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Psychological Factors in the Development of Ulcerative Colitis: Stress, Coping, and Ego Maturity

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PSYCHOLOGICAL FACTORS IN THE DEVELOPMENT OF ULCERATIVE COLITIS: STRESS, COPING, AND EGO MATURITY

by

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CHAPTER 1

INTRODUCTION

It is generally recognized today that all diseases are multifaceted in origin. "There has been an increasing interest in the role that psychological factors play, as one part of this factorial model in the precipitation and prevention of physical illness" (Cohen, 1979, p. 77). The notion that there is a continuous dynamic interplay between biological, psychological, and social factors in initiating, predisposing, and influencing the course of organic disease is not a novel concept. The relationship between the mind and body has fascinated scientists and clinicians for years; its roots are in the "psychosomatic medicine" approach (Zegans, 1982).

The reawakening interest in the contribution of psychological factors to physical disease can be, in part, attributed to changes and advances in the concept of psychosomatic medicine (Hill, 1979; Lipowski, 1977). Many of the early studies were formulated at a time when psychiatry was dominated by a psychoanalytical model (Sperling, 1960; Spitz, 1959). Thus, causes of these diseases were sought, for the most part, in conflictual, unconscious motivations. Specific personality constellations and hypotheses concerning the role of "intrapsychic conflict" were difficult to assess and verify (Weiner, 1977).

The emphasis in the last 10 years has shifted considerably with

the development of a broader perspective on human behavior and psychological functioning. An individual's "intrapsychic self" is no longer seen primarily as a by-product of psychological conflict (Weiner, 1977, p. 10). This major philosophical shift can be noted in the emergence of approaches such as "behavioral medicine" and "health psychology." These approaches highlight the interplay of cognitive-emotional-behavioral processes in both health and a majority of physical diseases (Cohen, 1979). Two variables presently under examination in explaining the disease process are stressful life events and personality factors such as coping resources and processes.

The field of stress has had a long history of inquiry within both the physiological and psychological sciences (see Mason, 1975 a, b for a complete review). The pioneering work of Selye (1976) has led to a voluminous amount of research; the resulting body of data leaves little doubt that a significant relationship exists between the experience of stress and a host of physical conditions (Dohrenwend & Dohrenwend, 1974; Rahe & Arthur, 1978; Wolff, 1950). Contemporary interest in stress phenomena, especially of a psychological nature, has led investigators to further examine the field in their research. Lazarus (1966) and Derogatis (1982) have noted the use of various models of stress that can be partitioned into three types: stimulus-oriented theories, response-oriented theories, and interactional theories.

A traditional approach in examining the relationship between stress and illness has been to regard stress as a stimulus or condition that produces turbulence in the individual. Stress as a force acting upon the individual can be seen historically in the assessment of

"life stress" or "environmental stress" utilized in both medical and psychiatric thought (Holmes & Rahe, 1967; Holmes & Masuda, 1974; Rahe, 1972; Rahe & Arthur, 1978; Rahe, Meyer, Smith, Kjaer, & Holmes, 1964). Other investigators appeared to emphasize stress as a response, that is, they concentrated on the nature of the turbulence itself (Appley & Trumbull, 1977). Evidence for the presence of stress is seen in the manner in which an individual responds to the danger of the stimulus or event in the environment, that is, the cognitive-emotional processes that are the hallmark of psychiatric disorders (Derogatis, 1982).

A variety of more recent research has attempted to view stress in a more complex manner than originally envisioned in both stimulus- and response-oriented models. These investigators view stress as a "generic term for the whole area of problems that include the stimuli producing stress reactions, the responses themselves and the various intervening processes" (Lazarus, 1966, p. 27). Thus, stress is seen as a relational concept describing adaptive interactions between the person and his environment (Holroyd & Lazarus, 1982; Lazarus, 1981). Consequently, proponents of this perspective are critical of global reductionistic viewpoints (i.e., both stimulus and response) in that these unelaborated models dismiss a large number of mediating characteristics of the individual that may intimately link the experience of stress and the development of illness (Cohen, 1979). These investigators suggest that in order to better predict the health consequences of stress, future investigations should be aimed at pertinent factors such as an individual's resources for dealing with life events and coping strategies utilized in the management of stress (Holroyd & Lazarus,

1982; Lazarus, 1981; Moos & Billings, 1982).

In view of the trend toward comprehensive patient care, a detailed examination of these psychological factors has theoretical and practical implications for both the medical and scientific communities. Their study would be an important advance in understanding the multiple factors which contribute to and influence the disease process. If one could gather meaningful data identifying and elucidating the relationship between these psychological factors (stress and coping) and illness, hopefully the research could give more definitive guidelines to both medical and psychological clinical practice. Added sensitivity on the part of physicians could be fostered regarding these factors and their implications in treatment and management strategies. Practitioners' early recognition of these factors and consideration in their therapeutic armamentarium would increase their ability to practice medicine in a scientific, holistic manner. Ultimately, psychologically informed service delivery would lead to the better provision of health care needs for medical patient populations.

This investigation will focus on a disorder that has received considerable attention in the psychosomatic literature. Gastrointestinal disorders represent a great opportunity for study in behavioral medicine as many cases of ulcerative colitis are believed to be precipitated or exacerbated by psychological stress (Whitehead & Bosmajian, 1982). The present study investigated the contributing role of psychological factors to both the onset and course of chronic illness. Specifically, the investigation was designed to examine quality and quantity of stressful life experience, ego maturity,

coping and psychological symptoms status in patients with ulcerative colitis.

CHAPTER II

REVIEW OF RELATED LITERATURE

The health consequences of stress have been a recent concern in both the lay and scientific communities (Holroyd et al., 1982). There is a growing conviction within the field of health psychology that the way an individual copes with stress is more influential in health and illness than the mere presence of stress (Cohen & Lazarus, 1979). Despite the growing belief that an individual's personal resources and coping repertoires affect his other adaptation to stress, little is known about how these factors play a mediating role between stressful life events and the development of illness (Cohen & Lazarus, 1979; Folkman & Lazarus, 1980; Moos & Billings, 1982).

The present review will first address the research examining the psychological factors (stress and personality) associated with ulcerative colitis. This will be followed by a critique of the existing literature. Lastly, an interactional perspective for studying this disorder will be offered.

Psychological Factors in Ulcerative Colitis

Ulcerative colitis, one of a group of illnesses referred to as Inflammatory Bowel Disease, is a chronic inflammatory digestive disease of the colon and rectum (Whitehead & Bosmajian, 1982). This disease emerges as one of the most important medical problems of our time; its incidence is increasing worldwide with approximately 1 1/2 million

people afflicted in the United States (Kirsner & Shorter, 1982; Weiner, 1977). Despite conflicting results of epidemiological reports, certain trends in the disease are noted. For instance, this disease seems especially prevalent in educated, white Jewish individuals residing in urban areas of highly developed countries (Kirsner, 1978; McKegney, Gordon, & Levine, 1970; Mendleloff, Monk, Siegel, & Lilienfeld, 1970; Monk, Mendeloff, Siegel, & Lilienfeld, 1967; Weiner, 1977).

Inflammatory Bowel Disease patients, despite periods of remission and variability in the course of illness, experience a variety of symptoms with clinical characteristics that interfere in practical ways of living. Although symptoms vary depending on location, extent, and acuteness of the inflammatory lesion, individuals with these diseases tend to suffer from diarrhea, abdominal pain, rectal bleeding, anorexia, weakness, weight loss and fever. In addition to these troublesome symptoms are a host of associated systemic complications. The inflammatory process may spread to involve the joints, liver, spine, skin, eyes and mouth. Consequently, these manifestations may lead to long periods of disability with intermittent disruption of family, school, and business responsibilities, frequent hospitalizations, and potential surgical procedures to remove the diseased tissue or organ (Kirsner, 1971, 1978; Olbrisch & Ziegler, 1982; Weiner, 1977).

The etiology and pathogenesis of Inflammatory Bowel Disease remains obscure despite voluminous publications on both psychological and biological processes (i.e., genetic, viral, bacterial, and immunological). The reader is referred to Kirsner and Shorter (1982) and Kirsner (1978) for a review of the physiolgical theories of

pathogenesis. Psychological factors have long been implicated in both the development and course of Inflammatory Bowel Disease--its recognition dating back to Murray's (1930) original observations that emotional disturbance was related to the onset of symptoms in ulcerative colitis. Subsequently, numerous reports documented the influence of the psyche (emotional stimuli) upon the gastrointestinal tract (Engel, 1962). These formulations elucidated the role that emotional stress can play in creating pathologic changes in the colon leading to clinical manifestations of Inflammatory Bowel Disease. [For a review of the neurophysiology of stress reactions and somatic process in the colon, the reader is referred to Engel (1954, a,b), Grace, Wolf and Wolf (1949, 1951) and Wolf and Wolf (1943).]

The clinical impression of an association between psychological factors and Inflammatory Bowel Disease has been the subject of extensive inquiry since Murray's (1930) pioneering study which suggested psychogenic factors in the etiology of ulcerative colitis. Major reviews of the voluminous data available point to the widespread concensus that psychological processes are a major influence in the disease (Engel, 1973; Weiner, 1977). The two main categories of events that surround the onset of the disease have been identified: stressful life events and specific personality constellations. What has emerged from many studies is a picture of Inflammatory Bowel Disease patients as "people who may differ from each other in degree, but who demonstrate a spectrum of personal sensitivities and vulnerabilities brought to the fore in certain life settings or in the face of certain experiences" (Weiner, 1977, p. 516).

Numerous early studies have attested to the occurrence of life stress before the onset of ulcerative colitis (Engel, 1955; Fullerton, Killar, & Caldwell, 1962; Groen, 1947; Lindemann, 1945, 1950; Schmale, 1958). Attempts to assess the frequency with which meaningful life experiences occurred have resulted in widely divergent figures, ranging from 2% to 97% (Feldman, Canter, Soll, & Bachrach, 1967; McKegney et al., 1970; Sloan, Bargen, & Gage, 1950). The variable nature of life crises preceding the onset of ulcerative colitis can be seen in studies that cite factors such as school, work, domestic stress, marriage, bereavement, leaving home, pregnancy, death, and childbirth as precipiants influential in disease onset (Hislop, 1974). The validity and reliability of many of these observations have been questioned by recent investigators who point to the necessity of controlled systematic studies that assess both quantity and quality of environmental stressors (Fava & Pavan, 1976, 1977; Mendeloff et al., 1970; Paull & Hislop, 1974; Schmitt, 1970).

A number of researchers have attempted to systematically study both the quantity and quality of stressful life experiences. Mendeloff and his colleagues (Mendeloff et al., 1970) composed a "life stress score" based on sociocultural factors thought to represent significant life stressors. Comparisons were made on the basis of an interview with patients demonstrating various inflammatory bowel difficulties (102 inflammatory bowel syndrome patients, 158 ulcerative colitis patients, 69 regional enteritis patients) and a control group assumed to represent the general population. The authors found no evidence for the incidence of quantity and quality of specific stressors preceding the

onset of ulcerative colitis; in fact, ulcerative colitis patients were highly similar to the general population. Although this study has been lauded in its attempt to put on a firm basis ideas about etiology that have heretofore rested on uncontrolled clinical impression, the validity and reliability of their stress index has been questioned as well as the inclusion of particular stresses (i.e., socioeconomic mobility, person living alone) (Weiner, 1977). Fava and Pavan (1976/1977) examined stressful life events preceding disease onset in a series of 60 patients with ulcerative colitis, inflammatory bowel syndrome (intestinal symptoms without existence of organic pathology) and appendicitis. Utilizing Paykel's Life Events Inventory (Paykel, Prusoff, & Hulenhuth, 1971), a modification of the original Holmes and Rahe scale (Holmes & Rahe, 1967), they confirmed Mendeloff et al.'s (1970) lack of finding of an association between the magnitude of life events and illness. A more interesting finding was noted utilizing a qualitative differentiation of life events: Inflammatory Bowel difficulties (ulcerative colitis and inflammatory bowel syndrome) were frequently preceded by events regarded as undesirable; that is, involving losses and exits from the patient's social sphere. That is similar to the findings of early investigators who emphasized that bereavements relating to love loss and separation play a major role as onset conditions (Grace & Wolf, 1951; Karush, Daniels, O'Connor, & Stern, 1968; Sperling, 1957). This was interpreted as confirming the earlier notion of the depressive features in ulcerative colitis (Engel, 1955; Hislop, 1974).

The two previous studies discussed have attempted to refine the

measurement of stress. When controls were added to the investigations, confirmation of earlier analytic notions were not conclusively forthcoming. In addition, even these more controlled studies exhibited difficulties that prohibit the drawing of firm conclusions regarding the role of stressful life experiences in the development of ulcerative colitis. The findings of Fava and Pavan (1976/1977) suggest that assessing the type or quality of stressful life experiences might be a fruitful area of exploration.

A variety of research has attempted to examine the relationship between personality characteristics and the development of ulcerative colitis. Traditional investigations in the field attempted to explain the particular vulnerabilities of these patients to significant life events by postulating the existence of unconscious historical psychological conflicts and personality defects (Grace et al., 1951; Groen, 1947; Lindemann, 1945, Sperling, 1957; Wittkower, 1956). Engel (1958) developed one of the most comprehensive theories linking psychological factors and ulcerative colitis based on both his own observations and the collection of reports written since Murray's (1930) original investigation. Common to most circumstances precipitating illness was the acute or gradually developing feeling on the part of the person that he or she could not cope; disease ensued in the context of "giving up" psychologically marked by an affect of helplessness and hopelessness. Examination of these patients pointed to a number of significant features: the existence of intrapsychic conflict, impaired ego adaptive capacities, a preponderance of pregenital character traits (especially compulsive and dependent features), and

immature object relationships characterized by a deep ambivalent symbiotic attachment to one or two key persons with limited capacity to establish warm and genuine relationships with others (Alexander, 1950; Dunbar, 1943; Engel & Schmale, 1967; Engel, 1955, 1958, 1961, 1968; Groen & VanderValk, 1956; Prugh, 1951; Sperling, 1946). Illness and concomittant feelings of helplessness and hopelessness would ensue when the relationship was threatened (in fact or fantasy) or lost through separation or death. (See Engel, 1973 for a complete review.)

Numerous clinical reports are consistent with formulations of these early psychoanalytic investigators (Castelnuovo-Tedesco, Schwertfeger & Hanowsky, 1970; Daniels, O'Connor, Karush, Moses, Flood, & Lepore, 1962; Finch & Hess, 1962; Grinker, 1953; Karush, Daniels, O'Connor, & Stern, 1965; Kollar, Fullerton, Dicenso, & Agler, 1964; Levitan, 1976-77, 1977-78; Mohr, Josselyn, Spurlock, & Barron, 1958; Schur, 1953). However, many of these studies have been faulted on methodological grounds; this can be seen in the emphasis on retrospective chart reviews, anecdotal accounts, and pooled impressions based on case studies as well as psychiatric interviews based on psychoanalytic techniques such as associative amamnesis. The lack of clearly defined systematic procedures prohibits sufficient comparison and replications (Weiner, 1977).

The relationship between personality structure and ulcerative colitis becomes more ambiguous when one examines the few available studies that utilized control groups and/or established psychological measures (Bellini & Tansella, 1976; Esler & Goulston, 1973; Feldman et al., 1967; Helzer, Wayne, Stillings, Chammas, Norland, & Alpes,

1982; McMahon, Schmitt, Patterson, & Rothman, 1973; West, 1970). Feldman and his colleagues (Feldman et al., 1967) found no significant excess of obsessional personality traits or overdependency in 34 ulcerative colitis patients compared to two comparison groups: patients with gastrointestinal problems other than regional enteritis and large-intestinal disease and a general population group. This study merits consideration as it exemplifies many of the methodological and conceptual problems in this field of research. Despite laudable attempts to include comparison groups and to quantify normality, this study has been faulted on a number of grounds. Quantification was based on value judgments about inferences made from interview data: nowhere were criteria for the establishment of character diagnoses set down nor were the questionnaires and their reliability and validity established. In addition, the general population was divided into normal and abnormal according to arbitrary criteria (Weiner, 1977). Lastly, the examination of psychiatric disturbance in ulcerative colitis patients was performed on a group chosen because of special characteristics such as requiring psychiatric consultation; a number of patients had been attending psychotherapy for several months duration.

An examination of the experimental studies employing psychological test procedures yields contradictory results regarding the role of personality factors in ulcerative colitis. West (1970), using the Minnesota Multiphasic Personality Inventory (MMPI), compared 56 patients with ulcerative colitis with 122 patients with other "psychosomatic diagnoses" and found those with ulcerative colitis were nore emotionally disturbed than other patients; a neurotic configuration was

found resembling that of general medical patients. In addition, there was no evidence in support of uniqueness of their personality traits. Helzer et al. (1982) examined 50 consecutive patients with ulcerative colitis and a matched control sample of patients with chronic non-gastrointestinal medical illnesses, utilizing both Eysenck's personality and Paykel's life events inventories. They found no greater frequency of diagnostic psychiatric disorder in ulcerative colitis patients. This finding was confirmed by Esler and Goulston (1973). Bellini and Tansella (1976) administered the Leyton Obsessional Inventory (LOI) to 30 ulcerative colitis patients and 30 ulcer patients and found only a weak association between so-called "anal obsessional traits" and ulcerative colitis.

A number of criticisms have been levied at the various investigations utilizing psychological assessment procedures (Engel, 1973; McMahon et al., 1983). These studies have been faulted for assuming that ulcerative colitis is a purely psychogenic disease caused by psychic disturbance. As a result, investigators are prone to look for these patients to demonstrate more rampant psychopathology. In addition, the psychological procedures utilized have not been sufficiently specific to detect personality features reported by clinicians to characterize ulcerative colitis patients. In an attempt to respond to these criticisms, McMahon et al. (1973) undertook a three-year study to examine personality differences in 23 patients with Inflammatory Bowel Disease (a mixed group) and their healthy siblings utilizing data from three sources: psychometric tests (MMPI, Profile of Mood States, Jerome Frank Symptom Rating Scale and Martin Jacobs Ego

Strength Scale). Psychological testing revealed differences between the two groups only on the MMPI. An elevation was noted on two of the three so-called "neurotic trait scales": Hypochondriasis and hysteria. Analysis of personality and defense ratings showed that the patients were more immature, dependent, conscientious, and conforming to the expectations of others; more denial, projection, reaction formation, and withdrawal were utilized as defenses to deal with conflict. The authors interpret the lack of findings on many of the test procedures to be a result of the conformity and denial evident in this patient population. The authors viewed the results of the ratings and interviews in the context of ego developmental psychology. Siblings of patients were seen as going through a normal identity crisis and emerging as independent, autonomous individuals while inflammatory bowel disease patients are seen as fixated at a stage of idealizing and complying with parental authority. Maintaining identity via parental approval and protection, these patients were viewed as attenuating the struggle for identity as a psychologically separate autonomous individual. Thus, the authors found evidence of the following features in these patients: (a) a dependent personality characterized by immature object relations, and (b) the use of lower level defenses that might be characteristic of individuals who may not have attained a high level of integrated ego functioning. In conclusion, the findings of this study support traditional clinical theory put forth by early psychoanalytic writers regarding individuals with ulcerative colitis.

Both clinicians and researchers have traditionally assumed a relationship between psychological factors and ulcerative colitis.

Despite the wealth of investigations in the field, controversy still exists regarding the subject. At this time, the only conclusion that can be drawn is that the realtionship is complex. The following section of the text will discuss the various conceptual and methodological problems existing in the literature that prohibit both a comparison of findings as well as a lucid understanding of the contributing role of psychological factors in ulcerative colitis.

Critique of the Literature

A review of the literature points to the general notion that psychological factors play a powerful role in the etiology of ulcerative colitis (Weiner, 1977). Despite the wealth of investigations, the research has not borne out these notions conclusively (Kirsner, 1978). Although many studies have revealed differences in these patients, the specific relationship between these factors and ulcerative colitis is unclear. There are a number of conceptual and methodological difficulties inherent in the existing literature that prohibit the drawing of firm conclusions at this time.

Many of the early studies in the field were conducted within a early framework of psychosomatic medicine that was dominated by psychoanalytic concepts of distinct psychosomatic diseases--a framework that has been criticized as outmoded (Hislop, 1974; Latimer, 1978; Whybrow & Ferrel, 1973). In addition, studies were faulted as being unreliable and unscientific, often utilizing a retrospective approach based on anecdotal evidence and pooled impressions of psychiatric interviews, case studies, and old hospital records. Few studied utilized a systematic approach that featured control groups and/or the use of

psychometric objective procedures; diagnostic procedures and concepts were not clearly defined (i.e., immaturity). In addition, studies often investigated psychological factors in patients already identified as having psychological problems (McKegney et al., 1970).

Another major difficulty found in the literature assessing the relationship between psychological factors in ulcerative colitis has been the simplistic view of stress. Stress has ofen been assessed quantitatively from the perspective of the observer via cumulative life stress scores without an application of its idiosyncratic nature; that is, the meaning of the event or experience to the patient. For example, it has been suggested that ulcerative colitis patients are not said to experience a greater number of stressful events but may be more sensitive to these events, especially those of a negative nature, than the average person (Fava and Pavan, 1977; Ruch, 1977; Schmitt, 1970; Schmale, 1970; Vinokur & Selzer, 1975). Latimer (1978) notes that much effort has been expended trying to answer poorly framed and probably unanswerable questions. Kirsner (1978) notes that the alleged failure of adaptive processes on the part of the individual under challenging circumstances is an attractive possibility in further elucidating the role of psychological factors in ulcerative colitis; yet this concept requires clarification and the suggested dynamics are vague. It has been suggested that circumstances which are involved in the setting of the stressful event may be highly relevant; interpretation of these factors by the patient may be pertinent with regard to his or her coping mechanisms (McKegney et al., 1970). While the importance of these factors has been recognized, no investigation has attempted to

examine both stress from the perspective of the ulcerative colitis patient and an analysis of the mechanisms utilized to cope with specific stressors.

Two additional issues in the literature merit consideration. One important problem has been the retrospective study of patients who have had Inflammatory Bowel Disease for years. This approach prohibits both clarification and comparison of the factors involved in the development and onset of Inflammatory Bowel Disease from the consequences and concomitants of living and adjusting to a chronic illness. This is a potentially challenging difficulty since the factors that would put one at high risk are presently unknown. Discriminating the antecedent from consequential factors, a formidable task, might best be accomplished through a longitudinal study of these patients beginning at the time of diagnosis (Latimer, 1978; Luborsky, Docherty & Penick, 1973; Weiner, 1977). A second problem weakening the results in the study of psychological factors and Inflammatory Bowel Disease is a lack of precision in the selection of the subject population and by problems in differential diagnosis. Numerous studies, especially before the 1960's, treated Inflammatory Bowel Disease as a homogeneous disease entity. The medical differentiation of ulcerative colitis and Crohn's disease as subvariants or differential forms of Inflammatory Bowel Disease began only in the last 20 years (Lockhart-Mummery & Morson, 1960; Meyer & Sleisenger, 1973). Consequently, many studies investigating the role of psychological factors to Inflammatory Bowel Disease must be regarded with skepticism because conclusions were based on a mixed patient population (Weiner, 1977; Zegans, 1982). Thus, emphasis

is being placed on describing the criteria used for patient selection, as well as ascertaining and verifying diagnoses and homogeneity of the sampling population.

In light of these problems, it is not surprising that more definitive statements cannot be made regarding the role that psychological factors play in ulcerative colitis (Latimer, 1978). A number of recommendations can be made in order to secure more reliable and valid conclusions. An investigation of the contributory role of psychological factors must assess both quantity and quality of stressful life events, as well as personality factors of the individual, such as their capacity to respond or cope with specific stressors. In addition, there is a need for systematic longitudinal studies with a group of clearly diagnosed ulcerative colitis patients that utilize standard psychological measurements with built-in appropriate control (normals) and comparison (other chronic disease) groups. This approach would permit the drawing of a number of inferences: a determination of whether actual differences exist in ulcerative colitis patients regarding these psychological factors; information about the relationship between ulcerative colitis and other chronic illness; and an elucidation of how these psychological processes change and/or affect adjustment over time in the course of the illness.

An Interactional Perspective

A new group of investigators view stress as a relational concept describing adaptive interactions between the individual and his environment; person and environment are viewed transactionally in terms

of a dynamic ongoing reciprocal process whereby each affects the other (Aldwin, Folkman, Schaefer, Coyne, & Lazarus, 1980; Cohen & Lazarus, 1979; Coyne & Lazarus, 1980; Folkman & Lazarus, 1980; Holroyd & Lazarus, 1982; Lazarus, 1981; Lazarus & Launier, 1978; Lazarus, Averill, & Upton, 1970). Proponents of this model recognize that multiple factors interact on a highly individualistic basis to determine responses to any given situation. This approach suggests focus on specific processes occurring in stressful encounters between the person and environment (Zegans, 1982). Cognitive processes of the person appear to play a central role in determining both the impact of stressful life events and the individual's struggle to control or master them (Lazarus et al., 1970; Lazarus & Launier, 1978). The present review will first address the novel work of these investigators whose concerted effort has helped to clarify the psychological determinants of the stress experience. The latter part of the section will focus on the ego as an arena in which to study the realm of personal resources.

The stress experience is seen as entailing two interacting processes: appraisal and coping (Cohen & Lazarus, 1979; Coyne et al., 1980; Folkman et al., 1980; Lazarus, 1966, 1981; Lazarus & Launier, 1978). Appraisal refers to the individual's assessment regarding the nature and meaning of the stressful event (Zegans, 1982). This evaluative process appears to occur in two interdependent subphases: primary and secondary appraisal. Primary appraisal is the process by which an individual recognizes and judges the life event in terms of what is at stake with regard to his well-being. For example, an event may be viewed as irrelevant, benign, or potentially harmful. Thus, the

individual in his evaluation of the possible jeopardy may ask, "Am I okay or in trouble?". Secondary appraisal refers to the individual's evaluation of the options and resources he may possess to tolerate and manage the potential or actual harm of the event. Thus, in appraising coping, the individual may ask, "What can I do about this?" (Cohen & Lazarus, 1979; Coyne, Aldwin, & Lazarus, 1981; Holroyd & Lazarus, 1982).

Coping, according to Lazarus and his collaborators, can be defined as "efforts, both action-oriented and intrapsychic, to manage (that is, master, tolerate, reduce, minimize) environmental and internal demands, and conflicts among them, which tax or exceed a person's resources" (Cohen & Lazarus, 1979, p. 219). This viewpoint does not make a distinction between the notion of "defense" and coping; people utilize both processes in combination when dealing with situations of threat (Lazarus & Laurnier, 1978). The model emphasizes a dynamic constellation of cognitive and behavioral efforts contributing to the coping process in a stressful encounter rather than focusing on static mediating variables such as personality type (Moos & Billings, 1982).

Investigators expounding the present model have attempted to classify various coping responses. They have identified four main modes of coping: information seeking, direct action, inhibition of action, and intrapsychic processes. Information seeking would be tantamount of finding out more about the problem presented in the novel situation. Direct action would be equivalent to doing something about the problem. For example, one might go on a diet if overweight. Inhibition of action would be the opposite of direct action. The mode of intrapsychic process would include what we typically think of as

defenses (i.e., denial, avoidance, etc.)(Cohen & Lazarus, 1979). Coping modes, in the present system, are seen as serving two main functions: the alteration of the ongoing person-environment relationship (problem-focused coping) and the regulation of stressful emotions (emotion-focused coping). Problem-focused coping refers to efforts to deal with tangible sources of stress either by changing environmental conditions or changing oneself to develop a more satisfying situation. Emotion-focused coping refers to efforts aimed at reducing emotional distress in order to maintain effective equilibrium (Coyne et al., 1981). Folkman and Lazarus (1980) maintain that these categories are not mutually exclusive and that most situations elicit both coping functions. For example, problem-focused coping can aid in dealing with the emotional arousal of a situation in that studying for an exam could reduce anxiety. On the other hand, denial of a physical symptom might lead to a delay in seeking necessary medical attention (Moos & Billings, 1982). Cohen and Lazarus (1979) advise that these two main functions of coping and their intricate relationship be kept in mind when viewing varied patterns of individual coping.

In summation, the interactional perspective is a dynamic one that conceptualizes coping as part of a changing process in an ongoing relationship between the person and environment that is dependent on many factors such as the demand of the situation and coping options available (Cohen & Lazarus, 1979). While coping efforts are made in response to cognitive appraisals of stress, appraisal and coping are reciprocal influences. Thus, at each stage of the person environment transaction, reciprocal feedback occurs engendering reappraisals and

new coping efforts in a continuous ongoing cycle (Folkman & Lazarus, 1980). An innovative approach has been developed that measure coping as a process in terms of what individuals are specifically doing and thinking while coping with a specific stressful encounter. It has been noted that investigating the alleged failure of adaptive processes in ulcerative colitis patients under challenging circumstances might be a meaningful way to clarify the role that psychological factors play in the development of illness. Lazarus' model provides an effective framework for examining this process through its focus on the specific coping strategies utilized by an individual to deal with specific stressors. A complete review of this measure, The Ways of Coping Checklist (Aldwin et al., 1980) can be found in the methodology chapter.

Personal resources: Ego maturity. Personal resources can be seen as a complex set of stable personality, attitudinal, and cognitive characteristics that provide psychological context for coping (Moos & Billings, 1982). Consequently, while coping refers to a variety of cognitive and behavioral strategies that control the actual or anticipated demand placed upon an individual, resources refer to what is available in developing specific coping repertoires. The previous section elucidated the closely allied processes of cognitive appraisal and the generation of problem and emotion-focused coping responses. Both of these processes can be influenced by personal resources which, in turn, can be affected by the outcome of these processes (Moos & Billings, 1982).

An area of personal resource that has been considered important is the "ego." The study of ego processes has had a long history of

concentrated formulation and measurement; its efforts have been rooted in the psychoanalytic approach (Haan, 1982). The variations within this school of thought have led to inconsistent usage of term within various fields of study (Freud, 1961; Hartmann, 1958; Loevinger, 1979; Spitz, 1959). Loevinger and her colleagues (Loevinger, 1976/1979; Loevinger, Wessler, & Redmore, 1978) have developed a conceptualization of ego development which synthesizes the reasoning of a number of personality theorists (i.e., Sullivan, Kohlberg, Erikson, & Piaget).

These authors view personality as a holistic framework; the ego is the aspect concerned with impulse control, character development, interpersonal relations, and cognitive preoccupations (Loevinger et al., 1978, p. 3). The essence of the ego is seen as striving to master, integrate, and make sense of experience (Loevinger, 1969, p. 85). Consequently, the ego can be seen as a way an individual integrates his or her experience or his or her overall framework of meaning (Loevinger, 1976). The innovative appraoch takes into account the individual's integrative processes and overall frame of reference by making two assumptions: that each person has a customary orientation to himself and the world and that there is a continuum of ego development along which these frames of reference can be organized (Hauser, 1976).

This framework of meaning can be seen in the process through which an individual's experiences are integrated into a whole, a sequence of steps along an abstract continuum conceptualized according to its hierarchical organization of complexity. Loevinger and her colleagues have postulated a series of stages of ego development

specifically derived from this sequence of steps along this continuum (Loevinger et al., 1978; Loevinger, 1976). They have constructed both a complex text and scoring system derived from their conceptualization of ego development. The design and conceptual derivation of the Sentence Completion Test (SCT) make it amendable to systematic, empirical investigation. The reader is referred to the methodology chapter for a closer look at the various postulated stages of ego development as well as a more complete elaboration of this instrument.

In summation, ego maturity may be viewed as an important personal resource as well as one factor that might enter into the initial appraisal and coping process outlined previously by Lazarus. The present investigator views the examination of the individual's role in the stress response via both coping mechanisms and personal resources as a meaningful way to elucidate the complex relationship between psychological factors and the development of ulcerative colitis.

Hypotheses

The present study was designed to investigate the contributing role of psychological factors to the onset of chronic illness. The investigation was specifically designed to examine the quantity and quality of stressful life experiences, ego maturity, coping style, and psychological symptom status in patients with newly diagnosed ulcerative colitis.

The existing literature points to the long association between psychological factors and the onset of ulcerative colitis. Investigations noted an emerging picture of these individuals as demonstrating

a spectrum of personal vulnerabilities that were brought to the fore in certain life settings and experiences. A number of significant features have been postulated regarding these patients. It has been stated that they exhibit a preponderance of pregenital character traits (especially dependent and compulsive features, immature object relationships, and impaired ego and adaptive capacities). Reviewers noted that these particular vulnerabilities manifested themselves in life events most often related to depressing events such as love loss, separations, and bereavements.

A number of difficulties in the literature have prohibited further understanding of how these psychological factors relate to the development of ulcerative colitis. Firstly, few studies utilized a systematic approach that featured control groups and psychometric objective procedures on patients with a clearly defined diagnosis. The results of studies that did attempt this often resulted in ambiguous findings. In addition, while the alleged failure of adaptive processes on the part of the individual under challenging circumstances is viewed as an attractive possibility in elucidating the role of psychological factors in ulcerative colitis, its concepts and dynamics are vague. No investigation has attempted to examine stress from the perspective of the patient (i.e., the personal meaning or interpretation of the event) along with an analysis of the mechanisms utilized to cope with specific stressors.

The present study attempted to address these previous limitations by conducting a systematic study of recently diagnosed patients with ulcerative colitis utilizing standard psychological measures along

with both comparison (arthritis, long-term ulcerative colitis) and control (healthy siblings) groups. In addition, the investigation focused on analyzing the specific coping strategies employed to deal with specific stressors. Based on both the existing literature and limitations in the field of study, four specific hypotheses were generated for confirmation by the present investigator. It was expected that ulcerative colitis patients would differ from other individuals in the following ways:

(a) Quality, but not quantity of stressful life experiences in that they will evidence both more undesirable and exit events from their social sphere;

(b) Psychological symptom status in that they will experience higher levels of psychological distress indicating the use of less effective coping stragegies;

(c) Coping strategies in that they will utilize less problem-focused and growth-oriented coping strategies and more wishful thinking, avoidance, and seeking of help or emotional support;

(d) Ego maturity in that they will have attained a lower level of ego development.

CHAPTER 3

METHOD

Subjects

The primary sample consisted of 20 Ulcerative Colitis patients diagnosed on the basis of clinical course of the disease, sigmoidoscopic and radiological examinations as well as biopsies when available. Three comparison groups were utilized in the present study: (1) 18 patients evidencing another chronic medical illness (Arthritis): (2) 20 Ulcerative Colitis patients with an established disease process for a period of five to ten years; and (3) a group of 18 siblings of Ulcerative Colitis patients who displayed no evidence of a chronic medical disorder. Medical patients in each group of the study were seen as outpatients in private practice groups, either in the Chicago or New York City area.

All medical patients in the study were selected on the basis of clearly established diagnoses in an individual at least 18 years of age. In addition, both the primary Ulcerative Colitis and Arthritis patients constituted consecutive case admissions with a newly acquired disorder; diagnosis of condition occurred within the previous year. The remaining Ulcerative Colitis patients evidenced a well-established disease process, diagnosis of condition having occurred five to ten years previously.

The demographic characteristics of the sample were distributed

equivalently across most groups with a greater variation in the Arthritis patients. Differences were noted on a number of demographic characteristics. All of the participants in both the Ulcerative Colitis groups and in the sibling group were Caucasian. The Arthritis patients represented a greater mixture of racial backgrounds with only one-half being Caucasian. The other demographic differences in the Arthritis group were noted in an average age of 10 years more than the other groups as well as a greater percentage of individuals (35%) in the lower socioeconomic strata. In addition, this group represented a wider range of religious affiliations than the other groups and included the lowest percentage of individuals of the Jewish faith. There was a return rate of 71% for the individuals who were contacted for participation in the study. The individual return rate for the groups can be seen in Table 1. The age range of the sample was 18 to 75, with a median age of 33. There was a 2 to 1 majority of women in the sample. Approximately one-half of the people were married, and 70% were employed at the middle or upper range with regard to socioeconomic status. Approximately 90% of the sample received a high school education; at least one-half held a college or graduate degree. There was a preponderance of individuals of the Jewish and Catholic faiths.

With respect to patient status, the average duration of illness for the Arthritis and Ulcerative Colitis patients who had recently been diagnosed was 7 months. The Ulcerative Colitis patients with a well-established disease were ill for an average of 8 years. Approximately one-half of the sample were judged by the physicians as responding well to treatment, and 75% were seen as exhibiting disorders that were in

Table 1

Questionnaire Return Rate for the Sample

	Group			
	Short-Term UC	Long-Term UC	Siblings	Short-Term Arthritis
Contact	27	29	25	26
Consent	25	26	24	23
Return	20	20	18	18
Percentage	74	70	72	69

remission or mild. Nearly 75% of the patients were on medication, and 25% exhibited other chronic disorders. More specific information regarding the sample is presented in Table 2.

Measures

Materials mailed in each packet consisted of 6 questionnaires, prefaced by an instruction sheet to the participants which included a general statement of the purpose of the questionnaires. The first questionnaire requested demographic information (general, medical and family). Also included was the Marlowe Crowne Social Desirability Scale (M-C SDS), referred to as Personal Reaction Inventory in the present study (Crowne & Marlowe, 1960). The experimental questionnaires included in the packet were the Life Events Inventory (Paykel et al., 1971), Sentence Completion Test (SCT) (Loevinger et al., 1978), SCL-90-R (Derogatis, 1975), and the Ways of Coping Checklist (Aldwin et al., 1980). A sample of the materials can be seen in Appendix A.

Ways of Coping Checklist. The Ways of Coping is a 68-item self-report checklist designed to assess a broad range of cognitive and behavioral coping strategies that an individual might use to deal with a specific stressful episode (Aldwin et al., 1980). The theoretical rationale for the process measure was presented earlier in this paper (Lazarus, 1966; Folkman et al., 1980; Lazarus et al., 1978).

The coping questionnaire inquires about a recent stressful situation (within one month) and requests a brief description stating who was involved, where it took place, and what happened. Subsequently, the individual indicates those strategies utilized by responding to each item with "yes" or "no." At the conclusion of the checklist are

Table 2

Demographic Characteristics of the Sample

Characteristic	Short-Term UC[a] (N=20)	Short-Term Arthritis (N=18)	Long-Term UC (N=20)	Siblings (N=18)	Total (N=76)
Current Life Status					
Sex					
Male	30%	22%	45%	28%	32%
Female	70%	78%	55%	72%	68%
Marital Status					
Single	40%	17%	25%	33%	30%
Married	50%	61%	65%	61%	59%
Separated/ Divorced	10%	22%	5%	6%	10%
Widowed	--	--	5%	--	1%
Employment Status					
Currently Employed	65%	67%	80%	61%	68%
Currently Unemployed	35%	33%	20%	39%	32%
Religion					
Catholic	25%	53%	20%	33%	32%
Jewish	65%	6%	70%	67%	53%
Protestant	5%	12%	5%	--	5%
None/Other	5%	29%	5%	--	9%
Age					
Mean	33.8	43.9	34.95	32.94	36.29
Standard Deviation	14.03	12.66	11.99	11.50	13.09
Range	57	45	50	50	57
Median	29.5	42.5	30	30.5	33.25
Mode	29	35	29	24	29

Table 2 (continued)

Characteristic	Short-Term UC[a] (N=20)	Short-Term Arthritis (N=18)	Long-Term UC (N=20)	Siblings (N=18)	Total (N=76)
Sociocultural Status					
Social Class					
Upper	26%	12%	37%	50%	31%
Upper Middle	21%	29%	37%	19%	27%
Middle	42%	23%	10%	19%	24%
Lower Middle	5%	18%	5%	12%	10%
Lower	5%	18%	10%	--	8%
Education					
Some High School or Less	10%	17%	5%	6%	9%
Completed High School	15%	33%	15%	22%	21%
Some College	30%	11%	5%	22%	17%
Completed College	20%	22%	35%	17%	24%
Completed Graduate School	25%	17%	40%	33%	29%
Race					
White	100%	47%	100%	100%	88%
Black	--	35%	--	--	8%
Asian	--	12%	--	--	3%
Hispanic	--	6%	--	--	1%

Table 2 (continued)

Characteristic	Short-Term UC[a] (N=20)	Short-Term Arthritis (N=18)	Long-Term UC (N=20)	Siblings (N=18)	Total (N=76)
Patient Medical Status					
Length of Time Ill (months)					
Mean	6.8	6.5	92.5	-	36.24
Standard Deviation	4.38	4.32	23.28	-	43.41
Range	13	14	71	-	128
Median	5.5	7.5	91.5	-	10.1
Mode	1	1	99	-	1
Symptom Time Before Diagnosed					
1 Month or Less	32%	41%	26%	-	33%
2-6 Months	47%	24%	16%	-	29%
6 Months-1 Year	5%	12%	32%	-	22%
Age at Diagnosis					
Mean	33.5	43.7	27.1	-	36.29
Standard Deviation	14.05	12.53	12.47	-	13.09
Range	58	45	51	-	57
Median	29.5	42.5	22.5	-	33.25
Mode	20	35	21	-	29
Medication					
Yes	76%	89%	67%	-	77%
No	23%	11%	33%	-	23%
Surgery					
Yes	10%	6%	-	-	5%
No	90%	94%	100%	-	95%
Other Chronic Illnesses					
Yes	15%	33%	35%	22%	26%
No	85%	67%	65%	78%	73%
Psychotherapy					
Yes	37%	-	55%	44%	36%
No	63%	100%	45%	56%	64%

Table 2 (continued)

Characteristic	Short-Term UC[a] (N=20)	Short-Term Arthritis (N=18)	Long-Term UC (N=20)	Siblings (N=18)	Total (N=76)
Dr. Rated Severity of Illness					
Remission/ Mild	85%	67%	75%	-	76%
Moderate	10%	27%	25%	-	20%
Severe	5%	6%	-	-	4%
Dr. Rated Response To Treatment					
Poor	5%	14%	5%	-	8%
Fair	37%	43%	50%	-	43%
Good	58%	43%	45%	-	49%
Pt. Rated Severity of Illness					
Remission/ Mild	22%	29%	20%	-	24%
Moderate	39%	47%	65%	-	60%
Severe	39%	24%	15%	-	26%
Pt. Rated Response To Treatment					
Poor	20%	17%	21%	-	19%
Fair	35%	55%	26%	-	39%
Good	45%	28%	53%	-	42%

NOTE: [a]UC stands for Ulcerative Colitis

[b]Total percentages based only on ilness group except for the question on psychotherapy .

four questions designed to elicit information about the appraisal with respect to whether it was an event where something could be done, which had to be accepted, where more information was needed, or where it was necessary to hold back.

Items in the measure are included from the domains of defensive coping (e.g., avoidance, intellectualization, information seeking, inhibition of action, direct action, palliation, and problem solving). These items are classified into two categories of coping: problem-focused and emotion-focused. (For procedure of scale development, see Folkman & Lazarus, 1980). These two categories comprise the primary scales of this measure. The individual's score would be the sum of "yes" responses to each scale. The two primary coping scales are as follows:

(a) Problem-Focused (P-scale) - This scale contains 24 items that describe cognitive problem-solving efforts and behavioral strategies for altering or managing the source of the problem by changing the environment, one's behavior, or both (e.g., made a plan of action and followed it, wanted to see what would happen).

(b) Emotion-Focused (E-scale) - This scale contains 40 items aimed at both cognitive and behavioral strategies for reducing emotional distress (e.g., tried to forget the whole thing, joked about it).

The internal consistency of these scales appears quite adequate. Alpha coefficients for the two scales, based on data of 100 45-64 year old nonsymptomatic community sample was .80 for the P-scale and .81

for the E-scale. There was 91% agreement among the raters regarding classification of items (Folkman et al., 1980).

A principal components factor analysis, using varimax rotation, was performed to obtain a more detailed description of coping strategies. Seven factors emerged suggesting the multidimensionality of the problem and emotion-focused coping. The seven subscales are as follows:

1. Problem-Focused (15 items)
2. Wishful Thinking (19 items)
3. Help Seeking/Avoidance (12 items)
4. Growth (7 items)
5. Minimizes Threat (8 items)
6. Emotional Support (13 items)
7. Blames Self (3 items)

Life Events Inventory. A brief version of the Scaling of Life Events Inventory was used to assess recent life events in the present investigation. This form, a 33-item version of the 61-item long form (Paykel et al., 1971) was introduced by Paykel and his associates as a reliable means of assessing significant life events found useful in studies of physical and psychiatric illness (Fava & Pavan, 1976/1977; Jacobs, Prusoff, & Paykel, 1974; Paykel, Myers, Dienett, Klerman, Lindethal, & Pepper, 1969; Paykel, Prusoff, & Meyers, 1975). Two events found to be important in psychosomatic investigations of Inflammatory Bowel Disease (increase in arguments with family members and death of a close friend) were added to the list of 33 events in the present investigation (Fava & Pavan, 1976/1977).

The scale devised by Paykel et al. (1969, 1971) represents a modification from the Holmes and Rahe (1967) scale. Revisions included substitution and rephrasing of items to make them more suitable for various socioeconomic groups and elimination of items (i.e., changes in sleeping habits) which might reflect psychiatric symptoms. In addition, items that contained diverse events were split into components: groups where two events required similar adjustment but differed in value or desirability. For example, work responsibilities were separated into promotion and demotion items. The present scale was constructed on the assumption of equal intervals rather than a ratio scale with any event fixed in value. The scaling of events was based on the concept of distress rather than adjustment to life change. Its allowance of a qualitative definition of life events contributes to making this a viable instrument to assess the study of stress. A statistical comparison of both scales yielded a correlation of .68 for identical items and a correlation of .48 for revised items. Thus, Paykel's approach constitutes a considerable modification, while retaining some resemblance in form, than the Holmes et al. (1967) approach.

Paykel et al. (1969, 1971) attempted to view the psychometric properties of the test by assessing consistency of scores across various sociodemographic groups (age, sex, SES, race, and religion). Correlations for the groups was high (.98). This demonstration of substantial agreement supports the use of this measure as a viable means of assessing significant life events in various populations. The authors do recommend the use of this scale with research groups

as opposed to individual subjects.

The measure records significant life events 1 year prior to the onset of illness. The patient is required to place a mark adjacent to each item occurring in this time period. The instrument is scored along both quantitative and qualitative dimensions. Quantitative evaluation is accomplished via three categorizations: desirability, exits/entrances, and area of activity. The present categories are not exhaustive in that items not adhering to specific classifications are omitted. A sample of the evaluative categories and their corresponding items appears in Appendix B. Frequencies are calculated in terms of the number of individuals experiencing at least one event in each specific category. A brief review of the evaluative dimensions are as follows:

a. Exits/Entrances--This categorization refers to events that involve changes in the immediate social field of the individual. Exits are events which involve departures such as divorce, death, and family member leaves home. Entrances involve additions to the person's life. This would include events such as marriage and birth of a child.

b. Desirability/Undesirability--This evaluative dimension corresponds to the social desirability of each event. Desirable events include such items as marriage and promotion. Undesirable events include such items as separation and financial problems.

c. Area of Activity--This dimension categorizes events into the area of social activity such as employment, family,

marital, health and legal.

Marlowe-Crowne Social Desirability Rating Scale (M-C SDS). The M-C SDS (Crowne & Marlowe, 1960) is a scale designed to assess a response set in the direction of social desirability. The scale was developed with a major objective of eliminating pathology-relevant item content observed in the Edwards Social Desirability Scale (Edwards, 1957). Thus, the items in the scale were drawn from a population of behaviors culturally sanctioned and approved with little probable occurrence and required to have minimal pathological implications despite response direction (Crowne & Marlowe, 1960).

The final form of the scale was developed subsequent to a series of ratings by judges (faculty and graduate students at a large university) on items measuring both adjustment and social desirability. The original 50 items were then subsequently administered to 76 introductory psychology students. An item analyses performed revealed 33 items to discriminate high and low scores on social desirability at the .05 level or better.

The M-C SDS consists of 33 items, 18 keyed true and 15 false. An individual's score is the sum of responses in the direction of social desirability. The scale has a mean score of 13.72 and a SD of 5.78. Validity and reliability for this measure is good. The internal consistency of the scale was assessed utilizing a group of 39 subjects (10 male, 29 female) ranging in age from 19-46, with a mean of 24.4 years. The obtained alpha coefficient was .89. The subsequent test-retest correlation obtained was .89. The correlation between the M-C SDS and Edwards SDS was .35, significant at the .01

level. In addition, a high correlation exists between the M-CSDS and the validity scales of the MMPI (Crowne & Marlowe, 1960).

SCL-90-R. The SCL-90-R is a new 90-items multidimensional, self-report inventory that measures psychopathology in psychiatric and medical patients (Derogatis, 1975b). The inventory purports to measure current psychological symptom status (Derogatis, 1977). The original version of the scale (Derogatis, Lipmann, & Covi, 1973) closely resembled the Hopkins Symptom Checklist (HSCL).

The SCL-90-R offers distinct advantages over the HSCL, despite the positive demonstrations concerning the reliability and validity of the latter instrument (Derogatis, 1977). The HSCL had not been developed for clinical use with individual patients. In addition, a substantial number of items did not seem to measure primary constructs. Lastly, while primary symptom dimensions were good, they seemed to provide insufficient coverage of additional important areas of symtomology (Derogatis, 1977). As a result of the limitations, certain items were changed and four new symptom dimensions were added as well as three global summary measures in development the SCL-90-R. These changes were assumed to increase both the accuracy and flexibility in overall assessment of a patient's psychopathological status.

The SCL-90-R asks the patient to respond to each of 90 items on a 5-point scale of distress, ranging from "not at all" to "extremely" (Derogatis, 1977). The scale can be scored and interpreted in terms of 9 primary symptom dimensions and 3 global indices of distress. The present investigation utilized the 3 global indices of distress in order to evaluate the effectiveness of coping with stress. The global

indices represent summary measures, derived from formulas, designed to communicate the current level or depth of a psychological disorder. The measures are as follows:

(1) Global Severity Index (GSI) - A score representing combined information on the number of symptoms and intensity of distress. This score is considered the single best indicator of the current depth of pathology.

(2) Positive Symptom Distress Index (PSDI) - A pure intensity measure adjusted for number of symptoms. This core functions, in part, as a measure of response style of the patient.

(3) Positive Symptom Total (PSI) - A score reflecting solely number of symptoms reported.

Currently, there are four formal published norms for the SCL-90-R; these are available on psychiatric outpatients, nonpatient normals, psychiatric inpatients, and adolescent psychiatric outpatients. Separate norms for men and women are available for the first three groups. Each norm represents the raw score distribution of the 9 symptom dimensions and 3 global indices in terms of area t scores.

The psychometric characteristics of the instrument have been established through a variety of investigations (Derogatis, 1977). The SCL-90-R has demonstrated high levels of both test-retest reliability with correlations ranging between .80 and .90 depending on the symptom dimension (Derogatis, Rickels, & Rock, 1976; Edwards, Yarvis, Muller, Zingale, & Wagmen, 1978). Validation of SCL-90-R has been a source of inquiry in many studies. Several recent investigations

have contrasted the SCL-90-R with other established multidimensional measures of psychopathology in order to determine the degree of equivalence between measures of similar constructs. High convergent validity was demonstrated between the SCL-90-R and the MMPI in a group of symptomatic volunteers (Derogatis et al., 1976). A similar finding was obtained using the Middlesex Hospital Questionnaire (MHQ) in a sample of nonpatient normals (Boleloucky & Horvath, 1974). Studies showing clinical sensitivity and criterion oriented validity are appearing more regularly in the literature (Derogatis, 1977). The SCL-90-R has proven sensitive to psychological distress in a wide variety of medical contexts such as sexual disorders (Derogatis, Meyer, & Gallant, 1977; Derogatis, Meyer, & King, 1981); chronic pain (Hendler, Derogatis, Avella, & Long, 1977); headaches (Harper & Stegler, 1978); and from cancer (Craig & Abeloff, 1974; Derogatis, Abeloff, & McBeth, 1976). In an attempt to examine the construct validity of the instrument, Derogatis and Cleary (1977a, b) confirmed the clinical-rational structure of the SCL-90-R utilizing a factor analytic method.

Sentence Completion Test. The Sentence Completion Test (SCT) is a measure designed to indicate where an individual falls on the spectrum of ego maturity. The construction of the test and complex scoring system has derived from Loevinger's conceptualization of ego development (Loevinger et al., 1978). The theoretical rationale for the SCT of ego development was discussed earlier in this paper. This projective technique (semi-structured) allows the individual to project his own frame of reference by responding to 36 incomplete sentence stems (e.g., Raising a family. . . .).

The measure categorizes subjects on a theoretical continuum of ego stages by assigning each response to one of 9 levels (including 3 transitional phases). The assumption is that each person has a core level of ego functioning. Scoring the measure involves assigning a stage level to each stem on a protocol. Subsequently, a total protocol rating is completed based on the frequency distribution of the item ratings.

Loevinger's model of ego development postulates 6 distinct stages and 3 transitional phases that follow an invariant hierarchical order and are defined independent of age. Each stage is characterized by a different but coherent character style and mode of thought (Loevinger, 1979). Developmental milestones are assessed in 4 major areas: impulse control (character development), interpersonal mode, conscious preoccupations, and cognitive style.

The first ego stages postulated by Loevinger, prosocial and symbiotic, are characterized by both an autistic and symbiotic interpersonal style as well as the major task of distinguishing the self from the world (others). As such, these two stages occurring in a preverbal mode cannot be measured by the SCT. A description of each stage follows with more extensive elaboration provided in the Results and Discussion sections of this paper.

Impulsive Stage (I-2). This stage is characterized by (a) an absence of impulsive control, (b) gross egocentricity, and (c) dependency. Conscious preoccupations are the satisfaction of bodily feelings, especially those of a

sexual and aggressive nature. The cognitive style can be characterized by both conceptual confusions and oversimplication; thus, the orientation is to the present and classification of things into categories of "good" and "bad."

Self-Protective (Δ) - This stage is characterized by a more self-sufficient yet opportunistic style. A major step is taken toward control of impulses through a preliminary understanding of rules as well as reward and punishment. Rules are obeyed for short-term advantage and self-interest. Thus, the interpersonal style is manipulative and exploitative serving a self-protective preoccupation. Preoccupations in this stage are fear of being caught, staying out of trouble, control and advantage in relationships.

(I Δ /3) - This first transitional phase connotes a move from self-protection toward conformity where obedience and compliance to social rules govern behavior.

Conformist (I-3) - This stage witnesses a major step from self-interest to an identification of personal welfare with that of a group. Thus, rules are obeyed for the purpose of group acceptance rather than fears of retaliation and short-term advantage. The typified need to belong to gives rise to conscious preoccupations of social acceptability and appearances. Thus, behavior is cooperative rather than competitive as in the previous phase. Absolute standards of right and wrong attest to the beginning

of an inner life and the notion of guilt, although morality is conventional in nature. The characteristic cognitive style of conceptual simplicity is seen in the use of cliches and stereotypes.

Conscientious-Conformist (I-3/4) - This transitional phase is characterized by the dawning of introspective abilities and acknowledgment that values such as right and wrong may be relative to context. Thus, while the individual is still group-oriented, the group no longer provides absolute guidelines. Differentiation of norms is further realized via a cognitive style characterized by multiplicity as the conscious preoccupations focus on alternatives, possibilities, adjustment, and reasons.

Conscientious (I-4) - This stage is characterized by both internalized standards of morality and conceptual complexity. The major elements of an adult conscience are seen in long-term self-evaluated goals and ideals, differentiated self-criticism and a sense of responsibilities for actions. Conscious thought focuses on obligations, individual differences and traits as well as achievement. Interpersonal relationships, which are more intensive and mutual, are evaluated in terms of feelings, emotions, and motives as opposed to action.

Individualistic (I-4/5) - This phase is characterized by an increasing differentiation of inner life and conflict from outward appearances. Greater acceptance and tolerance

of individual differences in both the self and others are crystallized. Relationships are seen as more intense and mutual.

Autonomous (I-5) - This stage is characterized by increased conceptual complexity and a preoccupation with self-fulfillment and integration. The individual strives to cope with conflicting needs within a multifaceted abstract view of the world. In contrast to the recognition and tolerance of individual differences, noted in the previous two stages, interpersonal relationships in this stage are characterized by a respect for autonomy and interdependence.

Integrated (I-6) - This stage, rarely attained, is similar to Maslow's conceptualization of self-actualization. It is characterized by a reconciliation of inner conflicts within the self and with the outer world. Relationships and individuality are cherished. The formidable task of identity consolidation is the major preoccupation in this stage.

Loevinger and her colleagues published an extensive scoring manual that includes strategy, training exercises, and scored examples (Loevinger et al., 1978). Different forms of the measure are available for age and sex (i.e., men, women, boys, girls). Test norms indicate that the modal ego stage for noncollege subjects is I-3, while the modal stage for college subjects is I-3/4, one-half step higher.

The rationale properties and complex scoring system of the SCT

has been carefully elaborated via a program of reliability and validity studies (Cox, 1973; Hauser, 1976; Hoppe, 1972; Loevinger, 1979). Evaluations of reliability of both the scoring system and the test itself indicate that the SCT is sufficiently standardized in terms of its form, administration, and scoring to permit use of the instrument in empirical research (Hauser, 1976; Loevinger et al., 1978). Redmore and Waldman (1975) examined the reliability properties of the test utilizing 3 indices: Test-retest, split half, and internal consistency. Test-retest reliability using item sum scores was .91. Although correlations were lower for total protocol ratings, most subjects did not significantly change stage levels over the two administrations. Split-half reliability correlations ranged between .85 and .90; internal consistency coefficients ranged between .80 and .89. On the basis of this and related studies, Loevinger (1979) concluded that the test is measuring a unitary dimension. With regard to scoring procedures, Loevinger et al. (1970) reported a median interrater correlation of .86 for individuals personally trained in the method. A comparison of personality-trained raters and those self-trained by the manual yielded a median interrater correlation of .86 on 100 total protocol ratings. Median complete agreement ranged between 61% and 71%. Ninety-four percent were in agreement within a half-stage. These results indicate that the manual is sufficiently clear, lending itself to maintenance of high agreement among various scorers, all of whom are using comparable procedures congruent with Loevinger's approach.

Loevinger (1979) and Hauser (1976) note that researchers have addressed validity issues from several angles. Existing results are

generally supportive of the theory and measure. It has been shown to be related to complex patterns of behavior as well as to global measures of maturity (Loevinger, 1979). Evidence for sequentiality is provided by studies showing cross-sectional gains with age, longitudinal studies, and gains following theory-relevant interventions (Loevinger et al., 1970; Redmore & Loevinger, 1979; Sullivan, 1975). The SCT has demonstrated substantive correlations with tests of related developmental concepts such as Kohlberg's test of moral maturity, Carkuff's Empathy Test, and Marcia's measure of Eriksonian identity. (Hopkins, 1977; Lambert, 1972; Sullivan, 1975; Zielinski, 1973).

Reviewers have noted that although evidence for construct validity is substantial, existing studies have not fully examined the complexity of issues at hand. More studies are needed to assess how ego development is related to both intelligence and verbal fluency (Blasi, 1972; Hauser, 1976; Hoppe, 1972).

Loevinger (1979) and Hauser (1976) note a number of conceptual and methodological difficulties in investigations that attempt to validate the SCT. One difficulty is the examination of the SCT with other measures in a correlational format. This method does not do justice to a sequential milestone developmental model that does not predict a linear relationship between stages and criterion variables; rather, relationships sometimes appear to be complex and curvilinear in nature. As a result, treating data as continuous (as in interval scales) would hinder the drawing of reliable and valid conclusions.

Loevinger's model of ego development is a theoretically broad concept. Thus, validation of the SCT by use of a single behavioral

criterion would not be sufficient. Loevinger (1979) claims that the measure should not be evaluated as a whole, but rather in each part of the scale. For example, evidence for preconformist stages may be seen in specific behaviors while postconformist stages may be associated more with attitudes and beliefs. As a result, Loevinger (1979) postulates more fruitful study of the model and measure to proceed along specific stages and longitudinal investigations. This would allow further elucidation of both organizational characteristics within specific stages as well as the movement and connection between stages.

The authors conclude that the overall model and measure have adequate validity for research purposes when administered and scored with sufficient care. They caution against its use as a clinical instrument without confirming data until a fuller understanding of the model is gained through further investigations along both conceptual and empirical lines (Hauser, 1976; Loevinger, 1979).

Procedure

The present investigation was conducted in two phases. During the initial phase, physicians reviewed their clinical case records in order to determine consecutive case admissions beginning in September, 1983. A list of patients conforming to the criteria stated previously was generated. Patients were then contacted by telephone to ascertain interest in participating in the study. During the phone conversation, the following points were discussed:

a. Purpose of the investigation - Subjects were told that the study was designed to specifically examine both the types of stresses experienced and the manner in which individuals

with various illnesses attempt to cope or deal with these stressors.

b. Requirements - Subjects were told that they would be required to fill out and return by mail a number of surveys sent to them. In addition, they were informed that an additional survey to be completed would be sent to them approximately 3 weeks subsequent to the initial packet of materials.

c. Rights to privacy - Subjects were informed that their confidentiality would be ensured through the use of code identification numbers in the analysis and reporting of results. In addition, they were ensured that information would not be released to anyone or become part of their personal record.

d. Voluntary participation - Subjects were told that their participation is voluntary and would not affect their medical treatment. In addition, they were informed of their freedom to discontinue participation in the study at any point.

e. Benefits - Subjects were informed of the personal benefits of participation; that is, they would be able to learn about the types of stress experienced by people with different illnesses as well as the ways people attempt to deal or cope with these stresses. In addition, patients were told that the study could benefit the medical and scientific community by enhancing our understanding of the relationship between these factors and illness.

f. Instructions - Subjects who agreed to participate were given

some basic guidelines on how to complete the surveys and encouraged to call with any questions or concerns.

g. Sibling contact - Subjects who agreed to participate were asked for permission to contact a sibling who does not evidence a chronic illness. Siblings of the consenting patients were contacted subsequently to ascertain interest in participating in the study utilizing the same telephone procedure utilized with patients.

During the second phase of the project, the physician rated each consenting patient on severity of demonstratable disease and initial response to treatment. A sample of the physician rating forms appears in Appendix C. Ratings were constructed without any knowledge of the data being collected nor the hypotheses of the study. Following the performed ratings, each patient was assigned a code identification number.

Subjects were mailed the appropriate materials and instructed to return the packet via mail within a two-week period. One week following the mailing of the materials, subjects were recontacted by telephone in order to ascertain confusion or concerns about the materials. Three weeks subsequent to the initial mailing, subjects were mailed a second Ways of Coping Questionnaire to be returned via mail. The data gathered consisted of standardized paper and pencil assessment instruments. From the point of data acquisition, only code identification numbers were utilized in the present investigation. The obtained data were examined to determine descriptive and comparative information on the following dimensions: quantity and quality of stressful life

events, ways of coping, current psychological symptom status (effectiveness of coping) and ego maturity. In addition, existing relationships among these dimensions were addressed as well as their relationship to both severity of illness and initial response to treatment.

CHAPTER IV

RESULTS

Stress and Psychological Distress

Both quantity and quality of stressful experiences were measured using the Life Events Inventory. Quantity of stress was assessed utilizing the total number of events an individual reported having experienced. The number of stressful situations recently encountered by the respondents ranged from 0 to 8 with a median of 2.8 events (M = 3.38, SD = 2.21). Quality of stress was assessed utilizing the total number of events reported in the following categories: (a) entrances; (b) exits; (c) desirables; (d) undesirables. Both quantity and quality of stress scores were then subjected to analyses of variance. None of the analyses obtained probability levels beyond the .05 level of significance, indicating comparability among the groups in both the number of stressful events and type of stress experienced. Results of these analyses can be seen in Table 3.

In addition, a number of analyses of variance were performed on the three SCL-90-R distress indices: overall level of psychological distress, number of symptoms reported and intensity of symptomatic report. None of the analyses, utilizing normalized t scores, yielded significant results, indicating equivalence among the groups in number of symptoms acknowledged, style of communicating symptomatic distress, and overall psychological distress level. Results of these analyses

Table 3

Analysis of Means and Variance for Quantity and Quality of Stress

	Group				
	Short-Term UC	Long-Term UC	Siblings	Short-Term Arthritis	
Quantity (Event #)	M 2.85 SD 2.033	M 3.25 SD 1.86	M 3.72 SD 2.49	M 3.78 SD 2.53	F(3,72) = .73
Entrances	M .20 SD .62	M .45 SD .76	M .11 SD .32	M .39 SD .85	F(3,72) =1.06
Exits	M .45 SD .76	M .25 SD .44	M .28 SD .46	M .33 SD .69	F(3,72) = .42
Desirable Events	M .10 SD .45	M .30 SD .57	M .11 SD .32	M .22 SD .73	F(3,72) = .61
Undesirable Events	M 1.00 SD 1.03	M .80 SD .89	M 1.22 SD 1.17	M 1.61 SD 1.58	F(3,72) =1.63

can be seen in Table 4.

As expected, ulcerative colitis patients did not differ from the other individuals in the amount of stress encountered in the environment. However, the results did not provide support for the notion that ulcerative colitis patients would differ in the quality of stressful events experienced. Specifically, it was expected that they would evidence more undesirable events and exits from their social sphere. In addition, the hypothesis that ulcerative colitis patients would experience greater psychological distress levels indicating less effective coping styles was not supported.

Style of Coping

An analysis of variance was utilized to assess the differences in coping style for the population as measured by the Ways of Coping Questionnaire. The analysis was performed on the initial sample of coping style as only 65% of the respondents returned both coping questionnaires. Coping style analyses were done utilizing the score (total number) that each individual attained on each of the following categories: (a) problem-focused coping; (b) emotion-focused coping; (c) Factor 1 (problem-focused); (d) Factor 2 (wishful thinking); (e) Factor 3 (mixed); (f) Factor 4 (growth); (g) Factor 5 (minimize threat); (h) Factor 6 (seek social support); (i) Factor 7 (blame self). The data revealed a significant difference in the use of minimization of threat, $F(3,70) = 4.29$, $p < .01$, and seeking of social support, $F(3,70) = 4.32$, $p < .01$. Although not significant, a strong trend was noted for differences in

Table 4

Analysis of Means and Variance for Psychological Symptom Distress Level

	Short-Term UC	Long-Term UC	Siblings	Short-Term Arthritis	
Global Severity Index (t Score)	M 57.05 SD 9.83	M 60.55 SD 9.84	M 60.22 SD 8.63	M 58.06 SD 10.40	F(3,71) = .59
Positive Symptom Total (t Score)	M 55.30 SD 10.68	M 57.15 SD 8.05	M 57.94 SD 8.52	M 55.06 SD 9.73	F(3,71) = .42
Positive Symptom Distress Index (t score)	M 58.00 SD 8.04	M 59.95 SD 6.82	M 59.17 SD 7.02	M 60.88 SD 10.20	F(3,71) = .43

the use of emotion-focused coping, $F(3,70) = 2.56$, $p < .10$, growth-oriented coping, $F(3,70) = 2.6$, $p < .10$, and self-blame, $F(3,70) = 2.22$, $p < .10$. Results can be seen in Table 5.

In order to further assess the exact nature of the differences in coping style noted above, a post-hoc comparison was done utilizing the Least Significant Difference Test. Results of the analysis are presented in Table 6. An examination of the means in Table 6 indicates that arthritis patients used greater minimization of threat ($M = 4.17$, $SD = 2.09$) whereas healthy siblings employed more seeking of social support in their style of coping ($M = 2.71$, $SD = .47$). In addition, strong trends were noted for healthy siblings and arthritis patients to utilize more emotion-focused ($M = 19.35$, $SD = 5.42$ and $M = 20.44$, $SD = 8.33$) and growth-oriented coping responses ($M = 3.06$, $SD = 2.19$ and $M = 3.22$, $SD = 1.87$). Finally, a trend was noted for siblings to employ more self-blame in their style of coping ($M = 2.71$, $SD = .47$). These results did not support the hypothesis that ulcerative colitis patients would utilize less problem-focused coping and more wishful thinking, avoidance, and seeking of emotional support. However, there was a trend noted for these patients to use less growth-oriented coping responses as stated in the hypothesis.

A chi-square analysis was performed to determine the comparability of the groups regarding the type of stressful situations encountered. For purpose of analysis, each coping episode was classified as to what type of stress it entailed. Five categories were used to describe the context of stress: health, family, work, other, and a combination of simultaneous stressors. Two judges independently rated these coping

Table 5

Analysis of Means and Variance for Coping Styles

	Short-Term UC	Long-Term UC	Siblings	Short-Term Arthritis	
Problem-Focused	M 12.37 SD 3.11	M 92.0 SD 5.13	M 10.94 SD 4.53	M 10.39 SD 4.71	F(3,70) = 1.70
Emotion-Focused	M 18.05 SD 5.27	M 14.90 SD 6.74	M 19.35 SD 5.42	M 20.44 SD 8.33	F(3,70) = 2.56[a]
Factor 1 (Problem-Focused)	M 7.84 SD 2.73	M 6.15 SD 3.31	M 6.94 SD 3.36	M 7.00 SD 3.69	F(3,70) = .86
Factor 2 (Wishful Thinking)	M 11. 21 SD 2.90	M 9.20 SD 4.21	M 11.00 SD 4.09	M 10.89 SD 4.43	F(3,70) = 1.09
Factor 3 (Mixed)	M 3.90 SD 1.97	M 3.05 SD 2.48	M 4.05 SD 2.11	M 3.83 SD 2.77	F(3,70) = .70
Factor 4 (Growth)	M 2.58 SD 1.71	M 1.70 SD 1.69	M 3.06 SD 2.19	M 3.22 SD 1.87	F(3,70) = 2.60[a]
Factor 5 (Minimize Threat)	M 2.32 SD 1.83	M 2.50 SD 1.91	M 2.24 SD 1.64	M 4.17 SD 2.09	F(3,70) = 4.29*
Factor 6 (Seek Social Support)	M 2.05 SD .85	M 2.15 SD .93	M 2.71 SD .47	M 1.61 SD 1.20	F(3,70) = 4.32*

Table 5 (continued)

	Short-Term UC	Long-Term UC	Siblings	Short-Term Arthritis	
Factor 7 (Blame Self)	M 1.47 SD 1.12	M .90 SD 1.17	M 1.77 SD 1.35	M .94 SD 1.16	$F(3,70) = 2.22^{a}$

[a] $p < .10$

* $p < .01$

Table 6

Analysis of Means for Coping Styles

	GROUP			
	Short-Term UC	Long-Term UC	Siblings	Short-Term Arthritis
Emotion Focused Coping	M 18.05 SD 5.27 (N = 19)	M 14.90 SD 6.74 (N = 20)	M 19.35 SD 5.42 (N = 18)	M 20.44 SD 8.33[b] (N = 18)
Growth	M 2.58 SD 1.71 (N = 19)	M 1.7 SD 1.69 (N = 20)	M 3.06 SD 2.19 (N = 18)	M 3.22 SD 1.87 (N = 18)
Minimize Threat	M 2.32 SD 1.83 (N = 19)	M 2.5 SD 1.91 (N = 20)	M 2.24 SD 2.64 (N = 18)	M 4.17 SD 2.09[a] (N = 18)
Seek Social Support	M 2.05 SD 1.12 (N = 19)	M 2.15 SD 1.17 (N = 20)	M 2.71 SD 1.35 (N = 18)	M 1.61 SD 1.16 (N = 18)
Blame Self	M 1.47 SD 1.12 (N = 19)	M .9 SD 1.17 (N = 20)	M 1.76 SD 1.35 (N = 18)	M .944 SD 1.16 (N = 18)

NOTE: [a]Means are significantly different, $p < .01$

[b]Means are significantly different at $p < .10$ level.

episodes. Interrater reliability of these categories, as assessed by a Pearson Correlation Coefficient, was .92 ($N = 74$, $p < .001$), indicating a high level of agreement. Sixty-five per cent of the sample described stressful situations relating to either health, family, or work matters. The modal stress described pertained to work matters with 28% ($N = 21$). The chi-square analysis yielded no significance, $\chi^2(12) = 10.47$, $p < .05$, indicating equivalence across groups with regard to the type of stressful situations with which they were attempting to cope.

Ego Development

The modal ego maturity stage attained was I-3/4, with 42% ($N = 30$) of the sample scoring in this range. Seventy-two percent of the sample scored in the I-3 or I-3/4 stage while 85% ($N = 61$) scored I-3/4 or lower. Two chi-square analyses were done to ascertain the differences in level of ego maturity across the four groups as measured by the Sentence Completion Test. Because of the small N's found in the extreme stages, two collapsed categories were formed; low (I-3 or lower, $N = 22$) and high (I-3/4 or higher, $N = 41$). Data for this analysis yielded insignificant results, $\chi^2(3, N = 72) = 2.10$, $p < .05$. This analysis was then redone collapsing Loevinger's ego stages into categories; low (I-3 or lower, $N = 31$), middle (I-3/4, $N = 30$), and high (I-4 or higher, $N = 11$). Results of this analysis were also insignificant, $\chi^2(6, N = 76) = 3.43$, $p < .05$. These results indicate that all groups were equivalent with regard to level of ego maturity attained. Results can be seen in Table 7.

This finding did not support the hypothesis that ulcerative colitis patients would have attained a lower level of ego development

Table 7

Chi-Square Analysis of Ego Maturity for the Sample

	Group				
	Short-Term UC	Long-Term UC	Siblings	Short-Term Arthritis	Total
Ego Stage					
Low	10	8	8	5	31 (43.1%)
High	9	10	10	12	41 (56.9%)
Total	19 (26.4%)	18 (25%)	18 (25%)	17 (23.6%)	72 (100 %)
Ego Stage					
Low	10	8	8	5	31 (40.8%)
Mid	7	7	6	10	30 (39.5%)
High	3	5	4	3	15 (19.7%)
Total	20 (26.3%)	20 (26.3%)	18 (23.7%)	18 (23.7%)	76 (100 %)

χ^2 (b, $\underline{N}$ = 76) = 3.43, $\underline{p}$ = .75

than the other individuals. In addition, ego development did not relate to age, $r = .07$ ($N = 72$), $p < .05$; nor to educational level, $r = .06$ ($N = 72$), $p < .05$, as assessed by a Pearson Correlation Coefficient. Numerous t tests were performed to ascertain the relationship between ego development and coping style. This was assessed using the scores for each individual on the 9 categories of coping style at the 3 stages of ego development. None of the analyses yielded significance.

Background and Demographic Variables

Final data analyses involved determining the comparability among the groups on background and demographic variables. While a number of chi-square analyses were attempted, group cell sizes provided by the distribution were too small to enable a meaningful statistical comparison. However, a pattern previously described noted greater variation on these variables for arthritis patients. There was a significant age difference for the sample, as assessed by an analysis of variance, $F(3,72) = 2.94$, $p < .05$. The arthritis patients were approximately 10 years older ($M = 43.89$) than the individuals in the other groups; the mean ages for the other groups ranged from 32.94 to 34.95.

Two chi-square analyses were done to assess the comparability among the groups with regard to both severity of illness and response to treatment. For purpose of analysis severity of illness was categorized as follows: (a) remission/mild; (b) moderate; and (c) severe. Response to medical treatment was divided into categories of poor, fair, and good. Seventy-five percent ($N = 42$) of the patients were seen as evidencing a mild disorder while only 4% ($N = 2$) were in

the severe range. In addition, 40% (N = 26) were seen as having a good response to treatment while only 8% (N = 4) were viewed as responding poorly. The results of these chi-square analyses were significant with regard to both severity of illness, $\chi^2(4, N = 50) = 3.18$, $p > .05$ and response to treatment, $\chi^2(4, N = 52) = 2.01$, $p > .05$.

An analysis of variance was done to assess the possibility of a differential response set of social desirability among the groups. The data yielded insignificant findings, $F(3,72) = 1.77$, $p > .05$ suggesting all groups responded similarly in terms of their level of disclosure. The mean for the sample (M = 15.15, SD = 5.93) compared favorably with the norms provided by Crowne and Marlowe (1960). There was a significant difference among the groups regarding the experience of psychotherapy as measured by a chi-square statistic, $\chi^2(3, N = 73) = 12.75$, $p < .01$. Results of the analysis are presented in Table 8. An examination of the distribution indicates that individuals who recently developed illnesses (both ulcerative colitis and arthritis patients) were less likely to have been in psychotherapy than healthy siblings and patients who had been ill for a number of years. In order to follow up this finding, additional analyses were performed to determine a possible relationship between having been in psychotherapy and the dependent variables in the study. A series of t tests were performed to assess the relationship between the experience of psychotherapy and the following dependent measures: psychological distress level, quantity and quality of stress, and coping style. The total score on each of these scales was compared for individuals who had and those who had never received psychotherapy. A chi-square analysis was performed to determine the

Table 8

Chi Square Analysis of Individuals in Psychotherapy

	Psychotherapy				
	Short-Term UC	Long-Term UC	Siblings	Short-Term Arthritis	Total
In Psychotherapy	7	11	8	0	26(35.6%)
No Psychotherapy	12	9	10	16	47(64.4%)
Total	19(26%)	20(27.4%)	18(24.7%)	16(21.9%)	73(100 %)

$\chi^2(3, \underline{N} = 73) = 12.75, \underline{p} = .005$

relationship between the experience of psychotherapy and ego maturity level. The experience of psychotherapy was found to be related to only one dependent variable--psychological distress level. A significant t test indicated that individuals in psychotherapy were more likely to experience higher levels of psychological distress, $t(70) = 2.55$, $p < .05$.

CHAPTER V

DISCUSSION

The present project attempted to examine the role that psychological factors play in the development of chronic illness through the study of quantity and quality of stressful life experiences, ego maturity, coping strategies, and psychological symptom status in patients with newly diagnosed ulcerative colitis. Results of the study, however, provide little support for the hypotheses formulated. The present investigation did not find support for the notions that ulcerative colitis patients differ from others in the quality of stress they experience, their level of ego maturity nor their psychological distress levels. Differences were found in the coping strategies utilized by these patients and ones used by both their healthy siblings and arthritis patients. The failure to confirm many of these hypotheses is not unusual in light of both the conceptual and methodologic difficulties that plague the literature examining these psychological variables.

The study of the role that these psychological factors play in the development of disease had its roots in the psychosomatic medicine approach. Ulcerative Colitis was utilized as a major disease entity of study due to its association with psychosomatic disorders. Numerous studies attested to the ego weaknesses, overt psychopathology, and impaired adaptive capacities of these patients when faced with

challenging or stressful life experiences. Original hypotheses were formulated at a time when psychiatry was dominated by a classical psychoanalytic model. Hypotheses were difficult to assess and verify partly due to vague unoperationally defined usage of concepts such as coping, ego, and stress. These terms were used differently by reviewers even within the psychoanalytic school of thought. Many of these investigations were faulted for their lack of a systematic approach, relying too often on uncontrolled clinical impressions based on psychiatric interviews utilizing traditional psychoanalytical techniques or anecdotal evidence based on retrospective chart reviews and case studies. In addition, study was often of a retrospective nature on a heterogeneous sample who had been diagnosed years before. Problems in differential diagnosis existed in many of these reports. When more controlled studies were reviewed, however, findings were often more ambiguous or contradictory.

The present study, however, attempted to shift to a broader perspective on human behavior and psychological functioning utilizing a behavioral medicine approach that draws attention to the cognitive-emotional-behavioral processes of an individual rather than focusing on traditional notions of conflictual unconscious motivations, specific personality constellations, and object world of the patient. Specifically, the present study attempted to focus on the environmental setting of the individual at the time of illness and the particular strategies utilized to cope with specific stressful events. In addition, the present examination attempted to remedy methodological flaws found in previous investigations by conducting a systematic study

of recently diagnosed patients utilizing standard psychological measures of noted reliability and validity along with both comparison and control groups. Consequently, it may be difficult to verify earlier notions due to both philosophical or conceptual and methodological variations. That is, attempts to verify classically analytical concepts utilizing both a non-Freudian model and techniques not traditionally associated with that approach is a formidable task.

The failure to confirm a number of the hypotheses formulated in the study is not surprising in light of the above discussion. It was expected that ulcerative colitis patients would not differ in the quantity of stress but would differ in the type of stress experienced in that they would evidence more undesirable events and exits in their social sphere indicative of the depressive elements noted in their personality. Numerous reviewers attested to the role that bereavements, love loss and separation play in the onset of this disease. Engel (1955) had described the "giving up-given up complex" that these patients seemed to evidence in response to situations of loss which resulted in a state of helplessness and hopelessness. Since that time, others have noted the same psychological complex in a high proportion of medical patients who are diagnosed as being chronically ill (Cohen, 1979; Hislop, 1974; Shmale, 1972). Thus, when comparison groups are included in investigations, ulcerative colitis patients do not appear to be unique in a personal sensitivity to specific types of stressors, particularly those of an undesirable or depressing nature. It is important to highlight that the present study found 22% of the siblings to note other chronic physical conditions in their background information. It might be that psychosomatic medicine has evolved from a

conflict-specific disease model to a general systems model applicable to all disorders.

The lack of significant findings with regard to level of ego development is not surprising in light of the above discussion, yet unexpected due to the numerous affirmations of impaired ego adaptive capacities in ulcerative colitis patients. It is intriguing to note that although these patients were not differentiated from other groups on this construct, scores for the entire sample were much lower than expected from such a well-educated population. Eighty-five percent of the population scored at a preconscientious level (less than I-4), indicating in the sample general dependency, conformity, and compliance to conventional group norms of acceptability. This is congruent with the lack of significant findings on the Marlowe-Crowne social desirability scale indicating equivalent levels of disclosure among the participants.

While the ego has been considered an important area of personal resource, its roots within the analytic approach have led to variations in the use of the term and the measures with which to assess it (Haan, 1982). A likely explanation for the lack of results is that Loevinger's model may not accommodate the classical psychoanalytic viewpoint as her developmental assumptions are rooted more in the work of individuals like Piaget, Kohlberg, and Erikson. Thus, both the framework and measures may not be appropriate to replicate previous findings. It is interesting to note that McMahon et al. (1982) did find a differential effect of lower ego development in ulcerative colitis patients as compared with a group of their siblings. While these authors utilized

various procedures in their assessment, including psychometric tests, personality and defense ratings, as well as psychiatric interviews, their findings were not noted on the standard psychometric measurements --only on measurements utilizing analytic techniques. It is possible that these paper and pencil tests or other similar psychological procedures are not sufficiently sensitive or specific to detect the personality features noted by clinicians. On the other hand, it is possible that the subjective measures of both clinicians and some previous studies may have introduced bias into their conclusions.

Although the global personality differences noted in the previous literature are not found when utilizing a non-analytic framework and stringently controlled procedures, one does find differences in specific coping strategies employed to deal with stress. While some differences were found for arthritis patients, these cannot really be interpreted in light of their extreme variation from other groups on background and other demographic variables. It is also important to note that the use of a sibling group for purpose of control is a stringent one due to the shared background and family environment with ulcerative colitis patients. Consequently, whatever differences noted would probably be enhanced had a different control group of healthy individuals been used in the present study. Lastly, comments and conclusions about coping style differences must be made with caution as the present investigation utilized only one sample of coping behavior--a deviation from the original author's procedure. The Ways of Coping Scale was designed as a process measure to be administered repeatedly across occasions in order to ferret out more coping style. It was expected that ulcerative

colitis patients would utilize less problem-focused and growth-oriented coping strategies and more wishful thinking, avoidance and seeking of emotional support than the other individuals. This hypothesis was formulated in light of the extensive literature noting their propensity toward the utilization of defenses such as denial, projection and withdrawal in dealing with conflict. In addition, hypotheses were formulated according to the findings that these patients displayed severe dependent and helpless traits along with impaired ego adaptive capacities. While it was confirmed that ulcerative colitis patients utilize less growth-oriented coping strategies than their healthy siblings, the other hypotheses were not borne out. In fact, healthy siblings tended to utilize more emotion-focused coping and seeking of emotional support. These findings make sense when one reviews the original literature.

It had been noted that ulcerative colitis patients exhibited a number of pregenital character traits, especially those of a compulsive and dependent nature. It was also stated that their object relationships were immature, characterized by a deep ambivalent symbiotic attachment to one or two key persons with a limited capacity to establish warm and genuine relationships with others. The symbiotic nature of the relationship presumed a life and death dependency on this other person for approval and the patients' continued psychological well-being. As a result, expressions of affect, especially that of anger were suppressed due to the fear of loss of this significant relationship. Consequently, it is logical that these patients would utilize less emotion-focused coping strategies and seeking of emotional support. Their compulsive nature would lead them to have greater

difficulty dealing with overwhelming affect. Thus, they would probably internalize any indication of emotion. This might also account for their lack of reported psychological distress. In addition, while these patients are said to be dependent, it is a frustrated type of dependency whereby they are so tied to a significant figure that they cannot get those dependency needs appropriately met in the environment with other individuals. Siblings in the study also utilized more self-blame in their style of coping than these patients. This is reasonable when one notes the use of projective defenses that these patients evidence in the literature. This would probably lead them to take less responsibility for their behavior and themselves--a feature that is traditionally associated with lower levels of ego development.

One particularly interesting finding in the present study was the significant difference among the groups in the experience of psychotherapy. It was noted that both healthy siblings and individuals having long-term ulcerative colitis were more likely to be in psychotherapy than recently diagnosed patients. There was also a significant correlation between the experience of psychotherapy and higher psychological distress levels. A number of explanations may be posited for these findings. The finding of differential attendance in psychotherapy for the groups is particularly interesting with regard to the previous differences in coping strategies found in the study. It would make sense that healthy siblings would be more likely to enter therapy in light of their propensity to utilize more emotion-focused and growth-oriented coping as well as their tendency to seek our social supports. The fact that these individuals tended to blame themselves more in

attempts to cope might speak to taking greater responsibility for their problems. Thus, they seek out an arena with which to work on their issues. In light of the earlier discussion regarding the dynamic formulations of compulsive traits where the person is seen as more constricted and less open to affect as well as exhibiting a frustrated dependency that prohibits reaching out to others in healthy ways, it is logical that those recently diagnosed patients would not be in an emotional and growth-oriented process such as psychotherapy. The finding that individuals with long-term ulcerative colitis were more likely to be in therapy than those recently diagnosed may attest to the notion that these individuals may have entered the situation due to the frustration of being ill and the awareness that coping strategies were somehow ineffective. They might desire assistance in dealing with their illness. It is possible that psychotherapy might help them verbalize fears, concerns and begin to prepare them to cope more adequately with the physical and psychological discomforts to be faced. It would also make sense that individuals who are in distress might be more likely to seek therapy to help them deal with their concerns. In addition, the process of therapy would probably increase both awareness and sensitivity to conflicts and feelings. Consequently, it is reasonable to assume that in the face of dealing with surfacing conflicts, psychological distress levels would initially rise.

Although a certain amount of time is ncessary for patients to be involved in the therapeutic process for positive change to be effected, the exact nature and amount of contact is not known at this time. It might be profitable for behavioral medicine specialists to

prospectively assess how the experience of psychotherapy might be effective over the long run for ulcerative colitis patients in therapy. That is, how might therapy be related to future psychological distress levels, ego developmental changes and variations in both the use of coping strategies and their effectiveness.

Reviewers have postulated that psychological factors play an important role in the development of ulcerative colitis. Specifically, the alleged failure of adaptive processes on the part of the individual under challenging circumstances was seen as a way to elucidate the role of these factors (Kirsner, 1978). The present study did find differences between healthy individuals and those with ulcerative colitis and other chronic illnesses with regard to specific coping strategies used to deal with stressful life events. Definitive statements regarding the role that these factors might play in the development of ulcerative colitis and other illnesses cannot be made at this time due to both conceptual and methodological controversies in the field of study.

One must be cautious in interpreting the results of this study for a number of reasons. While the use of siblings represent a fairly stringent control group, 22% of this particular group reported other chronic illnesses in their background. Consequently, this would make whatever effects found probably more minimal than they really would be if a different type of control group had been used. In addition, it must be noted that only one sample of coping behavior was attained in this study. Future investigations would warrant a greater sampling of coping strategies. Lastly, utilizing arthritis patients as a

comparison group for individuals with ulcerative colitis may not be ideal due to their historical relationship in the psychosomatic literature as well as their systematic relationship as disorders.

At this point in time, little has been known about the patterns of coping most people with chronic illnesses use, which patterns work for certain types of individuals, and the specific set of circumstances under which they are effective; that is, how they might facilitate or impair adaptational outcomes to illness. Coping processes have been insufficiently specific and yet abstract enough to permit the generalizations needed in the field. An additional question is how are we to evaluate the effectiveness of coping. For example, in the present study psychological symptom status was viewed as a preliminary indication of coping effectiveness. In what domains are we to evaluate more fully effective strategies of dealing with stress (physiological, psychological social)? For instance, this particular study found a significant difference in the seeking of social supports as a style of coping. This was seen as being consistent with earlier notions in the literature of both a frustrated dependency and a tendency toward poor interpersonal relationships in these patients. Additional studies might explore this social domain as a possible arena for differences in coping style and effectiveness. Thus, one might assess coping over a variety of situations utilizing greater sources of observation. These might include standard psychometric measures, interviews, ratings by the patients themselves as well as those of individuals within their social sphere (friends, family and physicians). Lastly, developing symptoms and undergoing medical treatment can be highly stressful

events in and of themselves. One might want to address not only the issue of how these patients cope with stress in general, but how they cope or adjust to living with a chronic illness over time.

In summation, the present study attempted a comprehensive investigation of the contributing role of psychological factors to the development of ulcerative colitis utilizing both objective psychometric tools as well as multiple comparison groups. The main thrust of the study was to provide a preliminary analysis of how these patients cope with stress and to examine how personal resources (ego maturity) might mediate or facilitate effective coping through examination of specific coping strategies utilized to deal with specific stressors. While the results did not support the notion of global ego maturity differences unique to ulcerative colitis patients, they did suggest differences in coping with stressful life events. These initial differences noted, particularly with regard to emotion-focused coping and the seeking of emotional support, might be a fruitful area for further exploration.

Research efforts must be directed at these pertinent questions if we hope to make suggestions about beneficial interventions for people both developing and dealing with ulcerative colitis and other chronic illnesses. In order to fully elucidate the impact of these psychological variables such as coping style on both the development and course of illness, future research should be directed away from global categorization of coping toward refining measures which will lead to greater specificity in the analysis of adaptive strategies. In order to better predict the health consequences of stress, future

studies should be aimed at prospective longitudinal systematic investigations utilizing a group of clearly diagnosed patients with built in appropriate controls and other comparison groups beginning at the time of diagnosis. Assessments should include multidimensional measures such as standard psychometric tests (both of a projective and nonprojective nature), and interviews with both patients and the important people in their lives (family, friends, and physicians). This approach might permit the drawing of firmer conclusions regarding the role that psychological factors play in the development of ulcerative colitis and other diseases. In addition, one might be able to better ascertain how these processes change or affect adjustment over the course of illness.

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APPENDIX A

INSTRUCTIONS FOR PARTICIPANTS

Important: Please read this entire page carefully before answering any questions.

The following packet contains 6 brief surveys for you to complete. The questionnaires contain various items that ask for different kinds of information. For example, the Background questionnaire asks things pertaining to your family, medical, and personal background. The other questionnaires are all designed to give information on the kinds of stressors (hassles) people experience and the way people try to deal with them.

Please fill out each questionnaire and all of its items openly and honestly. If you feel a question is objectionable, feel free to skip that item. As we discussed on the phone, your participation is voluntary and will in no way affect your treatment or become part of your personal medical record. Your confidentiality is also insured because code numbers, not names, will be used to keep the materials together and to identify the answers people give to the various questions.

If you would like to know the results of the study I will send you the information if you check the statement below. It is important for you to understand that this information would not be individual (i.e., how you cope), but would give you the opportunity to learn about how people with different illnesses cope with the stressors (hassles) in life that we might all face.

Try to put aside one time to complete the questionnaires; this will take approximately 2 hours. When you begin, move through the items at a comfortable pace attempting to answer each question. Try not to think or worry too much about each item. Put the questionnaires in the return envelope and mail it as soon as you finish. I would like to remind you that you will be receiving another packet containing only one questionnaire to fill out approximately 3 weeks from now.

If you have any questions or concerns, please feel free to call me at (312) 743-7126.

Thank you for your time and cooperation.

Sincerely,

Ileen Liss, M.A.

I would like to know the results of the study _____.

I. GENERAL ID # _____

Date _____

1. Sex
   1 Male _____
   2 Female _____

2. Age _____

3. Race (circle the appropriate number)
   1 White
   2 Black
   3 Asian
   4 Hispanic
   5 other (specify) _____

4. Religion (circle the appropriate number)
   1 Catholic
   2 Jewish
   3 Protestant
   4 none
   5 other

5. Education
   1 6th grade or less
   2 8th grade or less
   3 some high school
   4 completed high school
   5 complete 1 or 2 years of college
   6 college graduate
   7 completed at least 1 year of graduate education
   8 graduate degree

6. Occupation (Describe) _____

_____

7. Family Income (circle the appropriate number)
   1 none
   2 less than $5,000
   3 $5-9,999
   4 $10-14,999
   5 $15-19,999
   6 $20-29,999
   7 $30-39,999
   8 $40-49,999
   9 $50,000 or more
  10 government support

8. Employed (circle the appropriate number)
   1 full-time
   2 part-time
   3 unemployed

9. Marital Status
   1 single
   2 engaged
   3 married
   4 remarried
   5 separated
   6 divorced
   7 widowed

10. Who is the primary financial provider in your house?
   1 self
   2 other
   3 joint (self and other)

(If you circled #1 to question 10, go on to question 14. If you circled #2 or #3, answer the next 3 questions.)

11. What is the education level of the primary financial provider in your house?
   1 6th grade or less
   2 8th grade or less
   3 some high school
   4 completed high school
   5 completed 1 or 2 years of college
   6 college graduate
   7 completed at least 1 year of graduate school
   8 graduate degree

12. What is the occupation of the primary financial provider in your house? _____

13. What is the income of the primary financial provider in your house?
   1 none
   2 less than $5,000
   3 $5-9,999
   4 $10-15,999
   5 $16-20,999
   6 $21-30,999
   7 $31-40,999
   8 $41,000 or more
   9 government support

14. Do you have children?
   1 yes
   2 no

(If you answered #1 to question 14, answer question 15. If you answered #2, then go to question 16.)

15. Number of children _____

II. MEDICAL BACKGROUND (Respond only to applicable questions in this section.)

16. How are you feeling today?
    1 terrible
    2 poor
    3 fair
    4 good
    5 excellent

17. How long did you experience symptoms before your illness was diagnosed? _____

18. Are you presently taking medication for your illness?
    1 yes
    2 no

19. State the type of medication and the amount.

_____

(If you answered #1 to question 18, then respond to question 19. If you responded #2, then go to question 20.)

20. How would you rate the severity of your illness?
    1 mild
    2 moderate
    3 severe
    4 incapacitating

21. How would you rate your response to the medical treatment?
    1 poor
    2 fair
    3 good
    4 excellent

22. Have you had surgical treatment for the illness?
    1 yes
    2 no

23. Do you have any other chronic medical problems?
    1 yes
    2 no

(If you answered #1 to question 23, then answer question 24. If you answered #2, then go to question 25.)

24. List the other medical illnesses you have and the length of time you have each one:

_____

_____

_____

_____

25. Is there anyone in your immediate or extended family that has or had a gastrointestinal (stomach problems) disorder?
1 yes
2 no

(If you answered #1 to question 25, then answer question 26. If you answered #2, then go to question 27.)

26. List the family member, type of gastrointestinal (stomach problem) disorder and age began (i.e., mother, father, sibling, child, grandmother, aunt, uncle, etc.).

_____

_____

_____

_____

27. Is there anyone in your family that has(had) other chronic illnesses?
1 yes
2 no

(If you answered #1 to question 27, then answer question 28. If you answered #2, then go to question 29.)

28. List the family member, type of illness and age began (i.e., mother, father sibling, uncle, aunt, grandmother, child, etc.).

_____

_____

_____

_____

29. Have you received any psychotherapy or counseling?
1 yes
2 no

(If you answered #1 to question 29, then answer question 30. If you answered #2, then go on to question 31.)

30. List the type of psychotherapy and the length of time you have been involved.

III. FAMILY BACKGROUND

31. Do you have any siblings?
    1 yes
    2 no

(If you answered #1 to question 31, then answer question 32. If you answered #2, then go on to question 33.)

32. List the number and ages of your siblings.

---

33. What is the marital status of your parents?
    1 living together
    2 separated
    3 divorced
    4 widowed
    5 both deceased

34. If you come from a broken home (divorced, death), what age were you when this occurred? _____

35. What was the occupation of the primary financial provider in your house when you were growing up?

---

36. What was the education level of the primary financial provider in your house when you were growing up?
    1 6th grade or less
    2 8th grade or less
    3 some high school
    4 completed high school
    5 completed 1 or 2 years of college
    6 college graduate
    7 at least 1 year of post graduate education
    8 graduate degree

37. If either or both parents are deceased, list the person and the cause of death and your age at the time.

_____

_____

38. Who were you closest to while growing up?
    1 mother
    2 father
    3 sibling
    4 other (specify) _____

ID # _____

PERSONAL REACTION INVENTORY

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is "true" or "false" as it pertains to you personally.

1. Before voting I thoroughly investigate the qualifications of all the candidates _____

2. I never hesitate to go out of my way to help someone in trouble _____

3. It is sometimes hard for me to go on with my work if I am not encouraged _____

4. I have never intensely disliked anyone _____

5. On occasion I have had doubts about my ability to succeed in life _____

6. I sometimes feel resentful when I don't get my way _____

7. I am always careful about my manner of dress _____

8. My table manners at home are as good as when I eat out in a restaurant _____

9. If I could get into a movie without paying and be sure I was not seen I would probably do it _____

10. On a few occasions, I have given up doing something because I thought too little of my ability _____

11. I like to gossip at times _____

12. There have been times when I felt like rebelling against people in authority even though I knew they were right _____

13. No matter who I'm talking to, I'm always a good listener _____

14. I can remember "playing sick" to get out of something _____

15. There have been occasions when I took advantage of someone _____

16. I'm always willing to admit it when I make a mistake _____

17. I always try to practice what I preach _____

18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people _____

19. I sometimes try to get even rather than forgive and forget _____

20. When I don't know something I don't at all mind admitting it _____

21. I am always courteous, even to people who are disagreeable _____

22. At times I have really insisted on having things my own way _____

23. There have been occasions when I felt like smashing things _____

24. I would never think of letting someone else be punished for my wrongdoings _____

25. I never resent being asked to return a favor _____

26. I have never been irked when people expressed ideas very different from my own _____

27. I never make a long trip without checking the safety of my car _____

28. There have been times when I was quite jealous of the good fortune of others _____

29. I have almost never felt the urge to tell someone off _____

30. I am sometimes irritated by people who ask favors of me _____

31. I have never felt that I was punished without cause _____

32. I sometimes think when people have a misfortune they only got what they deserved _____

33. I have never deliberately said something that hurt someone's feelings _____

LIFE EVENTS INVENTORY ID # _____

Instructions: Below is a list of events that occur in the lives of many people. Please put a check next to any event that occurred within the previous 12 months.

1. Increase in arguments with spouse _____
2. Marital separation _____
3. Start new type of work _____
4. Change in work conditions _____
5. Serious personal illness _____
6. Death of immediate family member _____
7. Serious illness of family member _____
8. Family member leaves home _____
9. Move _____
10. New person in home _____
11. Major financial problems _____
12. Pregnancy _____
13. Unemployed _____
14. Court appearance _____
15. Childbirth _____
16. Lawsuit _____
17. Engagement _____
18. Demotion _____
19. Change schools _____
20. Child engaged _____
21. Promotion _____
22. Fired _____

23. Leave school _____

24. Marriage _____

25. Child married _____

26. Jail _____

27. Son drafted _____

28. Birth of a child (for father) _____

29. Divorce _____

30. Business failure _____

31. Stillbirth _____

32. Pregnancy of wife _____

33. Retirement _____

34. Increase in arguments with family members _____

35. Death of a close friend _____

INCOMPLETE SENTENCE INVENTORY ID # _____ W

INSTRUCTIONS: Complete the following sentences.

1. Raising a family _____

2. Most men think that women _____

3. When they avoided me _____

4. If my mother _____

5. Being with other people _____

6. The thing I like about myself is _____

7. My mother and I _____

8. What gets me into trouble is _____

9. Education _____

_____

_____

10. When people are helpless _____

_____

_____

11. Women are lucky because _____

_____

_____

12. My father _____

_____

_____

13. A pregnant woman _____

_____

_____

14. When my mother spanked me, I _____

_____

_____

15. A wife should _____

_____

_____

16. I feel sorry _____

_____

_____

17. When I am nervous I _____

_____

_____

18. A woman's body _____

_____

_____

19. When a child won't join in group activities _____

_____

_____

20. Men are lucky because _____

_____

_____

21. When they talked about sex, I _____

_____

_____

22. At times she worried about _____

_____

_____

23. I am _____

_____

_____

24. A woman feels good when _____

_____

_____

25. My main problem is _____

_____

_____

26. Whenever she was with her mother, she _____

_____

_____

27. The worst thing about being a woman _____

_____

_____

28. A good mother _____

_____

_____

29. Sometimes she wished that _____

_____

_____

30. When I am with a man _____

_____

_____

31. When she thought of her mother, she _____

_____

_____

32. If I can't get what I want _____

_____

_____

33. Usually she felt that sex _____

_____

_____

34. For a woman a career is _____

_____

_____

35. My conscience bothers me if _____

_____

_____

36. A woman should always _____

_____

_____

INCOMPLETE SENTENCE INVENTORY ID# _____ M

INSTRUCTIONS: Complete the following sentences.

1. Raising a family _____

2. Most women think that men _____

3. When they avoided me _____

4. If my mother _____

5. Being with other people _____

6. The thing I like about myself is _____

7. A man's job _____

8. If I can't get what I want _____

9. I am embarrassed when _____

_____

_____

10. Education _____

_____

_____

11. When people are helpless _____

_____

_____

12. Women are lucky because _____

_____

_____

13. What gets me into trouble is _____

_____

_____

14. A good father _____

_____

_____

15. If I were kind _____

_____

_____

16. A wife should _____

_____

_____

17. I feel sorry _____

_____

_____

18. When a child won't join in group activities _____

_____

_____

19. When I am nervous, I _____

_____

_____

20. He felt proud that he _____

_____

_____

21. Men are lucky because _____

_____

_____

22. When they talked about sex, I _____

_____

_____

23. At times he worried about _____

_____

_____

24. I am _____

_____

_____

25. A man feels good when _____

_____

_____

26. My main problem is _____

_____

_____

27. When his wife asked him to help with the housework _____

_____

_____

28. When I am criticized _____

_____

_____

29. Sometimes he wished that _____

_____

_____

30. When I am with a woman _____

_____

_____

31. When he thought of his mother, he _____

_____

_____

32. The worst thing about being a man _____

_____

_____

33. Usually he felt that sex _____

_____

_____

34. I just can't stand people who _____

_____

_____

35. My conscience bothers me if _____

_____

_____

36. Crime and delinquency could be halted if _____

_____

_____

COPING QUESTIONNAIRE

The purpose of this questionnaire is to find out the kinds of situations that trouble people in their day-to-day lives, and how people deal with them.

Part 1.

Take a few moments and think about the event or situation that has been the most stressful for you during the last month. By "stressful" we mean a situation which was difficult or troubling to you, either because it made you feel bad or because it took effort to deal with it. It might have been something to do with your family, with your job, or with your friends.

In the space below, please describe the most stressful event of the past month. Describe what happened and include details such as the place, who was involved, what you did, what made it important to you, and perhaps, what led up to the situation. The situation could also be one that is going on right now as well as one that has already happened. Don't worry about making it into an essay--just put down the things that come to you.

Go on to the next page

I.D. No. _____

Date _____

WAYS OF COPING

Thinking about the situation you have just described, put a check in the "Yes" or "No" column for each item, depending on whether that item applied to you.

(To help keep the situation in mind): I am talking about the situation in which _____

_____

_____

	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	☐	☐
7. Got the person responsible to change his or her mind	☐	☐
8. Talked to someone to find out more about the situation	☐	☐
9. Blamed yourself	☐	☐
10. Concentrated on something good that could come out of the whole thing	☐	☐

GO ON TO THE NEXT PAGE

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

GO ON TO THE NEXT PAGE

	YES	NO
29. Tried to make up to someone for the bad thing that happened	☐	☐
30. Made a plan of action and followed it	☐	☐
31. Accepted the next best thing to what you wanted	☐	☐
32. Let your feelings out somehow	☐	☐
33. Realized you brought the problem on yourself	☐	☐
34. Came out of the experience better than when you went in	☐	☐
35. Talked to someone who could do something concrete about the problem	☐	☐
36. Got away from it for a while; tried to rest or take a vacation	☐	☐
37. Tried to make yourself feel better by eating, drinking, smoking, taking medication, etc.	☐	☐
38. Took a big chance or did something very risky	☐	☐
39. Found new faith or some important truth about life	☐	☐
40. Tried not to act too hastily or follow your first hunch	☐	☐
41. Joked about it	☐	☐
42. Maintained your pride and kept a stiff upper lip	☐	☐
43. Rediscovered what is important in life	☐	☐
44. Changed something so things would turn out all right	☐	☐
45. Avoided being with people in general	☐	☐

GO ON TO THE NEXT PAGE

	YES	NO
46. Didn't let it get to you; refused to think too much about it	☐	☐
47. Asked someone you respected for advice and followed it	☐	☐
48. Kept others from knowing how bad things were	☐	☐
49. Made light out of the situation; refused to get too serious about it	☐	☐
50. Talked to someone about how you were feeling	☐	☐
51. Stood your ground and fought for what you wanted	☐	☐
52. Took it out on other people	☐	☐
53. Drew on your past experiences; you were in a similar situation before	☐	☐
54. Just took things one step at a time	☐	☐
55. You knew what had to be done, so you doubled your efforts and tried harder to make things work	☐	☐
56. Refused to believe that it had happened	☐	☐
57. Made a promise to yourself that things would be different next time	☐	☐
58. Came up with a couple of different solutions to the problem	☐	☐
59. Accepted it, since nothing could be done	☐	☐
60. Wished you were a stronger person--more optimistic and forceful	☐	☐
61. Accepted your strong feelings, but didn't let them interfere with other things too much	☐	☐

GO ON TO THE NEXT PAGE

	YES	NO
62. Wished that you could change what had happened.	☐	☐
63. Wished that you could change the way you felt.	☐	☐
64. Changed something about yourself so that you could deal with the situation better	☐	☐
65. Daydreamed or imagined a better time or place than the one you were in	☐	☐
66. Had fantasies or wishes about how things might turn out	☐	☐
67. Thought about fantastic or unreal things (like the perfect revenge or finding a million dollars) that made you feel better	☐	☐
68. Wished that the situation would go away or somehow be over with	☐	☐
69. Did something different from any of the above	☐	☐

_____

_____

_____

In general, is this situation one

a. that you could change or do something about?. . Yes ☐ No ☐

b. that must be accepted or gotten used to?. . . . Yes ☐ No ☐

c. that you needed to know more about before you could act?. . . . . Yes ☐ No ☐

d. in which you had to hold yourself back from doing what you wanted to do?. . . . . Yes ☐ No ☐

If you checked "Yes" more than once, underline the statement which best describes the situation.

SCL-90-R

Name:_____ Technician:_____ Ident. No._____

Location:_____ Visit No.:_____ Mode: S-R_____ Nar_____

Age:_____ Sex: M_____ F_____ Date:_____ Remarks:_____

INSTRUCTIONS

Below is a list of problems and complaints that people sometimes have. Read each one carefully, and select one of the numbered descriptors that best describes HOW MUCH DISCOMFORT THAT PROBLEM HAS CAUSED YOU DURING THE PAST Week INCLUDING TODAY. Place that number in the open block to the right of the problem. Do not skip any items, and print your number clearly. If you change your mind, erase your first number completely. Read the example below before beginning, and if you have any questions please ask the technician.

EXAMPLE

HOW MUCH WERE YOU DISTRESSED BY: Descriptors: 0 Not at all; 1 A little bit; 2 Moderately; 3 Quite a bit; 4 Extremely

Ex. Body Aches..... Ex. Answer [3]

HOW MUCH WERE YOU DISTRESSED BY:	
1. Headaches	☐
2. Nervousness or shakiness inside	☐
3. Repeated unpleasant thoughts that won't leave your mind	☐
4. Faintness or dizziness	☐
5. Loss of sexual interest or pleasure	☐
6. Feeling critical of others	☐
7. The idea that someone else can control your thoughts	☐
8. Feeling others are to blame for most of your troubles	☐
9. Trouble remembering things	☐
10. Worried about sloppiness or carelessness	☐
11. Feeling easily annoyed or irritated	☐
12. Pains in heart or chest	☐
13. Feeling afraid in open spaces or on the streets	☐
14. Feeling low in energy or slowed down	☐
15. Thoughts of ending your life	☐
16. Hearing voices that other people do not hear	☐
17. Trembling	☐
18. Feeling that most people cannot be trusted	☐
19. Poor appetite	☐
20. Crying easily	☐
21. Feeling shy or uneasy with the opposite sex	☐
22. Feelings of being trapped or caught	☐
23. Suddenly scared for no reason	☐
24. Temper outbursts that you could not control	☐
25. Feeling afraid to go out of your house alone	☐
26. Blaming yourself for things	☐
27. Pains in lower back	☐
28. Feeling blocked in getting things done	☐
29. Feeling lonely	☐
30. Feeling blue	☐
31. Worrying too much about things	☐
32. Feeling no interest in things	☐
33. Feeling fearful	☐
34. Your feelings being easily hurt	☐
35. Other people being aware of your private thoughts	☐
36. Feeling others do not understand you or are unsympathetic	☐
37. Feeling that people are unfriendly or dislike you	☐
38. Having to do things very slowly to insure correctness	☐
39. Heart pounding or racing	☐
40. Nausea or upset stomach	☐
41. Feeling inferior to others	☐
42. Soreness of your muscles	☐
43. Feeling that you are watched or talked about by others	☐
44. Trouble falling asleep	☐
45. Having to check and double-check what you do	☐
46. Difficulty making decisions	☐
47. Feeling afraid to travel on buses, subways, or trains	☐
48. Trouble getting your breath	☐
49. Hot or cold spells	☐
50. Having to avoid certain things, places, or activities because they frighten you	☐
51. Your mind going blank	☐
52. Numbness or tingling in parts of your body	☐

PLEASE CONTINUE ON THE FOLLOWING PAGE ▷

SCL-90-R

HOW MUCH WERE YOU DISTRESSED BY:	Descriptors 0 Not at all 1 A little bit 2 Moderately 3 Quite a bit 4 Extremely
53. A lump in your throat	☐
54. Feeling hopeless about the future	☐
55. Trouble concentrating	☐
56. Feeling weak in parts of your body	☐
57. Feeling tense or keyed up	☐
58. Heavy feelings in your arms or legs	☐
59. Thoughts of death or dying	☐
60. Overeating	☐
61. Feeling uneasy when people are watching or talking about you	☐
62. Having thoughts that are not your own	☐
63. Having urges to beat, injure, or harm someone	☐
64. Awakening in the early morning	☐
65. Having to repeat the same actions such as touching, counting, washing	☐
66. Sleep that is restless or disturbed	☐
67. Having urges to break or smash things	☐
68. Having ideas or beliefs that others do not share	☐
69. Feeling very self-conscious with others	☐
70. Feeling uneasy in crowds, such as shopping or at a movie	☐

HOW MUCH WERE YOU DISTRESSED BY:	Descriptors 0 Not at all 1 A little bit 2 Moderately 3 Quite a bit 4 Extremely
71. Feeling everything is an effort	☐
72. Spells of terror or panic	☐
73. Feeling uncomfortable about eating or drinking in public	☐
74. Getting into frequent arguments	☐
75. Feeling nervous when you are left alone	☐
76. Others not giving you proper credit for your achievements	☐
77. Feeling lonely even when you are with people	☐
78. Feeling so restless you couldn't sit still	☐
79. Feelings of worthlessness	☐
80. The feeling that something bad is going to happen to you	☐
81. Shouting or throwing things	☐
82. Feeling afraid you will faint in public	☐
83. Feeling that people will take advantage of you if you let them	☐
84. Having thoughts about sex that bother you a lot	☐
85. The idea that you should be punished for your sins	☐
86. Thoughts and images of a frightening nature	☐
87. The idea that something serious is wrong with your body	☐
88. Never feeling close to another person	☐
89. Feelings of guilt	☐
90. The idea that something is wrong with your mind	☐

INSTRUCTIONS FOR PARTICIPANTS

Thank you for completing the packet of materials sent approximately 3 weeks ago. The present packet contains only 1 survey, The Ways of Coping Questionnaire. This survey is one of the questionnaires you filled out previously. Please complete this survey once again using a different stressful episode than the one you originally discussed in the previous packet. When you have finished put the questionnaire in the return envelope provided and mail it.

If you have any questions or concerns, please feel free to contact me at (312) 743-7126.

Thank you for your time and cooperation

Sincerely,

Ileen Liss, M.A.

APPENDIX B

Paykel Categorization of Stressful Events

1	Entrance	Engagement Marriage Birth of a child New person in home
	Exit	Death of immediate family member Separation Divorce Family member leaves home Child married Son drafted Death of a close friend
2	Desirable	Engagement Marriage Promotion
	Undesirable	Death of immediate family member Separation Demotion Serious illness of family member Jail Unemployment Court appearance Son drafted Divorce Business failure Fired Stillbirth Death of a close friend

3	Area of Activity	
	A-Employment	Begin new job Changes at work Demotion Fired Unemployment Promotion Retirement Business failure
	B-Health	Serious personal illness Serious illness of family member Pregnancy Birth Stillbirth
	C-Family	Child engaged Child married Son drafted Family member leaves home New person in home
	D-Marital	Marriage Separation Divorce Increase in arguments with spouse
	E-Legal	Court appearance Lawsuit Jail

APPENDIX C

Patient Name _____

Code # _____ (leave blank)

Severity of Illness Rating Form

A. Present Estimate of Illness Severity (circle appropriate letter)

a. remission

b. mild

c. moderate

d. severe

B. The patient's response to medical treatment thus far has been

a. poor

b. fair

c. good

APPROVAL SHEET

The dissertation submitted by Ileen Patrice Liss has been read and approved by the following committee:

Dr. Patricia Rupert, Director
Assistant Professor, Psychology, Loyola

Dr. Dan McAdams
Associate Professor, Psychology, Loyola

Dr. Daniel Barnes, Director
Loyola Counseling Center and
Associate Clinical Professor, Psychology, Loyola

The final copies have been examined by the Director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

October 24, 1985
Date

Patricia A. Rupert
Director's Signature