	.388
Non-Caucasian	30	14.86	3.23			
Illness Characteristics						
Osteoarthritis	4	12.75	3.59	90	1.07	.286
No Osteoarthritis	88	14.52	3.21			
Degenerative Joint Disease	4	13.50	5.50	90	.60	.553
No Degenerative Joint Disease	88	14.48	3.13			
Sjogren's Syndrome	4	15.75	1.25	90	-.82	.412
No Sjogren's Syndrome	88	14.38	3.28			

The findings of the Pearson's correlation coefficient (See Table 10) demonstrated a significant negative relationship of moderate strength between education and emotion-focused coping. This relationship suggests as the rheumatoid arthritic woman's educational level decreases, her use of emotion-focused coping increases. No other significant relationships were demonstrated between the remaining demographic/illness characteristics and either emotion-focused coping or problem-focused coping.

The results of the t-tests (See Tables 11 & 12) demonstrated no significant difference between the means of each set of demographic/ illness characteristics in regard to both emotion-focused coping and problem-focused coping.

Question #3. Question number three asked, "What is the nature of the relationships between each component of coping focus (emotion-focused and problem-focused) and psychological well-being in the rheumatoid arthritic woman?" No hypotheses were posed for this question.

The findings (See Table 13) demonstrated a significant negative relationship (Pearson's correlation coefficient) of moderate strength between emotion-focused coping and psychological well-being. This relationship suggests: 1) as a rheumatoid arthritic woman increases her use of emotion-focused coping, her psychological well-being decreases, or, 2) as the rheumatoid arthritic woman's psychological well-being decreases, she resorts more and more to the use of emotion-focused coping. No significant relationship was demonstrated between problem-focused coping and psychological well-being.

Table 13

Pearson's Correlations Between Coping Focus and Psychological Well-being

(N = 92)

	Coping Focus	
	Emotion-focused	Problem-focused
Psychological Well-being	-.251*	-.117

*$p < .01$

Question #4. Question number four asked, "What is the nature of the relationships between each component of functional status (dependence, pain, and difficulty) and psychological well-being in the rheumatoid arthritic woman?" The hypotheses posed for this question were: 1) "As dependence upon others increases in the rheumatoid arthritic woman, psychological well-being decreases," 2) "As pain increases in the rheumatoid arthritic woman, psychological well-being decreases," and, 3) "As difficulty in performing tasks increases in the rheumatoid arthritic woman, psychological well-being decreases."

The findings (See Table 14) demonstrated a significant negative relationship (Pearson's correlation coefficient) of moderate strength between: 1) pain and psychological well-being and 2) difficulty in performing tasks and psychological well-being. No significant relationship was demonstrated between dependence upon others and psychological well-being. These relationships suggest that as a rheumatoid arthritic woman's pain and difficulty in performing tasks increase, her psychological well-being decreases. Thus, the hypothesis dealing with the relationship between pain and psychological well-being and the hypothesis dealing with the relationship between difficulty in performing tasks and psychological well-being were supported. The hypothesis dealing with dependence upon others and psychological well-being was not supported.

Question #5. Question number five asked, "What is the nature of the relationships between each component of coping focus (emotion-focused and problem-focused) and each type of social support (tangible, informational, and emotional) in the rheumatoid arthritic woman?" No hypotheses were posed for this question.

Table 14

Pearson's Correlations Between Functional Status and Psychological Well-being

(N = 92)

	Functional Status		
	Dependence	Pain	Difficulty
Psychological Well-being	-.145	-.287*	-.265*

*p < .01

The findings (See Table 15) demonstrated no significant relationship (Pearson correlation coefficient) between any of the three types of social support (tangible, informational, and emotional) and either emotion-focused coping or problem-focused coping.

Table 15

Pearson's Correlations Between Coping Focus and Social Support

(N = 92)

Coping Focus	Social Support		
	Tangible	Informational	Emotional
Emotion-focused	-.014	.011	.024
Problem-focused	.036	.035	.081

Question #6. Question number six asked, "What is the nature of the relationships between each type of social support (tangible, informational, and emotional) and psychological well-being in the rheumatoid arthritic woman?" The hypotheses posed for this question were: 1) "As tangible support increases in the rheumatoid arthritic woman, so does psychological well-being," 2) "As informational support increases in the rheumatoid arthritic woman, so does psychological well-being," and, 3) "As emotional support increases in the rheumatoid arthritic woman, so does psychological well-being."

The findings (See Table 16) demonstrated no significant relationship between psychological well-being and either tangible support, informational support, or emotional support. Therefore, none of the hypotheses were supported.

Table 16

Pearson's Correlations Between Psychological Well-being and Social Support

(N = 92)

	Social Support		
	Tangible	Informational	Emotional
Psychological Well-being	.066	.141	.123

Question #7. Question number seven asked, "Which is more highly correlated, social support (tangible, informational, and emotional) or coping focus (emotion-focused and problem-focused) in relationship to psychological well-being in the rheumatoid arthritic woman?" No hypotheses were posed for this question.

The findings (See Table 17) demonstrated a significant negative relationship (Pearson's correlation coefficient) of moderate strength between emotion-focused coping and psychological well-being. No significant relationships were demonstrated between psychological well-being and problem-focused coping or between psychological well-being and any of the three types of social support. These relationships suggest emotion-focused coping demonstrates higher correlation in relationship to psychological well-being than does problem-focused coping, tangible support, informational support, or emotional support in the rheumatoid arthritic woman.

Table 17

Pearson's Correlations Between Coping Focus, Social Support, and Psychological Well-being

(N = 92)

	Social Support			Coping Focus	
	Tangible	Informational	Emotional	Emotion-focused	Problem-focused
Psychological Well-being	.066	.141	.123	-.251*	-.177

*$p < .01$

Question #8. Question number eight asked, "What is the nature of the relationships between each component of functional status (dependence, pain, and difficulty) and each demographic/illness characteristic (age, occupation, income, educational level, length of illness, marital status, racial/ethnic background, and presence of multiple arthritic conditions) in the rheumatoid arthritic woman?" No hypotheses were posed for this question.

The findings on the Pearson's correlation coefficient (See Table 18) indicate a significant positive relationship of moderate strength between: 1) dependence and age, 2) dependence and length of illness, 3) pain and age, 4) pain and length of illness, 5) difficulty and age, and 6) difficulty and length of illness. No significant relationships were demonstrated between any of the other demographic/illness characteristics and the components of functional status. These relationships suggest that as the rheumatoid arthritic woman's age and length of illness increase, so does her dependency upon others, her pain, and her difficulty in performing tasks. Such findings suggest that if the rheumatoid arthritic woman is both older and has experienced long duration of illness, there tends to be a compounding of functional problems.

Table 18

Pearson's Correlations Between Functional Status and Ordinal Demographic/Illness Characteristics

(N = 92)

Functional Status	Demographic/Illness Characteristics				
	Age	Occupation	Income	Education	Length of Illness
Dependence	.371***	.219	-.132	-.007	.343***
Pain	.244**	.133	-.174	.005	.217*
Difficulty	.211*	.173	-.190	.050	.315***

$^{*}p < .025$
$^{**}p < .01$
$^{***}p < .001$

The results of the t-tests (See Tables 19, 20, & 21) demonstrated no significant difference between the means of individual sets of demographic/illness characteristics in regard to either dependence, pain, or difficulty .

Question #9. Question number nine asked, "What is the nature of the relationships between each component of functional status (dependence, pain, and difficulty) and each type of social support (tangible, informational, and emotional) in the rheumatoid arthritic woman?" No hypotheses were posed for this question.

The findings (See Table 22) demonstrated no significant relationship (Pearson's correlation coefficient) between any of the components of functional status and any of the three types of social support.

Table 19

The Relationships Between Nominal Demographic/Illness Characteristics and Dependence

Sample Characteristics	Dependence					
	Number of Cases	Mean	Standard Deviation	d.f.	T-value	2-tailed Probability
Demographic Characteristics						
Married	67	30.44	10.70	90	-.45	.654
Not Married	25	31.55	9.79			
Caucasian	62	31.11	10.67	90	.48	.635
Non-Caucasian	30	30.00	10.01			
Illness Characteristics						
Osteoarthritis	4	27.20	9.72	90	.69	.490
No Osteoarthritis	88	30.91	10.47			
Degenerative Joint Disease	4	44.13	9.85	90	-2.72	.008
No Degenerative Joint Disease	88	30.14	10.08			
Sjogren's Syndrome	4	28.58	6.05	90	.42	.674
No Sjogren's Syndrome	88	30.84	10.58			

Table 20

The Relationships Between Nominal Demographic/Illness Characteristics and Pain

Sample Characteristics	Pain					
	Number of Cases	Mean	Standard Deviation	d.f.	T-value	2-tailed Probability
Demographic Characteristics						
Married	67	66.88	33.75	31.86	-1.26	.218
Not Married	25	80.92	51.98			
Caucasian	62	72.31	40.08	90	.56	.577
Non-Caucasian	30	67.35	39.44			
Illness Characteristics						
Osteoarthritis	4	82.00	44.29	90	-.58	.563
No Osteoarthritis	88	70.18	39.71			
Degenerative Joint Disease	4	85.76	27.52	90	-.77	.441
No Degenerative Joint Disease	88	70.01	40.17			
Sjogren's Syndrome	4	74.17	33.91	90	-.18	.859
No Sjogren's Syndrome	88	70.54	40.13			

Table 21

The Relationships Between Nominal Demographic/Illness Characteristics and Difficulty

Sample Characteristics	Difficulty					
	Number of Cases	Mean	Standard Deviation	d.f.	T-value	2-tailed Probability
Demographic Characteristics						
Married	67	70.83	38.97	33.25	-1.50	.142
Not Married	25	88.98	55.46			
Caucasian	62	75.33	45.13	90	-.13	.894
Non-Caucasian	30	76.66	43.85			
Illness Characteristics						
Osteoarthritis	4	68.33	65.71	90	.34	.735
No Osteoarthritis	88	76.01	43.79			
Degenerative Joint Disease	4	107.97	32.16	90	-1.49	.140
No Degenerative Joint Disease	88	74.30	44.54			
Sjogren's Syndrome	4	74.28	35.84	90	.07	.946
No Sjogren's Syndrome	88	75.83	45.00			

Table 22

Pearson's Correlations Between Functional Status and Social Support

(N = 92)

Functional Status	Social Support		
	Tangible	Informational	Emotional
Dependence	-.100	.079	-.013
Pain	-.169	-.051	-.050
Difficulty	-.066	-.064	-.052

Question #10. Question number ten asked, "What is the nature of the relationships between each demographic/illness characteristic (age, occupation, income, educational level, length of illness, marital status, racial/ethnic background, and presence of multiple arthritic conditions) and each type of social support (tangible, informational, and emotional) in the rheumatoid arthritic woman?" No hypotheses were posed for this question.

The findings on the Pearson's correlation coefficient (See Table 23) demonstrated a significant negative relationship of moderate strength between age and tangible support. This relationship suggests as the rheumatoid arthritic woman's age increases, her percieved tangible support decreases. However, in view of the fact that the reliability coefficient demonstrated in this study on the tangible support portion of the Social Support Questionnaire was extremely low, this finding should be interpreted with caution. No other significant relationships were demonstrated between any of the other ordinal demographic/illness characteristics and any of the three types of social support.

Table 23

Pearson's Correlations Between Ordinal Demographic/Illness Characteristics and Social Support

(N = 92)

Social Support	Demographic/Illness Characteristics				
	Age	Occupation	Income	Education	Length of Illness
Tangible	-.273*	-.052	-.009	-.095	.060
Informational	-.083	.040	.198	.025	.129
Emotional	-.131	.085	.097	-.001	.131

*$p < .01$

The results of the t-tests (See Tables 24, 25, & 26) demonstrated a significant difference between the means of: 1) Caucasian and non-Caucasian women in regard to informational support, and 2) Caucasian and non-Caucasian women in regard to emotional support. The significant difference demonstrated between the means of informational support suggests non-Caucasian women perceived more informational support than Caucasian women. On the other hand, Caucasian women perceived more emotional support than non-Caucasian women. The remainder of the results of the t-tests demonstrated no significant difference between the means of each set of demographic/illness characteristics in regard to the three types of social support.

Question #11. Question number eleven asked, "What is the nature of the relationships between each demographic/illness characteristic (age, occupation, income, educational level, length of illness, marital status, racial/ethnic background, and presence of multiple arthritic conditions) and psychological well-being in the rheumatoid arthritic woman?" The hypotheses posed for this question were: 1) "As educational level increases in the rheumatoid arthritic woman, so does psychological well-being," and 2) "As income level increases in the rheumatoid arthritic woman, so does psychological well-being.

The findings on the Pearson's correlation coefficient (See Table 27) demonstrated no significant relationships between psychological well-being and each of the ordinal demographic/illness characteristics. Thus the hypotheses posed were not supported.

Table 24

The Relationships Between Nominal Demographic/Illness Characteristics and Tangible Support

Sample Characteristics	Tangible Support					
	Number of Cases	Mean	Standard Deviation	d.f.	T-value	2-tailed Probability
Demographic Characteristics						
Married	67	6.42	2.07	90	-.38	.701
Not Married	25	6.60	1.47			
Caucasian	62	6.38	1.89	90	-.68	.500
Non-Caucasian	30	6.67	1.98			
Illness Characteristics						
Osteoarthritis	4	5.60	3.74	3.07	.48	.661
No Osteoarthritis	88	6.51	1.82			
Degenerative Joint Disease	4	6.17	1.85	90	.32	.746
No Degenerative Joint Disease	88	6.49	1.93			
Sjogren's Syndrome	4	6.66	2.56	90	-.20	.841
No Sjogren's Syndrome	88	6.46	1.90			

Table 25

The Relationships Between Nominal Demographic/Illness Characteristics and Informational Support

Sample Characteristics	Informational Support					
	Number of Cases	Mean	Standard Deviation	d.f.	T-value	2-tailed Probability
Demographic Characteristics						
Married	67	13.98	9.01	90	-.17	.866
Not Married	25	14.32	6.53			
Caucasian	62	11.60	6.70	90	2.00	.048*
Non-Caucasian	30	15.27	8.88			
Illness Characteristics						
Osteoarthritis	4	12.00	7.39	90	.50	.615
No Osteoarthritis	88	14.17	8.44			
Degenerative Joint Disease	4	17.00	6.05	90	-.71	.478
No Degenerative Joint Disease	88	13.94	8.47			
Sjogren's Syndrome	4	18.50	15.88	3.07	-.58	.603
No Sjogren's Syndrome	88	13.87	7.98			

*$p < .05$

Table 26

The Relationships Between Nominal Demographic/Illness Characteristics and Emotional Support

Sample Characteristics	Emotional Support					
	Number of Cases	Mean	Standard Deviation	d.f.	T-value	2-tailed Probability
Demographic Characteristics						
Married	67	71.59	41.72	90	-1.27	.206
Not Married	25	83.68	36.67			
Caucasian	62	81.00	41.35	90	2.12	.037*
Non-Caucasian	30	62.23	36.37			
Illness Characteristics						
Osteoarthritis	4	69.75	39.23	90	.26	.798
No Osteoarthritis	88	75.11	40.84			
Degenerative Joint Disease	4	81.25	34.46	90	-.32	.750
No Degenerative Joint Disease	88	74.59	40.98			
Sjogren's Syndrome	4	99.50	65.80	90	-1.24	.217
No Sjogren's Syndrome	88	73.76	39.29			

*p < .05

Table 27

Pearson's Correlations Between Psychological Well-being and Ordinal Demographic/Illness Characteristics

(N = 92)

	Demographic/Illness Characteristics				
	Age	Occupation	Income	Education	Length of Illness
Psychological Well-being	.020	-.059	.119	.161	-.029

The results of the t-tests (See Table 28) demonstrated no significant differences between the means of individual sets of nominal demographic/illness characteristics in regard to psychological well-being.

Question #12. Question number twelve asked, "Which combination of variables (age, occupation, income, educational level, length of illness, marital status, racial/ethnic background, presence of multiple arthritic conditions, emotion-focused coping, problem-focused coping, dependence upon others, pain, difficulty in carrying out tasks, tangible support, imformational support, or emotional support) tend to lead to psychological well-being in the rheumatoid arthritic woman?" No hypotheses were posed for this question.

The results (See Table 29) of a multiple regression analysis indicated that only two of the independent variables (pain and emotion-focused coping) explained a significant portion of the variability in psychological well-being. As noted in Table 29, both pain and emotion-focused coping carry a negative sign, indicating that as pain and emotion-focused coping increases, psychological well-being decreases.

Content Analysis

The basic theme of the two open-ended questions posed at the end of the interview session involved the issue of "What is it like to live with the stressful ramifications of rheumatoid arthritis?"

Two basic categories were identified from the interview responses; they consisted of: 1) maintaining strong internal control and 2) cutting back on physical activities. Each of these categories are presented and discussed below.

Table 28

The Relationships Between Nominal Demographic/Illness Characteristics and Psychological Well-being

Sample Characteristics	Psychological Well-being					
	Number of Cases	Mean	Standard Deviation	d.f.	T-value	2-tailed Probability
Demographic Characteristics						
Married	67	.95	2.47	90	.20	.843
Not Married	25	.84	2.47			
Caucasian	62	1.03	2.50	90	.60	.547
Non-Caucasian	30	.70	2.40			
Illness Characteristics						
Osteoarthritis	4	1.00	4.08	90	-.06	.950
No Osteoarthritis	88	.92	2.40			
Degenerative Joint Disease	4	1.75	2.63	90	-.68	.496
No Degenerative Joint Disease	88	.88	2.46			
Sjogren's Syndrome	4	1.75	4.03	90	-.68	.496
No Sjogren's Syndrome	88	.88	2.39			

Table 29

Independent Variables and Psychological Well-being:

Multiple Regression/Correlation Analysis

(N = 92)

Step	Variable Entered	Multiple R	Percent of Variance Explained	Simple R	F to Enter
1	Pain	.29	8.25	-.29	8.10*
2	Emotion-focused Coping	.36	4.67	-.25	4.78**
3	Informational Support	.38	1.72	.14	1.77
4	Education	.40	1.22	.16	1.26
5	Age	.41	1.13	.02	1.18
6	Problem-focused Coping	.42	.76	-.12	.79
7	Presence of degenerative joint disease	.43	.63	.07	.65
8	Difficulty	.44	.81	-.27	.84
9	Presence of Sjogren's Syndrome	.45	.58	.07	.59
10	Presence of Osteoarthritis	.45	.36	.01	.37
11	Dependence	.45	.29	-.14	.29
12	Tangible support	.45	.22	.07	.22
13	Racial/ethnic background	.46	.18	-.07	.17
14	Marital Status	.46	.07	-.02	.07
15	Income	.46	.14	.12	.14
16	Length of Illness	.46	.03	-.03	.03

*p <.01

**p <.05

The first category, "maintaining strong internal control," represented an issue raised by 86% of the subjects in this study. When questioned about what they did to help themselves cope with the many stressors of their illness, the women would repeatedly comment that no specific action or activity really helped them feel better. They simply had to force themselves to keep going. Although medications and rest might have allayed their pain for a short period of time, many of the women were aware they simply had to learn to live with a certain degree of discomfort at all times. In order to make it through each day, the women in this study stated that they had to "rely upon their own inner control."

Many of the women remarked that if they "would give in to their disease," they would "be done for it." The women in this study seemed to be saying that regardless of what type of outside assistance existed, the basic issue of survival for them was their desire to keep going.

The second category, "cutting back on physical activities," was an issue presented by nearly 75% of the subjects in this study. Not being able to do what they wanted to do when they wanted to do it, seemed extremely frustrating for the women. Most of them commented that they "had always been active" and that having rheumatoid arthritis prohibited them from doing the types of activities "they had always done." Cutting back on physical activities appeared to be something the women did out of necessity. Many of the subjects stated that if they "did not monitor the type and amount of activity engaged in," they would "pay the price later" with excruciating joint pain.

Having to monitor every physical movement may explain why these women tended not to list diversional activities as a means of coping with their illness. Most diversional activities involve some form of physical motion. Being constantly conscious of what one can and cannot physically accomplish literally creates the sense of being in a "straightjacket." It is no wonder that these women relied so heavily on their "inner control" to keep going. It was the one force that did not require physical motion.

In view of the findings presented under content analysis, as well as those findings presented earlier in this chapter, the next chapter will discuss the meaning of each finding and how it relates to nursing.

CHAPTER VI

DISCUSSION

This chapter presents the significant findings of this study and discusses their implications in regard to prior research, nursing practice, the conceptual framework of this study, and nursing theory development.

Background Information

This study asked the question, "What is the nature of the relationship among the rheumatoid arthritic woman's demographic/illness characteristics, coping focus, social support, functional status, and psychological well-being?" To answer the question, 92 rheumatoid arthritic women from three large health care institutions in a large metropolitan area were interviewed and asked to respond to questions on six different questionnaires. The profile these subjects presented was that of a woman who was: 1) 55 years of age, 2) married, 3) a housewife, 4) a high school graduate, 5) Caucasian, 6) in a household which earned an average annual income of $18,000, 7) afflicted with rheumatoid arthritis for an average of 15 years, and 8) not suffering from multiple arthritic conditions.

The data obtained from the interviews were analyzed by way of descriptive analysis, multiple regression/correlation analysis, and content analysis. The significant findings demonstrated in this study will be discussed using the study's conceptual framework as a guideline. Therefore, the significant relationships that were demonstrated among the five major factors (demographic/illness characteristics, coping focus, functional status, social support, and psychological well-being) identified in the framework will be used as a basis for presentation.

Demographic/Illness Characteristics: Factors Affecting Psychological Well-being

Of all the demographic/illness characteristics examined in this study, age and length of illness produced the greatest number of significant relationships with other study variables. These significant relationships included a negative correlation between age and tangible support, and positive correlations between age and dependence, age and difficulty, length of illness and dependence, and length of illness and difficulty. Although neither age nor length of illness demonstrated a significant relationship with psychological well-being in the rheumatoid arthritic women in this study, the many correlations demonstrated by these two variables suggest that they both have relevance in regard to components of at least two of the other factors (functional status and social support) identified in the conceptual framework as factors affecting psychological well-being.

Age. The aging process, as well as the rheumatoid arthritic disease process, creates bodily changes which can contribute to a decrease in physical capabilities (Katz, 1977; Bierman & Hazzard, 1973) and subsequently alter one's mobility. Therefore, finding a positive correlation between age and dependence upon others, and between age and difficulty in performing tasks would be expected.

The individual afflicted with rheumatoid arthritis is more likely to be in a middle and older age category (Katz, 1977) and hence more prone to encounter physical changes which could contribute to alterations in mobility. The women in this study certainly were no exception since most of them were 40 years of age and older with an average age of 55 years.

Having to rely upon others and encountering difficulty in performing tasks as one's age increases could be a stress-provoking situation for the rheumatoid arthritic woman. Such a situation could cause the rheumatoid arthritic woman to feel defeated and subsequently led to a decrease in her psychological well-being. As demonstrated in the content analysis of the two open-ended questions, cutting back on physical activities was one of the most frustrating experiences encountered by these women.

No prior research could be located to refute or support the correlations demonstrated in this study between age and dependence and between age and difficulty. Such correlations, however, suggest some type of interplay between the conceptual framework factors of demographic/illness characteristics and functional status.

Age also demonstrated a significant negative correlation to tangible support, indicating as the rheumatoid arthritic woman's age increased, her perceived tangible support decreased. When comparing this correlation to previous studies, it must be noted that the findings of this study are divergent. Schaefer, Coyne, and Lazarus (in press) found no correlation to exist between age and tangible support. However, they examined both men and women who were generally not afflicted with rheumatoid arthritis. This sample difference could have had an influence upon the conflicting findings demonstrated between this study and the study conducted by Schaefer, Coyne, and Lazarus (in press).

One, however, must use the negative correlation demonstrated between age and tangible support in this study with caution. When reliability coefficients were computed in this study, the coefficient found for the tangible support portion of the Social Support Questionnaire was very low (r = .27).

If one is to interpret the meaning of the negative correlation demonstrated in this study between age and tangible support, it must be recognized that as the rheumatoid arthritic woman ages, so do her significant others. As a result, friends and family members, because of their increasing age, may be incapable of physically providing assistance to her. Also with age comes retirement, and many retired individuals move to retirement centers or geographic locations which cater to retired individuals. Such moves may place friends and relatives in inaccessible locations, making them unavailable to the rheumatoid arthritic woman for tangible support. Thus social support systems of older rheumatoid arthritic women may themselves become more vulnerable or fragile with age due to the fact that the support systems also need support or have less support to give. Although no prior research could be located to support or refute the correlation demonstrated in this study between age and tangible support, such a correlation suggests that a relationship exists between components of two of the factors (demographic/illness characteristics and social support) in the study's conceptual framework.

Length of illness. Positive correlations were demonstrated in this study between length of illness and both dependence and difficulty. Considering the pathophysiological changes that occur with rheumatoid arthritis, these two correlations are understandable. Rheumatoid arthritis can be a progressively debilitating disease (Williams, 1979) and, as with many chronic illnesses, the longer an individual is afflicted with rheumatoid arthritis the greater the chances of undergoing progressive pathophysiological changes.

The women in this study were afflicted with rheumatoid arthritis for 1 to 69 years, with the average number of years of affliction being 15. Although all of the women interviewed in this study were under medical treatment, and most had been receiving treatment for many years, the debilitating effects of this illness could not be totally suppressed. As a result, joint changes did occur which lead to problems in mobility and, subsequently, to difficulty in performing tasks and to dependence upon others for assistance.

No prior research could be located to support or refute the correlations demonstrated in this study between length of illness and dependence upon others or between length of illness and difficulty. However, these two correlations are clinically sound when considering the pathophysiological ramifications of rheumatoid arthritis.

<u>Age and length of illness: Implications for nursing care</u>. Both variables, age and length of illness, and the correlations they demonstrated in this study have implications for nursing care. Knowledge of the correlations demonstrated between both age and length of illness and difficulty and dependence enables the nurse to identify rheumatoid arthritic women who are more likely to require physical assistance in carrying out tasks of daily living. Identificaton of these women allows the nurse the opportunity to initiate interventions which provide the rheumatoid arthritic woman with appropriate and necessary physical assistance.

The negative correlation demonstrated in this study between age and tangible support also has implications for nursing care. Awareness of the age of the rheumatoid arthritic woman aids the nurse in planning "age" relevant care. If the aged rheumatoid arhtritic woman perceives herself to be lacking a strong tangible support system, the nurse will need to explore, with her, alternative ways of meeting her social support needs. Knowing the rheumatoid arthritic woman's age can serve to alert the nurse to the fact that the rheumatoid arthritic woman may need to utilize services of a community health nurse, a religious organization, or a homemaker as alternative measures to a low tangible support system. Thus being cognizant of the relationships that exist among the various components of demographic/illness characteristics, functional status, and social support can assist the nurse in identifying those rheumatoid arthritic women who may require intervention in regard to physical assistance and tangible support.

Functional Status: A Factor Affecting Psychological Well-being

Of the three components of functonal status (dependence, pain, and difficulty), pain and difficulty demonstrated the greatest number of significant relationships to other study variables. The significant relationships demonstrated included positive correlations between pain and both length of illness and age. The significant negative correlations demonstrated were between pain and psychological well-being and between difficulty and psychological well-being. Such findings indicate: 1) as length of illness and age increased, pain also increased; 2) as pain increased, psychological well-being decreased; and, 3) as difficulty increased, psychological well-being decreased.

These findings suggest that pain and difficulty, as components of functional status, have an influence upon the demographic/illness components of the conceptual framework as well as upon the outcome variable, psychological well-being.

Pain. The findings of this study demonstrated a positive correlation between pain and length of illness. Although no empirical evidence could be found to substantiate this correlation, taking the pathophysiological aspects of this disease into consideration makes such a correlation clinically feasible. Rheumatoid arthritis can be a progressively debilitating disease (Katz, 1977). The longer one is afflicted with the disease, the greater the chances of undergoing severe joint changes and subsequent pain (Williams, 1979). Considering the majority of women in this study had been afflicted with rheumatoid arthritis for approximately 15 years, the presence of a positive correlation between pain and length of illness would be expected.

The findings of this study also demonstrated a positive correlation between pain and age. This correlation, however, was found to be divergent from prior study findings. Reported tolerance of superficial pain was found by Woodrow, Friedman, Siegelaub, and Collen (1972) to increase with age. Bellville, Forrest, Miller, and Brown (1971) found younger patients to have more reported pain initially after surgery than older patients, but younger patients reported less pain relief following the administration of an analgesic than did older patients. It must be remembered that the rheumatoid arthritic women in this study were experiencing chronic, deep pain and not superficial pain or acute postoperative pain as examined in prior research. This difference in pain experience helps explain the divergence in findings in this study from those of previous studies on pain and age.

Undoubtedly one of the most clinically significant correlations demonstrated in this study was the negative correlation demonstrated between pain and psychological well-being. This finding indicates that as the rheumatoid arthritic woman's pain increased, her psychological well-being decreased. Such a finding is expected when one looks at the unpredictability of the pain experience encountered by the rheumatoid arthritic individual. The presence of reported pain can vary not only from day to day, but sometimes even from hour to hour. Although therapies exist which assist in controlling the pain to some degree, many women afflicted with rheumatoid arthritis find that they must learn to live with a certain amount of pain at all times (Hart, 1979).

Rheumatoid arthritic pain can become so overwhelming that it totally preoccupies the afflicted person's thoughts (O'Dell, 1977). Bonica (1967) suggests that individuals with long-standing pain, such as the rheumatoid arthritic women in this study, do not become accustomed to the pain, but appear to suffer more as time passes. In addition, Bonica (1967) believes protracted pain produces both physical and psychological depletions in the afflicted person. Research has demonstrated that in the case of the rheumatoid arthritic individual anxiety and depression often occur during the course of the disease (Hart, 1974; Cobb, Schull, Harburg, & Kasl, 1969; Kasl & Cobb, 1969). Chronic pain can eventually produce an alteration in the person's attitude toward his environment and can become a consuming problem which totally dominates the afflicted person's life (Strauss & Fagerhaugh, 1977). Therefore, the negative correlation between pain and psychological well-being is understandable when considered within the context of previous research.

Difficulty. Difficulty, one of the components of functional status, was found to demonstrate a negative correlation with psychological well-being. Such a finding indicates that as difficulty in carrying out tasks increased for the rheumatoid arthritic woman, her psychological well-being decreased. In spite of the lack of available research to support this finding, the demonstrated relationship between difficulty and psychological well-being seemed feasible when considered within the context of the frustrations experienced by the rheumatoid arthritic women in this study.

Often during the interview sessions the women commented to the investigator that they "disliked having to stop doing various activities of daily living" simply because they found these activities to be "too difficult to do." Results of the content analysis conducted on the two open-ended questions posed at the end of the interview session indicated that many of the women in this study had always perceived themselves as being active. The awareness of having to "slow down" or "cut back" on physical activities was "extremely depressing" to these women. The inability to carry out tasks of daily living with ease could not help but create a deficit in the rheumatoid arthritic woman's psychological well-being. Thus, within the context of the content analysis of the two open-ended questions used in this study, the demonstrated correlation between difficulty and psychological well-being seems feasible.

Pain and difficulty: Implications for nursing care. As McCaffery (1979) points out, nurses have more contact with patients than any other member of the health care team and are in a position to make valuable contributions to any planned program of pain relief. By knowing that pain can lead to deficits in psychological well-being for the rheumatoid arthritic woman, nurses are in a key position for focusing on the afflicted woman's pain experience in the context of the total woman. Prior studies have demonstrated that long-standing pain such as that experienced by the rheumatoid arhtritic woman can become an overwhelming and overpowering experience (Hart, 1979; Bonica, 1967; Strauss & Fagerhaugh, 1977). Thus, if an increase in pain creates deficits in the rheumatoid arthritic woman's psychological well-being, nurses must recognize and intervene appropriately to assist the woman in controlling and modifying her pain experience.

For the nurse to intervene appropriately with the woman experiencing rheumatoid arthritic pain, situations which incite or intensify the pain must be identified (McCaffery, 1979). Not only must the nurse be sensitive to the occurrence of pain provoking situations, but also must educate the rheumatoid arthritic woman and her significant others in regard to the effect which these pain provoking situations may have upon her psychological well-being. By decreasing the likelihood of the pain experience for the rheumatoid arthritic woman, the chances of enhancing psychological well-being can be increased.

The negative correlations demonstrated in this study between difficulty in performing tasks and psychological well-being also have implications for nursing care. These implications include instructing other health care providers and significant others of the necessities of physically assisting the rheumatoid arthritic woman who is encountering difficulties in carrying out tasks. Such maneuvers may aid in alleviating some of the frustrations encountered by the afflicted woman and, subsequently, enhance her psychologcial well-being. Thus, being cognizant of the significant relationships that were demonstrated in this study among components of functional status, demographic/illness characteristics, and psychological well-being enables the nurse to plan and execute nursing care appropriate to the relationships demonstrated.

Social Support: A Factor Affecting Psychological Well-being

The perceived use of informational support and the perceived use of emotional support was found to differ between the Caucasian and non-Caucasian women in this study. Non-Caucasian rheumatoid arthritic women were found to perceive themselves as receiving more informational support while Caucasian rheumatoid arthritic women were found to perceive themselves as receiving more emotional support. No published research could be located to support or refute these findings.

Informational support. The fact that 37% of the non-Caucasian women in this study were Japanese had a decided cultural influence upon the findings demonstrated in regard to social support. These women stated that they had been brought to the United States by their military husbands and, therefore, were unfamiliar with the intricacies of the American culture. As a result, the Japanese women found it necessary to learn as much as they could about the culture in order to survive. As these women commented, "obtaining information from others about the culture" became a way of life. Thus informational support became a vital part of everyday living for these women. This became evident when the investigator observed the Japanese women repeatedly ask the physician, the nurses, and other Japanese women afflicted with rheumatoid arthritis for information about their disease process. They seemed much more atuned to seeking health care information about rheumatoid arthritis than did their Caucasian counterparts. The

Japanese women often stated to the investigator that "if they did not ask questions about things they did not understand," they could create "unnecessary problems for themselves." It seemed that seeking informational support became a culturally induced phenomenon for the Japanese women in this study which ultimately influenced how they dealt with their rheumatoid arthritis.

Emotional support. The finding that Caucasian women perceived themselves as receiving more emotional support than their non-Caucasian counterparts also must be examined in regard to the fact that 37% of the non-Caucasian women in this study were Japanese. During the interview sessions, the Caucasian women openly expressed their need to talk about their illness and its related ramifications with family and friends. This did not seem as apparent in the non-Caucasian women who stated that they did not want to bother family and friends with their problems. The non-Caucasian women, particularly the Japanese women, stated that "rheumatoid arthritis is my problem and I do not feel it necessary to share my problems about my illness with others." Such a statement is in keeping with the basic Japanese cultural principle of maintaining control and self-restraint in regard to emotions and sentiments (Hasegawa, 1966).

Thus the Japanese women appeared less likely to seek emotional support from others than did their Caucasian counterparts. The high percentage of Japanese women in the non-Caucasian group in this study undoubtedly influenced the finding that Caucasian rheumatoid arthritic women perceived themselves as receiving more emotional support than non-Caucasian rheumatoid arhtritic women. Although the findings of this study did not demonstrate social support to have a significant relationship with psychological well-being in the rheumatoid arthritic women, the differences demonstrated between the types of social support used in regard to racial/ethnic background suggests relationships exist among the conceptual framework components of social support and demographic/illness characteristics.

Informational and emotional support: Implications for nursing care. The fact that in this study both informational support and emotional support demonstrated significant differences in perceived use in regard to racial/ethnic background has implications for nursing care. Knowing the non-Caucasian women in this study utilized informational support to a greater extent than their Caucasian counterparts suggests to the nurse the importance of providing necessary information to the non-Caucasian women about rheumatoid arthritis and its related therapies. For example, the Japanese women in this study often sought information about rheumatoid arthritis from health care providers as well as from other Japanese women afflicted with the disease. This suggests to the nurse the importance of developing and fostering an informational support system for rheumatoid arthritic women based upon their similar racial/ethnic backgrounds. Such a support system provides a means of disseminating information needed by the non-Caucasian rheumatoid arthritic women, as well as providing a mechanism for cultural validation of the information obtained.

In comparison, the Caucasian rheumatoid arthritic women in this study utilized emotional support more readily than their non-Caucasian counterparts. This finding suggests to the nurse the importance of encouraging the Caucasian woman to seek out and utilize emotional support from her significant others when attempting to cope with the stressors of her illness. Discussing with significant others how she feels about the stressors of rheumatoid arthritis may facilitate her psychological well-being. Suggesting the use of rheumatoid arthritic self-help groups is another means of providing emotional support and may be beneficial if the rheumatoid arthritic woman is concerned about "over-taxing" her significant others with the ramifications of her illness. Thus being cognizant of the significant differences demonstrated in this study between racial/ethnic background and types of social support used enables the nurse to assist the rheumatoid arthritic woman in developing and/or fostering relevant social supports based upon her racial/ethnic background.

Coping Focus: A Factor Affecting Psychological Well-being

Of the two coping focuses, problem-focused coping and emotion-focused coping examined in this study, only emotion-focused coping demonstrated significant relationships to other variables in the study. Emotion-focused coping was found to be negatively correlated with both education and psychological well-being. Such findings indicated that as education decreased, emotion-focused coping increased, and as emotion-focused coping increased, psychological well-being decreased.

Emotion-focused coping. The negative correlation demonstrated between emotion-focused coping and education suggests that a rheumatoid arthritic woman with a lower educational level is more likely to utilize emotion-focused coping as a means of dealing with the stressful ramifications of her illness. Having a lower educational level possibly hinders a rheumatoid arthritic woman's ability to effectively problem-solve and thus use problem-focused coping. According to Lazarus (1978), problem-solving coping involves changing the stressful situation by altering one's offending actions or by altering the threatening environment. By comparison, emotion-focused coping is palliative in nature and involves regulating emotional distress by way of intrapsychic processes. Thus having less education may prevent the rheumatoid arthritic woman from developing her skills in problem-solving and, hence, her ability to use problem-solving coping. However, no research could be located to support or refute such a speculation.

The negative correlation demonstrated between emotion-focused coping and psychological well-being suggests that emotion-focused coping may be an ineffective means of coping with the stressors of rheumatoid arthritis. The investigator was not surprised to find emotion-focused coping being used by the rheumatoid arthritic women since prior research has noted an increase in emotion-focused coping with health related stressors (Folkman & Lazarus, 1980). However, it was surprising to find that emotion-focused coping was not enhancing the rheumatoid arthritic woman's psychological well-being. The possible reasons for the demonstrated negative relationship between emotion-focused coping and psychological well-being may include the facts that: 1) pain may have been influencing the rheumatoid arthritic woman's ability to effectively use emotion-focused coping as a means of enhancing psychological well-being; 2) being low on psychological well-being may have forced the rheumatoid arthritic woman to turn to emotion-focused coping since other coping strategies had failed; or, 3) the emotion-focused coping instrument may have been operationally linked with the psychological well-being instrument, thus indicating that the same phenomenon was being measured in two different ways. Although no published research could be located which supports or refutes the correlations demonstrated in this study between emotion-focused coping and psychological well-being, the correlations do suggest a relationship exists between the conceptual framework components of coping focus and psychological well-being.

Emotion-focused coping: Implications for nursing care. Since the rheumatoid arthritic woman who manifests a low educational level utilizes emotion-focused coping, it would be conceivable to contend that the nurse should foster emotion-focused coping as a means of enhancing psychological well-being. However, in view of the finding in this study that emotion-focused coping demonstrated a negative correlation with psychological well-being, giving such advice would be ill-founded. Rather, it is important for the nurse to know that an increased use of emotion-focused coping by the rheumatoid arthritic woman (regardless of educational level) may serve as a signal that difficulties with psychological well-being are occurring.

Carrying out longitudinal, routine, systematic assessment of the increased use of emotion-focused coping in the rheumatoid arthritic woman is imperative since the nurse is looking at patterns of long-term coping. Awareness of an increased use in emotion-focused coping over time serves to alert the nurse that psychological intervention is needed by the rheumatoid arthritic woman who is attempting to cope with the stressful ramifications of her illness. Such an assessment should become an integral part of the total nursing assessment procedure. Thus being cognizant of the significant relationships demonstrated in this study among the conceptual framework components of coping focus, demographic/illness characteristics, and psychological well-being can facilitate the nurse in planning and carrying out nursing care.

Psychological Well-being

Of all the variables examined in this study, the two which demonstrated the greatest predictive power in regard to psychological well-being in the rheumatoid arthritic women were pain and emotion-focused coping. Pain demonstrated the greatest amount of predictive power followed by emotion-focused coping. Both variables were negatively correlated to psychological well-being, indicating that as both pain and emotion-focused coping increased in the rheumatoid arthritic woman, psychological well-being decreased. No prior research could be located to support or refute such a finding.

In attempting to explain the rationale for this finding, one must keep in mind the overriding intensity the rheumatoid arthritic woman's joint pain inflicts on her. As mentioned previously, chronic pain in the rheumatoid arthritic woman can become so overwhelming that it totally preoccupies the afflicted woman's thoughts (O'Dell, 1977).

This was apparent during the interview sessions when the women stated that they had to "plan daily activities" around the unpredictable trends of their joint pain. When the joint pain was slight or absent, the rheumatoid arthritic women would attempt to make up for lost time by trying to do all of their daily activities during pain-free moments. Wiener (1975) also noted this to be true in her qualitative study of rheumatoid arthritic men and women.

The phenomenon of "planning activities" around the unpredictable trends of pain-free moments is further understood when taken within the context of the positive correlations demonstrated in this study between pain perception and both age and length of illness. The combined effects of age and length of illness on the perception of pain may have created a compounding influence upon many of the subject's functional status. This compounding influence on functional status may have created further assaults upon the rheumatoid arthritic woman's psychological well-being. Thus with the compounded functional status effects demonstrated by many of the women in this study, one would expect to find pain creating an adverse influence upon the rheumatoid arthritic woman's psychological well-being.

Emotion-focused coping, the second most significant predictor of psychological well-being in this study was examined in conjunction with pain. As stated previously, the investigator speculated that emotion-focused coping might be positively correlated with psychological well-being, since Folkman and Lazarus (1980) found emotion-focused coping to be associated with health care situations. However, Folkman and Lazarus (1980) did not examine a rheumatoid arthritic population, nor did they examine emotion-focused coping in relation to psychological well-being in the health care situations of their sample. Within the context of prior research, no findings could be located to help explain why emotion-focused coping might be negatively correlated to psychological well-being in the rheumatoid arthritic woman.

In attempting to explain the rationale for the relationship that was demonstrated between pain and emotion-focused coping in relationship to psychological well-being, it may be necessary to view emotion-focused coping as an attempt on the part of the rheumatoid arthritic woman to deal with her long-standing pain. However, the presence of pain may be so overwhelming for the rheumatoid arthritic woman that emotion-focused coping is not sufficient for dealing with the pain and, ultimately, for enhancing psychological well-being. Rather the presence of emotion-focused coping may be acting as an indicator, along with pain, to the health care provider that the rheumatoid arthritic woman is having difficulty in coping.

An increased use in emotion-focused coping by the rheumatoid arthritic woman might act as a signal to the health care provider that the rheumatoid arthritic woman is resorting to more self-controlling means of dealing with the stress of painful joints. This is possible since the purpose of emotion-focused coping is to manage the somatic and subjective components of the stress related situation by mobilizing one's intrapsychic forces (Lazarus, 1978). Robinson, Kirk, Frye, and Robertson (1972) noted in their study that individuals afflicted with the pain of rheumatoid arthritis tended to be more introverted than their controls. Such findings suggest that the presence of chronic pain in the rheumatoid arthritic woman could lead to greater introversion. The rheumatoid arthritic woman may be manifesting her introvertive tendencies by resorting to a more personal internally controlled means of coping, such as emotion-focused coping. Instead of being a means which enhances psychological well-being, an increased use of emotion-focused coping in the rheumatoid arthritic woman may be acting as an indicator to others that the stress of pain in this disease is becoming overwhelming and unmanageable.

On the other hand, it is possible that an increase in pain perception may have led to a decrease in psychological well-being which, in turn, led to an increase in emotion-focused coping. Being low on psychological well-being may have forced the rheumatoid arthritic woman in this study to turn to emotion-focused coping since in the past other coping strategies failed. However, whichever explanation proves to be correct, the correlation demonstrated between pain and emotion-focused coping in relationship to psychological well-being in this study suggests that pain and emotion-focused coping were the best predictors of psychological well-being in the rheumatoid arthritic woman.

Psychological well-being: Implications for nursing care. Knowledge that both pain and emotion-focused coping, in combination, have influence upon the rheumatoid arthritic woman's psychological well-being has important implications for nursing care. As pointed out previously, providing the rheumatoid arthritic woman with measures that can alleviate or decrease her pain experience can facilitate enhancing her psychological well-being. Such measures include identifying and exploring with the rheumatoid arthritic woman a variety of modalities for dealing with her pain, as well as those environmental and personal situations which can incite or intensify her pain experience.

Being aware of the presence of an increased use of emotion-focused coping, along with the presence of pain, can aid in alerting the nurse to the possibility of a decrease in the rheumatoid arthritic woman's psychological well-being. Since emotion-focused coping was identified in this study to be negatively correlated with psychological well-being, it seems best for the nurse, at this time, to use the presence of emotion-focused coping (in the presence of pain) as a signal that difficulties in psychological well-being are likely to occur. Thus, it will be necessary for the nurse to systematically assess the rheumatoid arthritic woman's pain experience, as well as her use of emotion-focused coping.

Summary Profile

In summary, the findings in this study presented a subject profile of a rheumatoid arthritic woman who was: 1) 55 years of age, 2) married, 3) a housewife, 4) a high school graduate, 5) Caucasian, 6) in a household earning an average annual income of $18,000, 7) afflicted with rheumatoid arthritis for an average of fifteen years, and, 8) not suffering from multiple arthritic conditions.

The above described woman found coping with unpredictable, chronic joint pain to be one of her most overwhelming and exasperating rheumatoid arthritic experiences. Because of the intense pain she experienced, physical activities which once were easy for her to carry out became difficult for her to do. The mecurial nature of the joint pain forced her into living each day as a totally separate life experience. For example, it was difficult for her to make plans to have friends over for dinner or for her to schedule an evening out due to the unpredictable aspects of her pain. In an attempt to cope with the overwhelming effects and unpredictable nature of her joint pain, the profiled woman found it necessary to utilize emotion-focused coping.

The emotion-focused coping used by the rheumatoid arthritic woman was palliative in nature and involved regulating emotional distress by way of intrapsychic processes. The use of emotion-focused coping, no doubt, was brought on by the fact that the profiled woman found, regardless of what she did therapeutically to control her pain, the pain never totally subsided. She simply had to learn to live with a certain amount of pain at all times. Thus the intrapsychic aspects of emotion-focused coping appeared to her to be the best approach to coping with the unpredictable nature of her pain.

Unfortunately, emotion-focused coping was not demonstrated to be a beneficial means of coping for the rheumatoid arthritic woman in that it failed to enhance her sense of psychological well-being. It seemed that emotion-focused coping served only as a signal to others that the frustrations of rheumatoid arthritic joint pain were becoming unmanageable and overpowering for the profiled woman. It appeared that the presence of pain was so overwhelming that it negated any contribution made toward psychological well-being by other factors such as emotion-focused coping.

Thus in order to "keep going" in life, mobilizing and maintaining a sense of "internal control" was the means used by the profiled woman. She often stated a need to "force herself to carry on" so as not to be "done in" by her disease. To make it through a day, the rheumatoid arthritic woman believed she had to rely upon herself to cope with the intensity of her pain. Thus, regardless of what type of outside assistance existed, the basic issue of survival for the profiled rheumatoid arthritic woman was her personal "internal control."

Significant Findings and the Conceptual Framework of the Study

The conceptual framework of this study proposed a relationship existing among the rheumatoid arthritic woman's demographic/illness characteristics, functional status, coping focus, social support, and psychological well-being. The findings of this study demonstrated individual relationships between: 1) age and dependence, 2) age and difficulty, 3) length of illness and dependence, 4) length of illness and difficulty, 5) age and tangible support, 6) pain and length of illness, 7) pain and age, 8) pain and psychological well-being,

9) difficulty and psychological well-being, 10) racial/ethnic background and informational support, 11) racial/ethnic background and emotional support, 12) emotion-focused coping and education, 13) emotion-focused coping and psychological well-being, and 14) pain and emotion-focused coping in regard to psychological well-being. Thus conceptual relationships were demonstrated between: 1) demographic/illness characteristics and functional status, 2) demographic/illness characteristics and social support, 3) functional status and psychological well-being, 4) coping focus and demographic/illness characteristics, 5) coping focus and psychological well-being, and, 6) functional status and coping focus in relationship to psychological well-being.

Although this study's conceptual framework provided support for the research questions posed, it did not appear to be comprehensive enough to cover all of the complexities of the coping process manifested by the rheumatoid arthritic women interviewed. This belief was based upon the fact that only variables which indicated a decrease in psychological well-being (pain and emotion-focused coping) emerged during the multiple regression/correlation analysis. None of the variables examined indicated a positive correlation to psychological well-being.

It is possible that pain, the single most significant predictor of psychological well-being was so overwhelming in the rheumatoid arthritic woman that it negated any positive contribution made by the other variables toward psychological well-being. Chronic pain can eventually consume and dominate the life of the afflicted person (Bonica, 1967; Strauss & Fagerhaugh, 1977). This might have been happening to the rheumatoid arthritic women in this study. However, in examining the qualitative data of this study, it is questionable whether a certain personal attribute manifested by many of the rheumatoid arthritic women in this study was missing from the study's conceptual framework. This personal attribute emerged during both the data gathering sessions (while carrying on informal conversations with the subjects) and the content analysis of the two open-ended questions posed at the end of the interview session.

Many of the rheumatoid arthritic women in this study repeatedly would comment that regardless of how painful their joints would become, they knew that making it through the day was dependent upon their "own doing." Depending upon others may have been a physical necessity at times, but relying upon oneself emotionally, these women remarked, was "most important." As one woman stated, "No one else lives in this crippled, painful body but me, and I alone have to come to grips with this damned disease. If I give in to rheumatoid arthritis, I'm done for, and I may as well curl up in a ball and die." Such a statement reflects the "internal control" manifested by many of the rheumatoid arthritic women in this study.

Prior studies on control and its relationship to psychological well-being have demonstrated that individuals who perceive themselves as having control over their own situation are more likely to cope successfully with the stressful ramifications of the situation (Janis & Rodin, 1979). A number of studies have demonstrated that when individuals are allowed actual control of painful stimuli, an enhanced tolerance of the noxious stimuli occurs (Averill, 1973; Kanfer & Seider, 1973; Seligman, 1975). Thus including the concept of internal control in the conceptual framework and quantitatively measuring it could possibly have provided additional information on what factors contribute to psychological well-being in the rheumatoid arthritic woman.

The "internal control" manifested by these women appears congruent with the concept from Rotter's (1966) social learning theory of internal-external control of reinforcement. According to Rotter (1966), internal-external locus of control describes the degree to which a person believes that reinforcements are contingent upon his own behavior. Internally controlled individuals believe reinforcements are contingent upon their own behavior, attributes, or capacities. Externally controlled persons are ones who believe reinforcements are not under their personal control, but rather under the control of powerful others, luck, fate, or chance. By adding the component of "internal control" to the conceptual framework of this study, assistance may have been provided in identifying and describing the nature of the relationships among the variables which enhance psychological well-being in the rheumatoid arthritic woman.

Significant Findings and Nursing Theory Development

Nursing research is needed in order to develop a sound theoretical base upon which nursing activities can be built. In the past, many of the activities carried out by nurses were based upon speculation or historical practices, rather than upon a sound theoretical premise. Today nurses are questioning many of the activities which they have been taught to carry out because these activities lack a sound scientific basis.

However, before one plans and executes a nursing study, it is necessary to identify where the study fits in regard to the total picture of nursing theory development. Dickoff and James (1968) have identified four levels of theories which serve to guide nursing in its endeavors at theory development. These four theory levels consist of factor-isolating theories, factor-relating theories, situation-relating theories, and situation producing theories.

Factor-isolating theories are the most basic kind of theories and serve the purpose of isolating and describing factors. Factor-relating theories (or situation-depicting theories) relate factors by suggesting connections that exist among the theoretical concepts. Situation relating theories are those theories that actually predict relationships among concepts or factors and then test and confirm or not confirm the relationships predicted. Situation-producing theories or prescriptive theories are the type of theories that not only predict, but actually contain prescriptions for activities to bring about the goals defined within the theories themselves.

This study fits into the theoretical category of factor-relating or situation-depicting since it is a study that describes connections among concepts. The relationships demonstrated among the concepts examined in this study provide the nurse with a factor-relating paradigm which can assist in identifying an describing those rheumatoid arthritic women who are likely to: 1) encounter difficulties in performing tasks of daily living, 2) use emotion-focused coping, 3) lack tangible support, 4) use informational support, 5) use emotional support, and, 6) encounter difficulties in achieving psychological well-being. Thus the findings of this study have generated descriptive information about the psychosocial situation of the woman afflicted with rheumatoid arthritis.

Since theories are ordered so that higher theory development presupposes the activities, as well as the end products of lower theory development, the next step in examining the psychosocial aspects of rheumatoid arthritis in women is to design a study which is situation-relating. Therefore, it is logical to design a research project which predicts relationships among the concepts already identified and described in this study and then test and confirm or not confirm those predictions made. Such an act would facilitate the continual development of a theory addressing the psychosocial aspects of women afflicted with rheumatoid arthritis.

CHAPTER VII

CONCLUSIONS

This chapter consists of an overview of the study and its findings, a discussion of the limitations and implications of the study, and suggestions for further research.

Summary of the Study

The purpose of this study was to identify and describe the nature of the relationship among variables which could contribute to psychological well-being in the woman afflicted with rheumatoid arthritis. Prior research has pointed out that an increase in stress and a decrease in the psychological well-being can lead to increased incidence in the development of illness brought on by alterations in one's immunity functions (Southarm, 1969; Amkraut & Solomon, 1974). Since the most widely accepted theory concerning causality of rheumatoid arthritis is one related to immune factors, it seemed only feasible to examine variables that could enhance psychological well-being in rheumatoid arthritic women.

The framework of this study was Lazarus' (1978) paradigm of stress and coping, an approach to stress and coping that emphasizes cognition, transaction, and perception. The basic premise of this paradigm rests on the notion that the way in which a person appraises or construes his or her relationship with the environment determines whether or not the individual perceives his/her situation as a stressful event. Lazarus' (1978) paradigm involves the individual's mental process of placing an event in one of three evaluative categories (i.e., benign-positive, irrelevant, or stressful) by way of three appraisal forms (i.e., primary appraisal, secondary appraisal, and reappraisal). Once the individual has perceived an event as stressful, he/she mobilizes his/her coping modes (i.e., information-seeking, direct action, inhibition of action, intrapsychic processes, and seeking social support) to manage environmental and internal demands that are taxing or exceeding the person's resources.

Lazarus (1978) believes the coping modes serve two major purposes: 1) problem-solving which involves changing the situation for the better (if possible) by either altering one's own offending action or by altering the damaging or threatening environment, and 2) regulation of emotional distress (palliative) which involves managing the somatic and subjective components of stress related emotions so that they do not lead to damage or destruction of morale or social functioning. Lazarus' paradigm points out an individual will use any combination of five coping modes (information-seeking, direct action, inhibition of action, intrapsychic modes, and seeking social support) in an attempt to deal with an event that has been appraised as stressful.

How effectively one copes with a stressful event cannot be judged solely on how well it removes the problem or hardship from the person's life (Pearlin & Schooler, 1978). Rather, the success of the coping behavior needs to be determined by how it enhances one's general sense of psychological well-being. Therefore, being aware that rheumatoid arthritis has many stress producing ramifications (i.e., presence of pain and disabling effects) and that a decrease in psychological well-being can contribute to the occurrence of further illness, the major research question posed for this study was, "What is the nature of the relationships among the rheumatoid arthritic woman's demographic/illness characteristics, coping focus, social support, functional status, and psychological well-being?" It was the intent of the investigator to examine the relationships that exist among the variables in each of the conceptual components, as well as identify and describe those variables which were the best predictors of psychological well-being in the rheumatoid arthritic woman. A conceptual framework was developed which diagramatically demonstrated the speculated relationships that existed among the five conceptual components (demographic/illness characteristics, coping focus, social support, functional status, and psychological well-being) listed in the major research question. The rationale for these examinations was to enhance the identification of rheumatoid arthritic women who were more likely to encounter difficulties in regard to psychological well-being.

To accomplish the intended purpose of this study, a cross-sectional survey design was selected. This method of data collection was aimed at women diagnosed with classical or definite rheumatoid arthritis and being seen as out-patients in one of three Rheumatology Clinics located in a large urban area on the west coast.

The collection of data was accomplished through the use of structured questionnaires that were administered by the investigator to each subject through the interview process. A total of 110 women were approached about participating in the study and 92 of these women consented to be interviewed. Each of the 92 women responded to the following six questionnaires: 1) Demographic/Illness Data Questionnaire, 2) Coping Questionnaire, 3) Functional Status Index Questionnaire, 4) Social Support Questionnaire, 5) Bradburn Morale Scale, and, 6) Qualitative Data Questionnaire.

The Demographic/Illness Data Questionnaire was an instrument designed by the investigator for the sole purpose of obtaining pertinent demographic/illness data on each subject in this study. The Coping Questionnaire was a self-report questionnaire designed in 1977 by Lazarus and associates for the purpose of eliciting information about strategies which an individual uses to deal with a specific event. The Functional Status Index Questionnaire was a self-report questionnaire developed by Alan Jette (1978) for the purpose of assessing an individual's perception of his/her functional ability in terms of dependence upon others, pain, and difficulty in performing tasks. The Social Support Questionnaire was a self-report questionnaire designed by Cohen and Lazarus (1977) as a means of measuring separately the emotional, tangible, and informational functions of social support. The Bradburn Morale Scale was a self-report index designed by Bradburn and Caplovitz (1969) for the purpose of measuring psychological well-being. The Qualitative Data Questionnaire was an instrument designed by the investigator for the purpose of allowing the subject an opportunity to verbalize what it was like to live with the stressful aspects of rheumatoid arthritis.

Validity and reliability of the Coping Questionnaire (Folkman & Lazarus, 1980), Functional Status Index Questionnaire (Jette, 1980b), Social Support Questionnaire (Schaefer, Coyne, & Lazarus, in press), and Bradburn Morale Scale (Bradburn & Caplovitz, 1969) were established in previous research. Reliability tests were obtained on each of these instruments for the present population and each, with the exception of the tangible support portion of the Social Support Questionnaire, demonstrated acceptable reliability coefficients.

Data for this study were analyzed by using an overall data analytic strategy of step-wise multiple regression/correlation analysis. This approach allowed for understanding the effect which two or more independent variables (i.e., age, educational level, marital status, income, occupation, racial/ethnic background, length of illness, presence of multiple arthritic conditions, emotion-focused coping, problem-focused coping, tangible support, informational support, emotional support, dependence, pain, and difficulty) had upon the dependent variable (i.e., psychological well-being). Since multiple regression/correlation analysis is a powerful and flexible data analytic system that has both descriptive and inferential functions, it can yield measures of whole relationships of a research component to the dependent variable, as well as partial or unique relationships (Cohen & Cohen, 1975).

Through multiple correlations and regression, it became possible to produce results that explained the multiple effects of demographic/illness characteristics, functional status, coping focus, and social support in relationship to psychological well-being. In addition, use of analysis of variance provided for the assessment of the unique variance contributed by the individual variables. A step-wise approach was selected in order that all potential predictors of psychological well-being could be considered simultaneously and through which the combination of variables providing the most predictive power could be chosen. In selecting the sequence, the first step involved statistically identifying the single best predictor of psychological well-being. This predictor was found to be the variable, pain. The second variable to enter the regression equation was emotion-focused coping. It produced the largest variance in psychological well-being when used simultaneously with pain, the variable selected in the first step of the analysis. The third variable to enter the regression equation was informational support. It produced the largest variance in psychological well-being when used simultaneously with pain and emotion-focused coping, the variables selected in steps one and two, respectively. The step-wise procedure continued in the same manner until all the remaining independent variables (informational support, educational level, age, problem-focused coping, difficulty, presence of multiple arthritic conditions, dependence, tangible support, racial/ethnic background, marital status, income, length of illness) were entered into the regression equation.

In addition to the multiple regression/correlation analysis, content analysis was carried out on the data obtained from the two open-ended questions posed to the subjects by the investigator at the end of each interview session. The unit of analysis selected was the theme. The theme selected was, "What is it like to live with the stressful ramifications of rheumatoid arthritis?" The theme was further developed into two categories around the context of "what the subject matter said." These two categories consisted of: 1) "maintaining personal internal control" and 2) "cutting back on physical activities." Interpretation of the content analyzed was done by the direct method of inference (Berelson, 1954; Holsti, 1969; Kerlinger, 1973).

Summary of Research Findings

The presentation of the research findings was dictated by the conceptual framework of this study. Therefore, the significant findings were presented and discussed under the five major components (demographic/illness characteristics, functional status, social support, coping focus, and psychological well-being) of the conceptual framework. These findings were as follows (See Figure III):

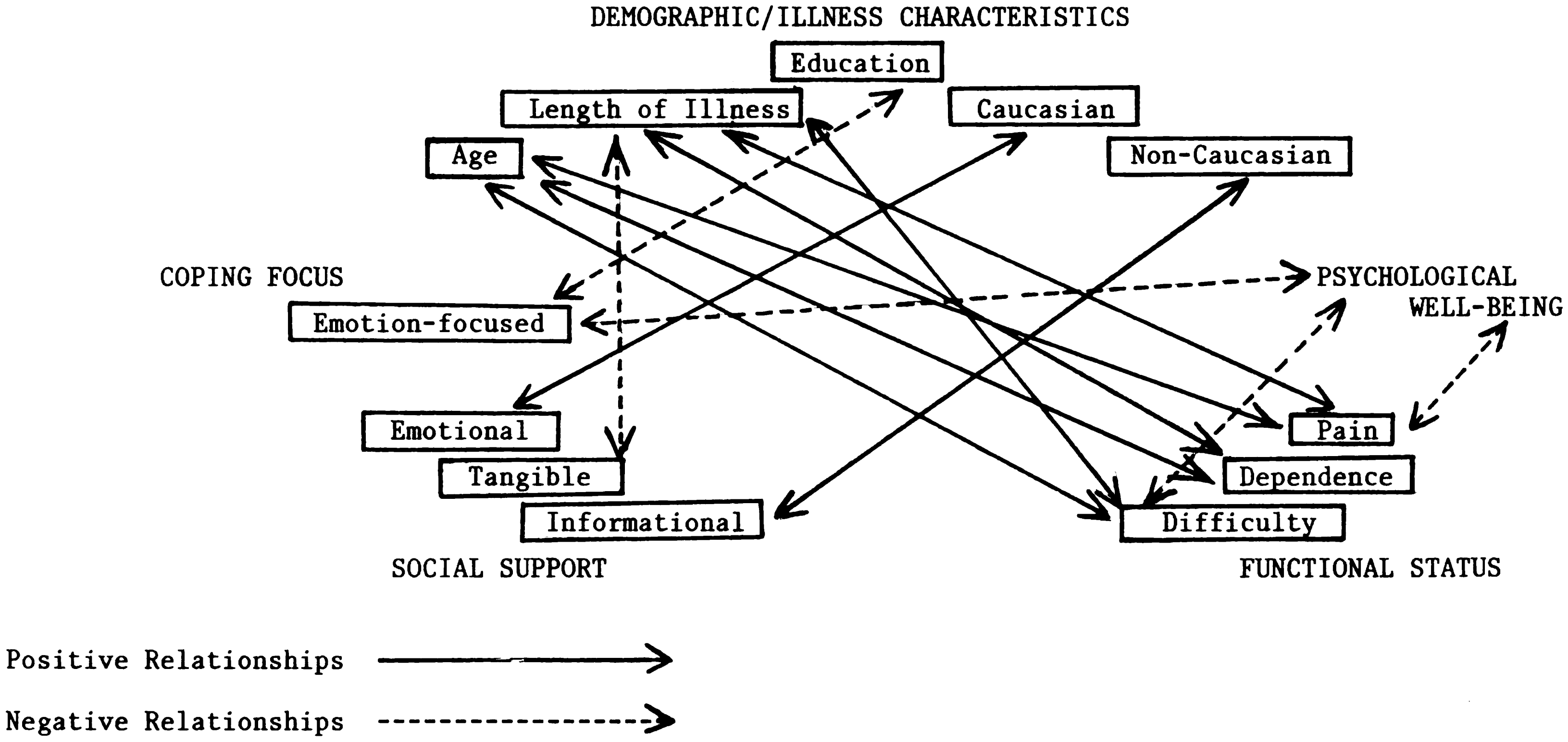
1) Demographic/Illness Characteristics

Age demonstrated positive correlations with both dependence ($r = 0.371$, $p < .001$) and difficulty ($r = 0.211$, $p < .025$) and a negative correlation with tangible support ($r = -0.273$, $p < .01$). Such findings suggest that as age increased in the rheumatoid arthritic woman, so did dependence upon others and difficulty in performing tasks. However, perceived tangible support decreased.

Length of illness demonstrated a positive correlation with both dependence ($r = 0.343$, $p < .001$) and difficulty ($r = 0.315$, $p < .001$). Such findings suggest that as length of illness increased in the rheumatoid arthritic woman, so did dependence upon others and difficulty in performing tasks.

2) Functional Status

Pain demonstrated positive correlations with both age ($r = 0.244$, $p < .01$) and length of illness ($r = 0.217$, $p < .025$) and a negative correlation with psychological well-being ($r = -0.287$, $p < .01$). These findings suggest as age and length of illness increased in the rheumatoid arthritic woman, so did pain. However, as pain increased in the rheumatoid arthritic woman, psychological well-being decreased.



<u>Significant Relationships Demonstrated</u>
<u>Among Factors Affecting Psychological Well-being</u>
<u>in the Rheumatoid Arthritic Woman</u>
Figure III

Difficulty demonstrated a negative correlation with psychological well-being ($r = -0.265$, $p < .01$). This finding suggest as difficulty in performing tasks increased in the rheumatoid arthritic woman, psychological well-being decreased.

A decrease in psychological well-being related to functional status was further demonstrated in the content analysis of the two open-ended questions. The category that emerged was "cutting back in physical activities." Not being able to do what they wanted to do when they wanted to do it was extremely frustrating for the women in this study. Being constantly conscious of what one could and could not physically accomplish, literally, placed the rheumatoid arthritic women in this study in a "straightjacket."

3) Social Support

Differences in group means were demonstrated between Caucasian and non-Caucasian women in regard to both informational support and emotional support. These findings suggest that: 1) the non-Caucasian rheumatoid arthritic woman perceived herself as receiving more informational support than the Caucasian rheumatoid arthritic woman ($t = 2.00$, $p < .05$), and 2) the Caucasian rheumatoid arthritic woman perceived herself as perceiving more emotional support than the non-Caucasian rheumatoid arthritic woman ($t = 2.12$, $p < .05$).

4) Coping Focus

Emotion-focused coping demonstrated a negative correlation with both education ($r = -0.237$, $p < .01$) and psychological well-being ($r = -0.251$, $p < .01$). These findings suggest, in the rheumatoid arthritic woman, as educational level decreased, use of emotion-focused coping increased and as emotion-focused coping increased, psychological well-being decreased.

5) Psychological Well-being

Of all the variables examined by way of step-wise multiple regression/correlation analysis, pain and emotion-focused coping were found to be the best predictors of psychological well-being in the rheumatoid arthritic woman. Pain was the single best predictor ($R = -0.29$, $p < .01$) followed by emotion-focused coping ($R = -0.25$, $p < .05$). Both pain and emotion-focused coping were found to be negatively correlated to psychological well-being, indicating that as pain and emotion-focused coping increased, psychological well-being decreased.

In the content analysis it was found that to keep going in life, mobilizing and maintaining a sense of personal "internal control" was manifested by many of the women. To make it through a day, the rheumatoid arthritic women believed they had to rely upon themselves rather than outside factors in order to cope with the stressful ramifications of their illness.

Thus these findings suggest relationships exist among the various factors delineated in the study's conceptual framework. These include relationships between: 1) demographic/illness characteristics and functional status, 2) demographic/illness characteristics and social support, 3) functional status and psychological well-being, 4) coping focus and demographic/illness characteristics, 5) coping focus and psychological well-being, and, 6) functional status and coping focus in regard to psychological well-being. Such findings suggest the beginnings of a factor-relating paradigm concerning the psychological well-being of the rheumatoid arthritic woman.

Serendipitous Findings

It was interesting to note during the data gathering sessions that a sense of comradeship developed among many of the women who participated in this study. It was not uncommon to observe the women discussing with each other the fact they had been interviewed by the investigator.

On one occasion, a potential subject adamently refused to take part in the study. She proceeded to tell her fellow rheumatoid arthritic clinic patients about her decision not to take part in the study. She was promptly ostracized by the other women and told by them to "sit down and be quiet." It appeared that participating in the study was a mark of social significance among many of the rheumatoid arthritic women being seen in the three Rheumatology Clinics used as data gathering sites for this study. Quite possibly the importance placed upon participating in this study, by the rheumatoid arthritic women interviewed, was an indication of how necessary it was for these women to tell someone about the frustrations of living with their disease.

Implications for Nursing Care

Knowledge of the quantitative findings that were exemplified in this study enable the nurse to plan and execute appropriate nursing care. Being cognizant of the types of relationships demonstrated can guide the nurse in identifying and describing the rheumatoid arthritic woman who is likely to:

1) encounter difficulties in carrying out tasks of daily living.
2) use emotion-focused coping
3) lack tangible support
4) use informational support or emotional support
5) encounter difficulties in achieving psychological well-being.

In addition, the qualitative findings suggest to the nurse the importance of identifying and fostering the rheumatoid arthritic woman's attempts to achieve and maintain "internal control" as a means of coping with the stressful ramifications of her illness. Thus, knowledge of both the quantitative and qualitative findings demonstrated can facilitate in the assessment of the specific psychosocial needs of the woman afflicted with rheumatoid arthritis.

Limitations of the Study

Conceptual limitations. It became evident by the lack of demonstrated positive predictors of psychological well-being that the conceptual framework may not have been comprehensive enough to cover all the complexities of the coping process manifested by the rheumatoid arthritic women interviewed in this study. The content analysis suggested, that in many of the women, the presence of "internal control" existed. This factor was not quantitatively measured nor was it part of the conceptual framework designed for this study. Quite possibly the addition of the component "internal control" to the conceptual framework would have enhanced the likelihood of identifying positive predictors of psychological well-being in rheumatoid arthritic women.

It also is conceivable that the variable psychological well-being was not an appropriate outcome measure for assessing how well the rheumatoid arthritic woman was coping with the stressful ramifications of her illness. To achieve a general sense of psychological well-being, as measured by the Bradburn Morale Scale, may not be possible for rheumatoid arthritic women in lieu of their unpredictable and chronic joint pain. Therefore, using psychological well-being as an outcome measure for assessing coping behavior in rheumatoid arthritic women may not be appropriate.

Ethical limitations. Frequently the potential subjects in this study were introduced to the investigator by the potential subject's respective physician or by one of the clinic nurses. It was not uncommon during the introduction for either the physician or the nurse to "highly" recommend to the potential subject that she take part in this study. It is possible that some of the women who participated in this study felt coerced into participating by their respective health care providers. This coercion could have affected the types of responses given by these women. However, none of the women who participated stated they felt they had to take part in this study, nor did any of the women demonstrate displeasure about participating during the interview process.

Design limitations. The correlational survey, as a design, is deemed a useful approach for the development of knowledge which aims to determine the direction and magnitude of the relationship among phenomena. However, its limitations reside in its inability to determine a causal relationship. The correlational survey approach as used in this study aims to identify the relationship of the tendency of data to vary consistently. Thus, the findings of this study should be viewed within this context.

Sample limitations. Methodological considerations, such as sample, are very closely connected to generalization of the study's findings. Since this study used a correlational survey approach, it is tempting to generalize to other samples without carefully considering the sample from which the findings were obtained. Generalizations must be considered within the understanding that this sample consisted of a group of women who were predominantly Caucasian and who were primarily receiving their rheumatoid arthritic health care in military institutions. Each of these factors must be addressed when applying the findings of this study to other samples and to the larger population of rheumatoid arthritic women.

Instrument limitations. The structured research questionnaire has inherent difficulties in that questions must be relevant, clear, and contain sufficient response options to each question. In this study, with the exception of the tangible support section of the Social Support Questionnaire, no specific questions appeared to the investigator to pose problems during the interview process. The questions on the tangible support portion of the Social Support Questionnaire, however, frequently appeared to be irrelevant to the subjects. The women frequently stated to the investigator that the situations posed in the questionnaire did not apply to them.

A second instrument limitation was the assumption, on the part of the investigator, that each subject answered the questionnaires honestly and thoughtfully. The fact the investigator was present during the administration of each instrument to each subject could have influenced the subjects' honesty in responding. Unfortunately, there was no way for the investigator to assess the extent to which data collected was accurate since it was unverifiable. The investigator assumed each questionnaire was responded to honestly and thoughtfully.

A third instrument limitation was the fact that many of the questions in the six questionnaires were not specifically couched in the context of the rheumatoid arthritic experience (i.e., Coping Questionnaire, Social Support Questionnaire). Although the investigator, during the interview session, frequently reminded the subjects that the questions being asked were in reference to their rheumatoid arthritis, the fact the questions were not specifically written in the context of the rheumatoid arthritic experience could have caused the women to respond in a manner unrelated to their rheumatoid arthritis.

The length of the questionnaires was a fourth instrument limitation. Although the investigator's presence expedited the completion of each questionnaire, the women often visibly manifested some fatigue during the questionnaire administration. The presence of fatigue could have influenced the type of responses given by the women.

Finally, the emotion-focused coping portion of the Coping Questionnaire may have been operationally linked with the Bradburn Morale Scale, indicating that the same phenomenon may have been measured in two different ways. As a result the question is raised, "Was the emotion-focused portion of the Coping Questionnaire measuring coping, psychological well-being, or a mixture of both?" If the presence of both coping and psychological well-being exist in the emotion-focused portion of the Coping Questionnaire, such a fact may help explain why emotion-focused coping was negatively correlated with psychological well-being in rheumatoid arthritic women.

Data analysis limitations. A basic limitation of multiple regression/correlation analysis is its very purpose, that of looking at multiple relationships. As a result, findings are viewed from the standpoint of how multiple factors interrelated and not how they are perceived as unitary measures. Therefore, findings of this study must be discussed in terms of how the independent variables work in relation to changes in the dependent variables.

Suggestions for Future Research

The value of any research lies in the contributions it provides to the knowledge base of the phenomena being examined. A major contribution of this research was the descriptive data generated about the relationships among the rheumatoid arthritic woman's demographic/illness characteristics, functional status, coping focus, social support, and psychological well-being. However, replication is needed to verify the reliabilities of the findings.

In future studies investigators may want to add to the conceptual framework the component of personal "internal control." Addition of such a component may assist in shedding additional light on what factors contribute to psychological well-being in the rheumatoid arthritic woman. Previous studies using the component of "internal control" have examined its relationship to chronic conditions such as diabetes mellitus, obesity, and renal failure (Lowery & DuCette, 1976; Manno & Marston, 1972; Weaver, 1972). However, to date no published research exists which speaks to the concept of "internal control" and how it relates to rheumatoid arthritis.

Since rheumatoid arthritis is a chronic condition involving remissions and exacerbations, it would be advisible to examine the coping processes and coping stragegies utilized by the woman who is attempting to deal with the physiological changes imposed upon her by her disease. Therefore, future researchers may want to employ studies which examine the coping trends of the rheumatoid arthritic woman.

Comparing the coping trends and coping strategies of the rheumatoid arthritic woman to the woman afflicted with another type of chronic illness also would prove beneficial. Knowledge of the similarities and differences in coping between chronically ill groups would assist health care providers in planning and developing relevant psychosocial interventions based upon the type of afflicting illness.

Further examination into the use of social support systems by the rheumatoid arthritic women is needed. Many of the women in this study mentioned that they had to selectively use their social supports so as not to "unwittingly burn them out." Exactly how and when rheumatoid arthritic women negotiate their use of social supports remains an unexplored issue.

Finally, ascertaining from the rheumatoid arthritic woman what it means to have a sense of psychological well-being would be of value. Since the findings of this study produced no positive predictors of psychological well-being, it is possible that psychological well-being is not a feasible outcome for the coping process of the rheumatoid arthritic woman. Qualitative studies which focus on what the rheumatoid arthritic woman perceives a desired outcome in relationship to living with the stressful aspects of her disease would be advisable. Thus, given the present state of nursing practice and nursing science, further research studies are needed which concentrate on examining the various factors which contribute to the coping process in the rheumatoic arthritic woman.

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Appendices

Appendix I

Initial Interview

Appendix I

Initial Interview

Hello, Potential Subject's Name . My name is Vickie Lambert. I am a nurse, presently a doctoral candidate in Nursing Science at the University of California, San Francisco, who is interested in talking to women who have rheumatoid arthritis about how they cope with the various aspects of their illness. Would you be interested in talking to me about your arthritis? (I wait for a response. If the potential subject's response is "no," I thank her for her time and excuse myself. If the potential subject's response is "yes," I continue with the rest of the interview.).

Our talk would take approximately 60 minutes of your time and would involve you responding to some questions about your illness and how you deal with it, on six short questionnaires. I have consulted with your physician, and he/she is aware of my approaching you about the possibility of being in my study.

We would carry out our discussion and your responses to the questions in Room ___ which adjoins the clinic. I assure you that your scheduled appointment time with your physician will not be disrupted. Your identity in my study will never be revealed and you may withdraw from the study at any time. In addition, I will need your permission to look at your medical record (chart).

Would you be interested in taking part in my study? (If the potential subject consents, I ask her to read and sign a consent form [See Appendix VIII]. If the potential subject refueses, I thank her for her time. I excuse myself).

Appendix II

Demographic/Illness Data Questionnaire

Code#_____

Appendix II

Demographic/Illness Data Questionnaire

The following questions seek to obtain some general information about you. Please indicate the appropriate response for each of the following questions.

1. How old are you? (Specify)

   _______________ Years

2. What is your marital status?

   1. ( ) Married
   2. ( ) Widowed
   3. ( ) Separated
   4. ( ) Divorced
   5. ( ) Never Married

3. What is your occupation? (Specify)______________________________

4. What is your household income (include joint and shared incomes)? (Check only one)

   1. ( ) less than $5,000
   2. ( ) 5,000 - 9,999
   3. ( ) 10,000 - 14,999
   4. ( ) 15,000 - 19,999
   5. ( ) 20,000 - 24,999
   6. ( ) 25,000 - 29,999
   7. ( ) 30,000 - 34,999
   8. ( ) 35,000 - 39,999
   9. ( ) 40,000 - 44,999
   10. ( ) 45,000 - 49,999
   11. ( ) 50,000 - 54,999
   12. ( ) 55,000 - 59,999
   13. ( ) 60,000 - 64,999
   14. ( ) 65,000 - 69,999
   15. ( ) 70,000 and over

5. What is the highest grade of school that you have completed?

(Circle the correct number)

None 0

Elementary 1-2-3-4-5-6-7-8

High School 1-2-3-4

College 1-2-3-4

Professional or Graduate 1-2-3-4-5+

Technical 1-2

Other (Specify) ____________________

6. What is your primary racial/ethnic background?

(Check only one)

1. ( ) American Indian/Alaskan Native
2. ( ) Black/Afro-American
3. ( ) Chicano/Mexican-American
4. ( ) Chinese/Chinese-American
5. ( ) East Indian/Pakistani
6. ( ) Japanese/Japanese-American
7. ( ) Korean
8. ( ) Latino/Other Spanish-American
9. ( ) Filipino
10. ( ) Polynesian
11. ( ) Thai/Other Asian
12. ( ) Caucasian/Northern Europe
13. ( ) Caucasian/Southern Europe
14. ( ) Caucasian/Other (Specify) ____________
15. ( ) Other (Specify) ____________________

7. How long have you had symptoms of rheumatoid arthritis? (Specify)

_______________Years _______________Months

8. Please list the arthritic conditions (other than rheumatoid arthritis) which you have.

1) ____________________________

2) ____________________________

3) ____________________________

4) ____________________________

5) ____________________________

Appendix III

Coping Questionnaire

Code #______

Appendix III

Coping Questionnaire*

The purpose of this questionnaire is to find out the kinds of situations that trouble rheumatoid arthritic women in their day-to-day lives and how these women deal with these situations.

Please identify and describe for me the event or situation that has been the <u>most</u> <u>stressful</u> <u>to</u> <u>you</u> <u>in</u> <u>regard</u> <u>to</u> <u>your</u> <u>rheumatoid</u> <u>arthritis</u> <u>during</u> <u>the</u> <u>last</u> <u>month</u>. By stressful, I mean a situation which was difficult or troublesome, either because it made you feel bad or because it took effort to deal with it.

____

____

____

____

Thinking about the event or situation you have just described, respond "Yes" or "No" for each of the following items.

	YES	NO
1. Just concentrated on what you had to do next--the next step.	( )	( )
2. You went over the problem again and again in your mind to try to understand it	( )	( )
3. Turned to work or substitute activity to take your mind off things.	( )	( )
4. You felt that time would make a difference, the only thing to do was to wait.	( )	( )
5. Bargained or compromised to get something positive from the situation	( )	( )
6. Did something which you thought wouldn't work, but at least you were doing something.	( )	( )

---

*Developed as a group effort by: Patricia Benner, Judith Cohen, Susan Folkman, Allen Kanner, Richard S. Lazarus, Catherine Schaefer, Judith Wrubel, and others participated. However, major responsibility was carried by Catherine Schaefer, University of California, Berkeley, 1977.

		YES	NO
7.	Got the person responsible to change his or her mind	( )	( )
8.	Talked to someone to find out more about the situation.	( )	( )
9.	Concentrated on something good that could come out of the whole thing	( )	( )
10.	Criticized or lectured yourself.	( )	( )
11.	Tried not to burn your bridges behind you, but leave things open somewhat	( )	( )
12.	Hoped a miracle would happen	( )	( )
13.	Went along with fate; sometimes you just have bad luck	( )	( )
14.	Went on as if nothing had happened	( )	( )
15	Felt bad that you couldn't avoid the problem	( )	( )
16.	Kept your feelings to yourself	( )	( )
17.	Looked for the "silver lining," so to speak; tried to look on the bright side of things	( )	( )
18.	Slept more than usual.	( )	( )
19.	Accepted sympathy and understanding from someone	( )	( )
20.	Told yourself things that helped you to feel better	( )	( )
21.	You were inspired to do something creative	( )	( )
22.	Tried to forget the whole thing.	( )	( )
23.	Got professional help and did what they recommended.	( )	( )
24.	Changed or grew as a person in a good way.	( )	( )
25.	Waited to see what would happen.	( )	( )
26.	Did something totally new that you never could have done if this hadn't happened.	( )	( )
27.	Tried to make up to someone for the bad thing that happened.	( )	( )
28.	Made a plan of action and followed it.	( )	( )

		YES	NO
29.	Accepted the next best thing to what you wanted	( )	( )
30.	Let your feelings out somehow	( )	( )
31.	Came out of the experience better than when you went in	( )	( )
32.	Talked to someone who could do something concrete about the problem	( )	( )
33.	Got away from it for a while; tried to rest or take a vacation	( )	( )
34.	Tried to make yourself feel better by eating, drinking, smoking, taking medication, etc.	( )	( )
35.	Took a big chance or did something very risky	( )	( )
36.	Found new faith or some important truth about life	( )	( )
37.	Tried not to act too hastily or follow your first hunch	( )	( )
38.	Joked about it	( )	( )
39.	Maintained your pride and kept a stiff upper lip	( )	( )
40.	Rediscovered what is important in life	( )	( )
41.	Changed something so things would turn out all right	( )	( )
42.	Avoided being with people in general	( )	( )
43.	Didn't let it get to you; refused to think too much about it	( )	( )
44.	Asked someone you respected for advice and followed it	( )	( )
45.	Kept others from knowing how bad things were	( )	( )
46.	Made light of the situation; refused to get too serious about it	( )	( )
47.	Talked to someone about how you were feeling	( )	( )
48.	Stood your ground and fought for what you wanted	( )	( )
49.	Drew on your past experiences; you were in a similar situation before	( )	( )
50.	Just took things one step at a time	( )	( )

		YES	NO
51.	You knew what had to be done, so you doubled your efforts and tried harder to make things work	( )	( )
52.	Refused to believe that it had happened	( )	( )
53.	Made a promise to yourself that things would be different next time	( )	( )
54.	Came up with a couple of different solutions to the problem	( )	( )
55.	Accepted it, since nothing could be done	( )	( )
56.	Wished you were a stronger person--more optimistic and forceful	( )	( )
57.	Accepted your strong feelings, but didn't let them interfere with other things too much	( )	( )
58.	Wished that you could change what had happened	( )	( )
59.	Wished that you could change the way you felt	( )	( )
60.	Changed something about yourself so that you could deal with the situation better	( )	( )
61.	Daydreamed or imagined a better time or place than the one you were in	( )	( )
62.	Had fantasies or wishes about how things might turn out	( )	( )
63.	Thought about fantastic or unreal things (like the perfect revenge or finding a million dollars) that made you feel better	( )	( )
64.	Wished that the situation would go away or somehow be over with	( )	( )

Appendix IV

Functional Status Index Questionnaire

Code #______

Appendix IV

Functional Status Index Questionnaire*

Section I

Performance

In this first section of this questionnaire, I would like to know if you performed certain activities during the past seven days. For each activity you did not perform, I would like to know whether you could, but preferred not to do the activity; whether the activity was too difficult to do; or whether you simply could not do it.

HOW ABOUT WALKING INSIDE, DID YOU WALK INSIDE DURING THE PAST 7 DAYS. . .

(If activity was not performed, as. . .)

WAS IT BECAUSE YOU PREFERRED NOT TO DO IT, IT WAS TOO DIFFICULT TO DO, OR YOU SIMPLY COULD NOT DO IT. . .

Did the Activity	Could but Preferred Not To Do The Activity	Could not Or Too Difficult To Do The Activity	
			Walk inside
			Climb stairs
			Rise from a chair
			Do laundry
			Reach into low cupboards
			Open containers
			Do yardwork
			Dial a phone
			Write
			Drive a car
			Vacuum a rug
			Wash all areas of your body
			Put on pants
			Put on a shirt/ blouse
			Button a shirt/ blouse
			Attend meetings/ appointments
			Visit family/ friends
			Perform your job (if employed)

---

*Jette, A., Ph.D., Robert B. Brigham Hospital, Boston, 1978.

Section II

Functional Help

In this section of the interview, I am trying to measure the degree to which you used help to perform your daily activities on the average during the last seven days.

By help, I mean the extent to which you used equipment (such as a cane), whether you used human assistance (such as a friend or relative), or whether you used both equipment and human assistance.

I would like you to tell me how much help you used on the average during the past week to do each activity I will read to you.

Do you have any questions before we begin?

How much help did you use on the average during the past week to. . .

> (Give the questionnaire to the respondent and record her responses for each activity on the questionnaire.)

Section II

	Used no help	Used equipment	Used human assistance	Used equipment and human assistance	Comments
Walk inside					
Climb stairs					
Rise from a chair					
Do laundry					
Reach into low cupboards					
Open containers					
Do yardwork					
Dial a phone					
Write					
Drive a car					
Vacuum a rug					
Wash all areas of your body					
Put on pants					
Put on a shirt/blouse					
Button a shirt/blouse					
Attend meetings/appointments					
Visit family/friends					
Perform your job					

Section III

Pain

In this section of the interview, I am trying to measure the amount of pain you experienced when you performed your daily activities during the past week. For each activity, I would like you to judge the amount of pain you experience when doing it.

By pain, I mean the discomfort or sensation of hurting you experienced when doing the activity. Do you have any questions before we start?

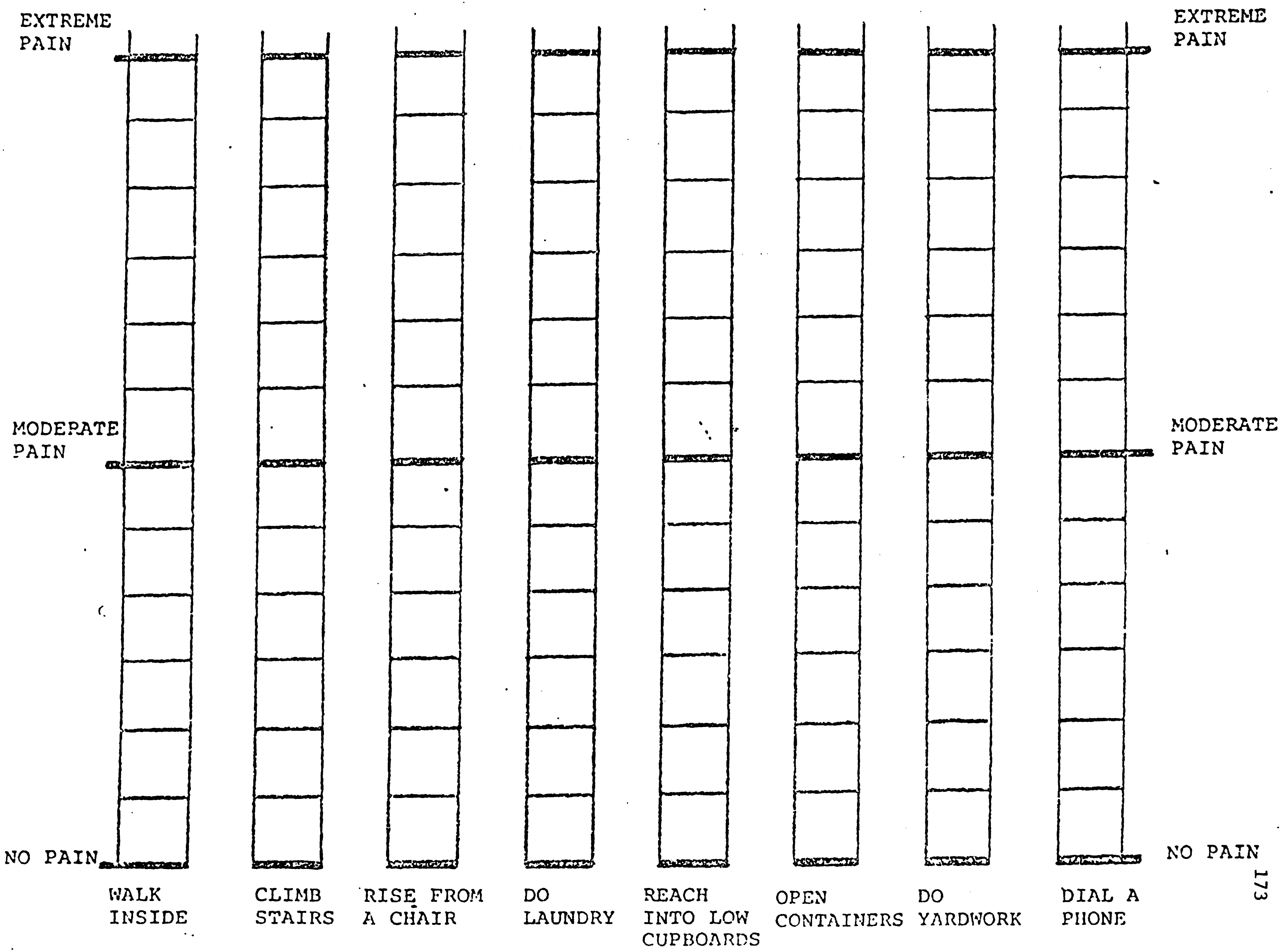
* * * * * * * * * * * * *

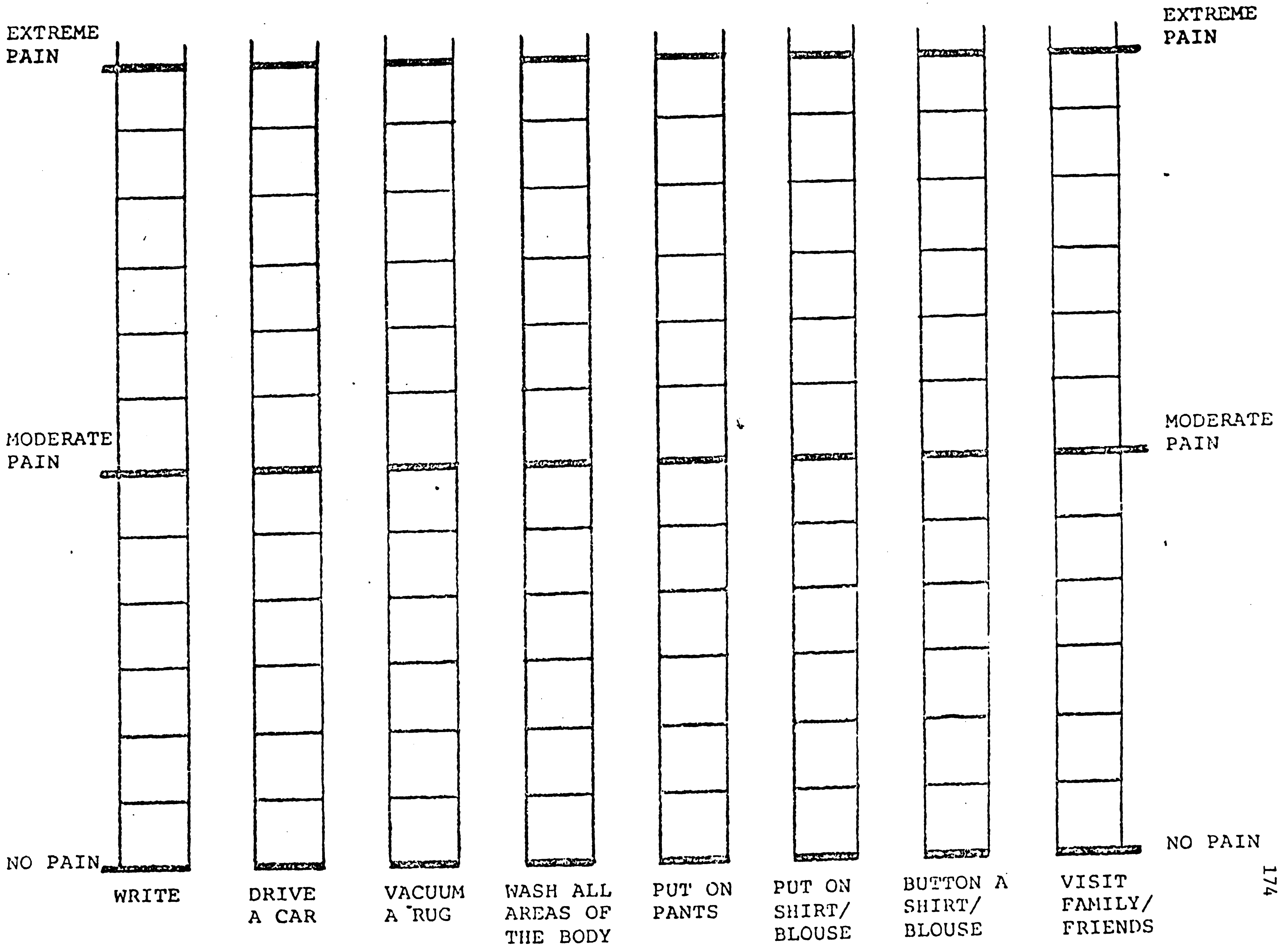
I'd like you to consider the amount of pain you experienced on the average during the past week for each of the activities listed. Consider the ladder above each activity where the bottom rung equals NO PAIN when performing an activity, the middle rung represents a MODERATE AMOUNT OF PAIN, and the top rung equals EXTREME PAIN when performing that activity during the past seven days.

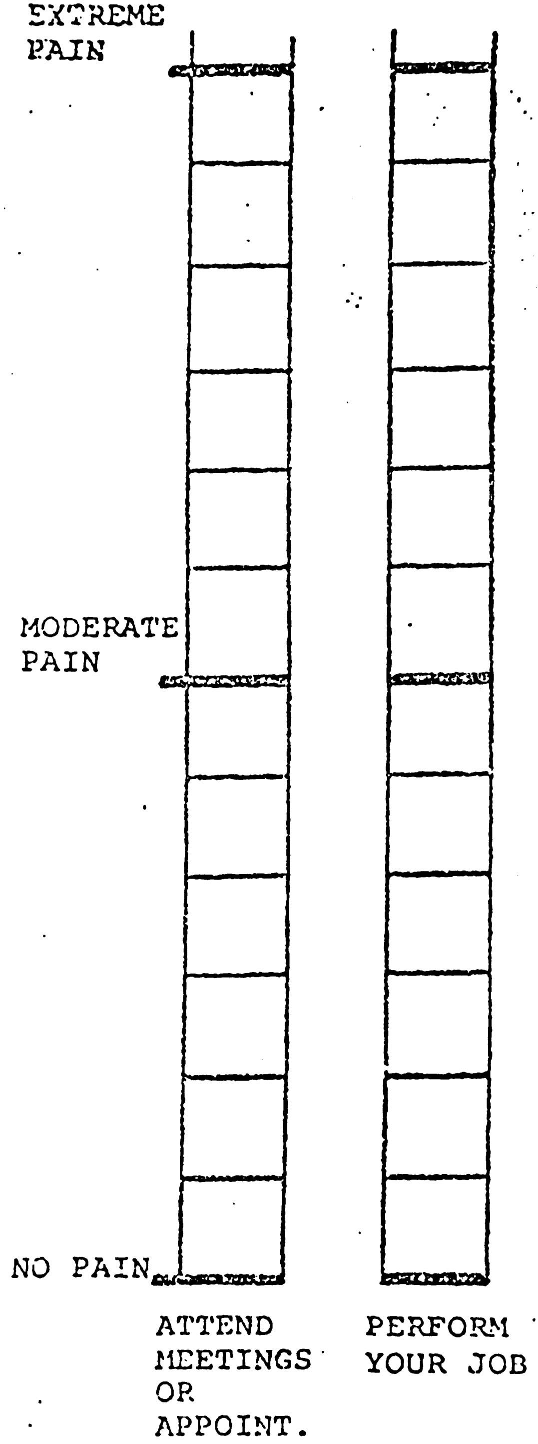
<u>The more pain you experienced, the higher up on the ladder you should go</u>.

Point to the rung of the ladder which best represents the amount of pain you experienced when doing each activity on the average last week. Feel free to change your mind as you go along.

(Give the questionnaire to the respondent and record her responses for each activity on the questionnaire.)


EXTREME PAIN
MODERATE PAIN
NO PAIN
EXTREME PAIN
MODERATE PAIN
NO PAIN
WALK INSIDE
CLIMB STAIRS
RISE FROM A CHAIR
DO LAUNDRY
REACH INTO LOW CUPBOARDS
OPEN CONTAINERS
DO YARDWORK
DIAL A PHONE


EXTREME PAIN
MODERATE PAIN
NO PAIN
WRITE
DRIVE A CAR
VACUUM A RUG
WASH ALL AREAS OF THE BODY
PUT ON PANTS
PUT ON SHIRT/ BLOUSE
BUTTON A SHIRT/ BLOUSE
VISIT FAMILY/ FRIENDS
EXTREME PAIN
MODERATE PAIN
NO PAIN



(PLEASE RETURN QUESTIONNAIRE TO INTERVIEWER)

Section IV

Difficulty

In this section of the interview, I am trying to measure the degree of difficulty you experienced in performing daily activities on the average during the past week. For each activity, I would like you to judge the degree of difficulty experienced when doing it on the average during the past seven days.

By difficulty, I mean how easy or hard it was to do the activity.

Do you have any questions before we start?

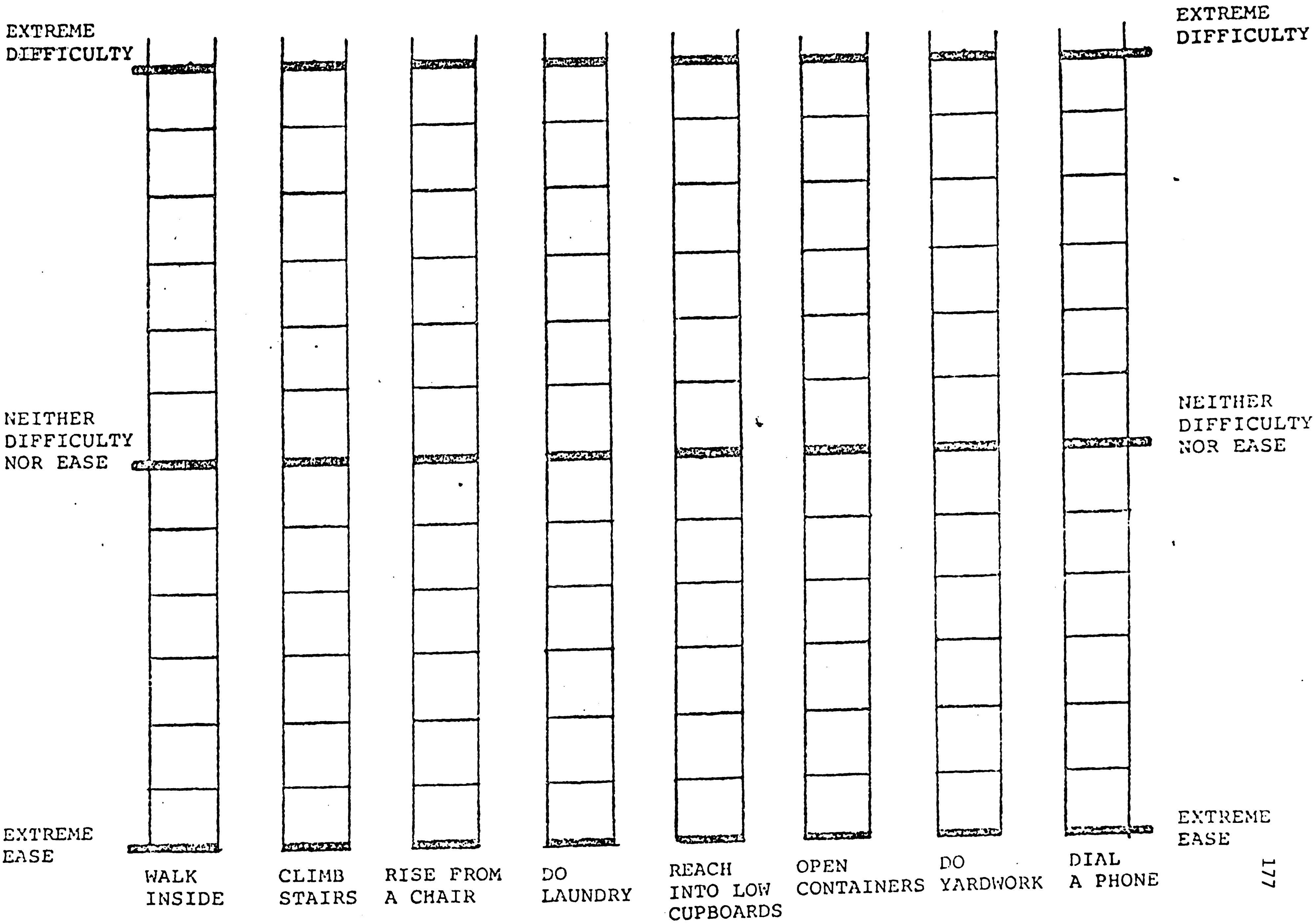
* * * * * * * * * * * * *

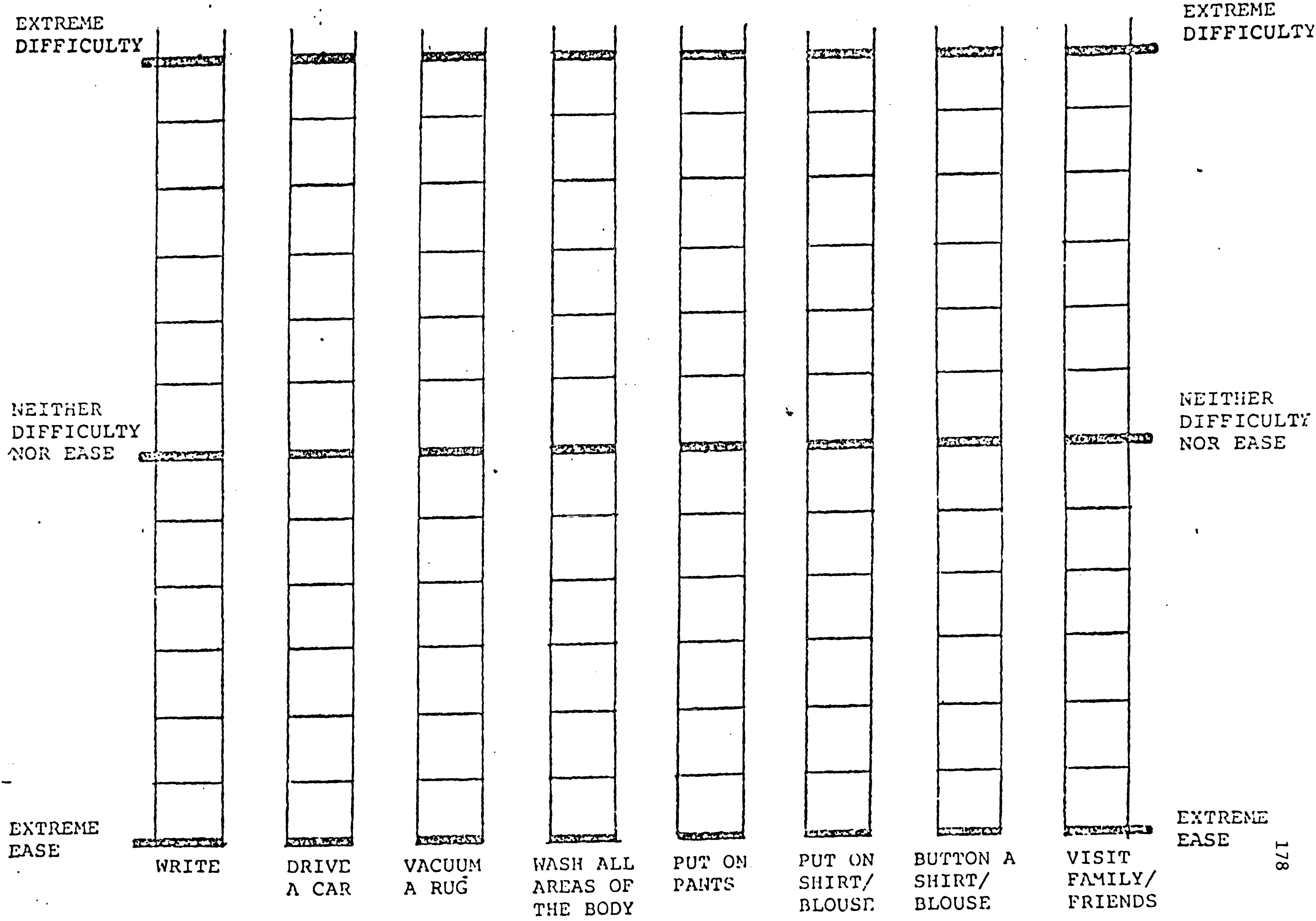
I'd like you to consider the difficulty you experienced on the average during the past week when doing each activity listed. Consider the ladder above each activity where the bottom rung equals EXTREME EASE in performing the activity, the middle rung represents NEITHER DIFFICULTY NOR EASE, and the top rung equals EXTREME DIFFICULTY in performing the activity.

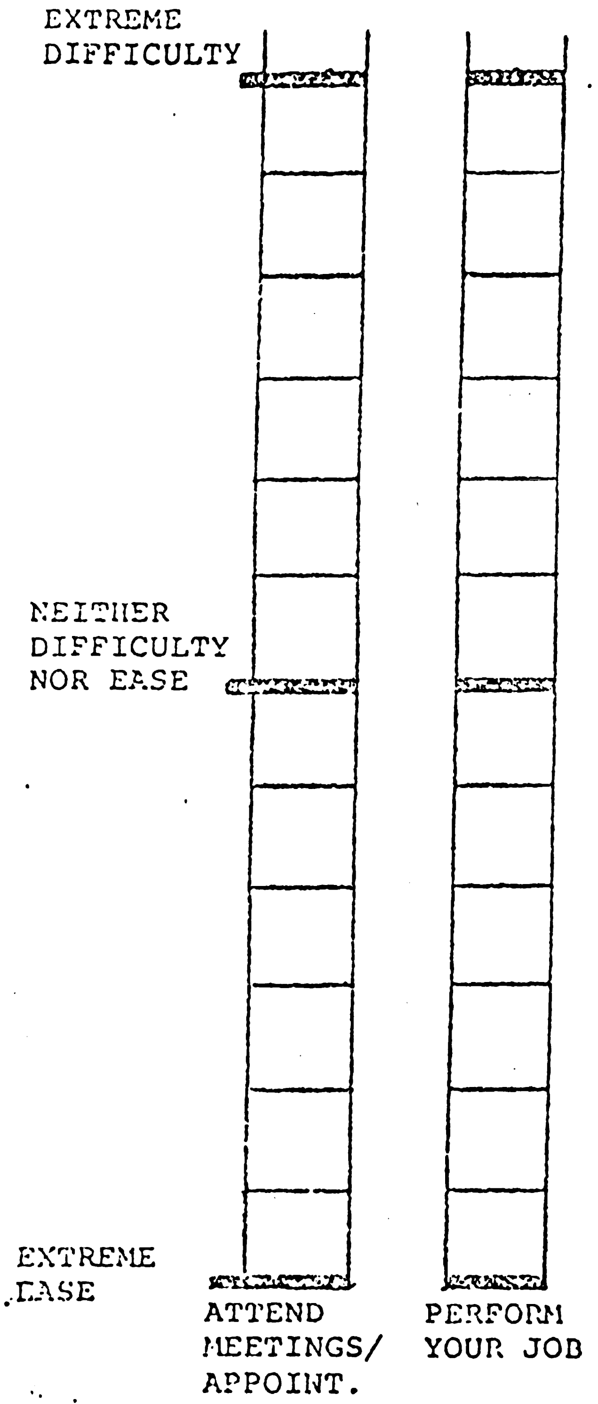
The more difficulty you experienced, the higher up the ladder you should go.

Point to the rung of the ladder which best represents the degree of ease or difficulty you experienced when performing each activity on the average during the past seven days. Feel free to change your mind as you go along.

(Give the questionnaire to the respondent and record her responses for each activity on the questionnaire.)


EXTREME DIFFICULTY
NEITHER DIFFICULTY NOR EASE
EXTREME EASE
WALK INSIDE
CLIMB STAIRS
RISE FROM A CHAIR
DO LAUNDRY
REACH INTO LOW CUPBOARDS
OPEN CONTAINERS
DO YARDWORK
DIAL A PHONE
EXTREME DIFFICULTY
NEITHER DIFFICULTY NOR EASE
EXTREME EASE


EXTREME DIFFICULTY
NEITHER DIFFICULTY NOR EASE
EXTREME EASE
WRITE
DRIVE A CAR
VACUUM A RUG
WASH ALL AREAS OF THE BODY
PUT ON PANTS
PUT ON SHIRT/ BLOUSE
BUTTON A SHIRT/ BLOUSE
VISIT FAMILY/ FRIENDS
EXTREME DIFFICULTY
NEITHER DIFFICULTY NOR EASE
EXTREME EASE



(PLEASE RETURN QUESTIONNAIRE TO INTERVIEWER)

Appendix V

Social Support Questionnaire

Code #______

Appendix V

Social Support Questionnaire*

Part I

The following questions seek to obtain information from you about whom you would rely upon for assistance in ten different situations.

Please indicate the appropriate response for each of the following questions.

1) When you are working around the house and find that you need something to finish the job (like a cup of sugar or some nails), what do you usually do about it?

_____Borrow from someone. (From whom?)

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )

OR

_____Make a quick trip to the store.

_____Other (Please specify: ____)

---

*Cohen, Judith B., & Lazarus, Richard S., University of California, Berkeley, 1977.

2) When someone has an emergency operation--like having their appendix taken out--they usually have to spend time at home in bed. If you had to stay in bed for several days, would any of the people you know be able to take care of you or would you probably pay someone to take care of you?

_____Know someone who would take care of me (Who?)

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )

OR

_____Would probably pay someone.

_____Other. (Please specify: ____________________________________)

_____Don't know.

3) If you have regular use of an automobile, please answer part (a). If you do not have regular use of an automobile, please answer part (b).

(a) What if your car was in the shop and you needed another car for the day, would you rent a car or ask someone you know to let you use their car?

_____Rent a car.

_____Borrow a car (If so, from whom would you borrow a car?)

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )

OR

_____Other (Please specify:______________________________________)

(b) What would you do if you needed a car for the day, would you rent a car or ask someone you know to let you use their car?

_____Rent a car.

_____Borrow a car. (If so, from whom would you borrow a car?)

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )

OR

_____Other. (Please specify:___________________________________)

4) What if you were laid up with a broken leg for three months or so, what would you do then?

_____Know someone who would take care of me. (Who?)

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )

OR

_____Would probably pay someone.

_____Other. (Please specify:___________________________________)

_____Don't know.

5) If you needed to borrow about $100, to whom would you go?

_____No one.

OR

_____Someone.

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )

6) Often people rely on the judgment of someone they know in making important decisions about their lives.

(a) Is there anyone whose opinion you consider seriously in making important decisions about you family?

Yes_____; No_____

If yes, whose opinion do you consider?

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )

(b) Is there anyone whose opinion you consider seriously in making important decisions about your job?

Yes_____; No_____

If Yes, whose opinion do you consider?

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )
	)	(			

7) When you have a problem, do you discuss it with any of the following people? (Check Yes for anyone you talk to.)

YES NO

( ) ( ) One close friend

( ) ( ) Two or more friends

( ) ( ) Priest, minister, rabbi, or other clergy

( ) ( ) Family or relatives

YES NO

( ) ( ) Psychiatrist or Psychologist

( ) ( ) Lawyer

( ) ( ) Counselor

( ) ( ) Your employer

( ) ( ) Other (Please specify:__________________________________)

8) Please read the following list of 5 activities. Check the one you have been engaged in most recently. Answer the questions concerning the activity.

(a) _____ Found a new job. Did you find out about the job from anyone you know?

No_____;Yes_____

If Yes, from whom did you find out about the job?

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )

____

(b) _____Bought an automobile. Did you find out about the automobile from anyone you know?

No_____; Yes_____

If Yes, from whom did you find out about the automobile?

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )

____

BEFORE YOU CHOOSE ONE OF THESE FIVE ACTIVITIES, PLEASE BE SURE TO LOOK AT THE NEXT PAGE FOR THE REMAINING NUMBERS.

(c) Moved to a new house. Did you find out about your new home from anyone you know?

No_____; Yes_____

If Yes, from whom did you find out about the house?

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )

____

(d) _____Joined an organization. Did you find out about the organization from anyone you know?

No_____; Yes_____

If Yes, from whom did you find out about the organization?

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )

____

(e) Found a lawyer? Did you find out about the lawyer from anyone you know?

No_____; Yes_____

If Yes, from whom did you find out about the lawyer?

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )

____

9) When you are feeling "low" and need someone to talk to about how you feel, to whom do you go?

_____No one

OR

_____Someone

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )

10) If the interior of your house or apartment was being painted and you needed a place to spend the night, what would you do?

_____Spend the night with someone. (With whom?)

NAME: FIRST & INITIAL (e.g., John S.)	RELATIVE	FRIEND	WORK ASSOCIATE	NEIGHBOR	OTHER
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )
____________________	( )	( )	( )	( )	( )

OR

_____Spend the night in a motel or hotel

_____Other (Please be specific:________________________________)

Instructions for Part Two

The following sheets ask questions about the relationships you have with others who are close to you. For each person listed, answer each of the five questions asked at the top, giving a rating from 1 (not at all) to 5 (extremely) for that person in the blank after his/her name. For example, the first question is, "How much does this person give you information, suggestions, and guidance that you find helpful?" You are first to answer this question about your spouse. If you feel your spouse gives you a moderate amount of such information, suggestions, etc., put "3" (moderately) in the blank space. If you feel he/she gives you none, put "1," if you feel he/she gives you very much, put "4," and so on. Pick any number from 1 to 5 to describe how much information, etc. you feel your spouse gives you. Then answer the other four questions about your spouse, giving a rating of 1 to 5 for each.

If you are unmarried but have a significant close relationship with someone, answer concerning that person for the question referring to spouse. If you do not have an intimate close relationship, leave that question blank.

Go down the list and answer each of the five questions given at the top for each person you have listed. Use first names only in referring to particular individuals.

PART II (Page 1 of 2)

DIRECTIONS Answer each question for each person listed below, using ratings from 1 to 5:
*(1 = Not at all; 2 = Slightly; 3 = Moderately; 4 = Very; 5 = Extremely)

	How much did this person give you information, suggestions, & guidance over the last month that you found helpful? (1-5)	How reliable is this person? (Is this person there when you need him/her?) (1-5)	How much does this person boost your spirits when you feel low? (1-5)	How much does this person make you feel he/she cares about you? (1-5)	How much do you feel you can confide in this person? (1-5)
I. YOUR SPOUSE					
II. FRIENDS: List your 3 closest friends (such as "John S.") and answer for each.					
1. . .					
2. . .					
3. . .					
III. WORK ASSOCIATES (Omit if you do not work)					
1. SUPERVISOR					
2. CO-WORKERS: List and answer for those co-workers with whom you have the most contact.					
. .					
. .					

PART II **DIRECTIONS** Answer each question for each person listed below, using ratings from 1 to 5:
*(1 = Not at all; 2 = Slightly; 3 = Moderately; 4 = Very; 5 = Extremely)

(Page 2 of 2)

	How much did this person give you information, suggestions, & guidance over the last month that you found helpful? (1-5)	How reliable is this person? (Is this person there when you need him/her?) (1-5)	How much does this person boost your spirits when you feel low? (1-5)	How much does this person make you feel you can confide in this person? (1-5)	How much do you feel you can confide in this person? (1-5)
IV. **CLOSEST RELATIVES** List relatives you feel closest to (e.g., Laura, sister) and answer for each.					
____________________ . .	____________	____________	____________	____________	____________
____________________ . .	____________	____________	____________	____________	____________
____________________ . .	____________	____________	____________	____________	____________
____________________ . .	____________	____________	____________	____________	____________
V. **NEIGHBORS** List those neighbors you feel close to and answer for each.					
____________________ . .	____________	____________	____________	____________	____________
____________________ . .	____________	____________	____________	____________	____________

Appendix VI

Bradburn Morale Scale

Code #_______

Appendix VI

Bradburn Morale Scale*

Please respond "Yes" or "No" to each of the following questions.

I am interested in the way you are feeling these days. During the past few weeks, did you ever feel. . .

		YES	NO
A.	Particularly excited or interested in something?	☐	☐
B.	Proud because someone complimented you on something you had done?	☐	☐
C.	Did you ever feel so restless that you couldn't sit long in a chair?	☐	☐
D.	Very lonely or remote from other people?	☐	☐
E.	Bored?	☐	☐
F.	Pleased about having accomplished something?	☐	☐
G.	On top of the world?	☐	☐
H.	Depressed or very unhappy?	☐	☐
I.	That things were going your way?	☐	☐
J.	Upset because someone criticized you?	☐	☐

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*Bradburn, N., & Caplovitz, O. *Reports on happiness*. Chicago: Aldine Publishing Company, 1965.

Appendix VII

Qualitative Data Questionnaire

Code #_______

Appendix VII

Qualitative Data Questionnaire

I have asked a series of specific questions. Now I would like to hear, in your words, the answers to the following questions.

1) How do you go about coping with your rheumatoid arthritis?

2) What does it mean to you to have rheumatoid arthritis?

Appendix VIII

<u>Consent to be a Research Subject</u>

Appendix VIII

Consent to be a Research Subject

Vickie Lambert, a doctoral candidate in Nursing Science at the University of California, San Francisco, is doing a study to learn more about how individuals with rheumatoid arthritis cope with their illness.

If I agree to participate, Vickie Lambert will interview me and have me answer questions on six different questionnaires. This will be done in Room ____ in the Clinic Building and will take approximately one hour of my time.

There will be no benefit to me. The study may produce information of use to nurses in the future.

I have talked with Vickie Lambert about this study and she has answered my questions. If I have any further questions I may reach her at 666-4771 or at 522-2087. If I have any comments about participating in this study, I should first talk with Vickie Lambert. If for some reason I don't wish to do this, I may contact the Committee on Human Research which is concerned with protection of volunteers in research projects. I may reach the committee between 8-5 P.M., Monday through Friday by calling (415) 666-1314.

As a result of answering the six questionnaires it is possible that I could become frustrated, fatigued, and/or concerned about having my usual clinic routine altered.

I may refuse to participate or may withdraw at any time without jeopardy to my treatment at this medical center.

I understand that my identification will not be revealed in any paper or publication of the results of this study.

I understand that Vickie Lambert will be looking in my medical record (chart).

______________________________	______________________________
Date	Subject's Name