FACILITATING STRESS MASTERY AMONG HIGH-RISK PROFESSIONALS

By

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This experimental study was concerned with the identification, intervention and evaluation of stress-related variables among registered nurses. The study initially identified and assessed the variables of recent life events, locus of control and the level of projected conflict utilizing Holmes and Rahe's Social Readjustment rating scale (SRRS), Levenson's Tridimensional Locus of Control (I/P/C), and Rotter's Incomplete Sentences Blank (RISB), respectively. The intervention was facilitated group training based on social learning. It focused on holistic health concepts, generating self awareness and individual responsibility for stress mastery. The study examined perceptions of conflict and locus of control, mediated by life events. Group mean scores were measured and evaluated following the training.

Fifty-two female registered nurses comprised the total sample. The experimental and control groups were comparable in terms of

educational background, nursing experience, and salary, as well as hospital and nursing specialty representation.

Although the treatment group experienced a significantly higher degree of life changes ($p=.005$) than did the control group, these RN's ($n=27$) attending a continuing education class on stress mastery had significantly ($p=.05$) reduced projected conflict at the conclusion of the study. At the completion of the intervention the experimental group had increased perceived internal locus of control and decreased perceived control by powerful others. The control group ($n=25$), RN's attending an advanced course of study in nursing increased the sense of internal control, but also increased the perceived control by powerful others. Both groups decreased the perception of control by chance. Interactively, these changes were statistically non-significant. Separate ANOVA's indicated significance between chance and life events ($p=.03$) and between conflict and internality ($p=.008$ & $.012$, pretest and posttest), as well as conflict and powerful others ($p=.027$ and $.001$, pretest and posttest).

It was concluded that nurses who voluntarily enroll in a stress mastery intervention significantly decrease perceived conflict. They experience a significantly high level of life events and these events lead them to view their lives as being influenced by chance and powerful others. They are professionals who are at high risk because of a combination of life events and a perception of external control from either powerful others or chance. Therefore, an intervention focusing on a multifacted approach to reducing conflict, self awareness and self responsibility that stimulates an increase in internal control is an appropriate treatment.

CHAPTER ONE
STATEMENT OF PURPOSE

Introduction

Facilitation of stress mastery for high risk professionals is currently being addressed in a number of compartmentalized perspectives. For example, there is a proliferation of programs addressing meditation, biofeedback, physical fitness, and positive personal development. The concept of this proposed intervention is to approach the manifestations, modifiers, and management of stress from the broader base of total lifestyles.

Lifestyle plays a major role in the health of modern America, yet lifestyle is not a freestanding entity. It is the result of the influences of physiological, psychological, and environmental forces--many of which can be brought under our control. Well-being depends on the perception of both the positive and negative results of our lifestyle. Contemporary society contributes many of our detrimental stressors; refined foods, unrelenting schedules, and reorientation of family, occupational and personal responsibilities are but a few of the demanding goals and predictable lifestyle readjustments which may be required for well-being. It is the pursuit of the new-found goals and their attendant demands which set the stage for today's acute interpersonal and intrapersonal conflict. For example, according to the United States Surgeon General, stress is a contributing factor in 90% of all diseases.

Statement of the Problem

If the problem is the practiced lifestyle which leads to stress reactions, then there is a need to determine if there are factors useful in identifying high levels of stress, as well as methods useful in reducing this stress. There is a need to understand the multiple influences of the process of stress (Pearlin, Lieberman, Menaghan & Mullen, 1981) and then to intervene and influence the outcome of this process toward healthier lifestyles, a mastery of stress (Caplan, 1981), and an increased sense of well-being.

Nurses are representative of high risk professionals needing the intervention proposed by this study. Psychological and nursing literature validates the typical syndrome of stress being experienced by some members of this group. It has an insidious onset, but progresses to a full disease state--with predictable symptoms affecting all life dimensions--when left unattended. The extremely stressed victim is one who is eventually unable to withstand the cumulative pressures of work and the subsequent lifestyle, and succumbs physically, psychologically, socially, and/or spiritually to those pressures.

Purpose of the Study

This experimental study was concerned with identification, intervention, and evaluation of changes in stress-related variables among registered nurses. The study initially identified and assessed the three variables of recent life events (Holmes & Rahe, 1967), locus of control (Levenson, 1972; Rotter, 1966), and the level of projected conflict (Rotter & Rafferty, 1950). Intervention was in the form of group training focusing on holistic health, increasing personal awareness, and promoting stress mastery (Caplan, 1981). Following the training, the

study measured and evaluated changes in conflict and locus of control, after statistically equalizing the groups on the basis of prior readjustment to stress.

In this study, a training approach was utilized in which the facilitator(s) offered information in a non-evaluative format. The nurses were expected to learn more effective stress mastery skills and incorporate the information into their personal repertoire of behaviors. The rationale took an ethological rather than laboratory approach, and utilized the efficiency and efficacy of group training as a method of intervention. A basic assumption of this study was that the training approach for facilitating stress mastery will be the most beneficial to participants.

The goal of the study is the generation of self-awareness in the participants which will encourage them to address their own individual needs in order to master stress. The philosophical thrust of this study was succinctly expressed by Leah Moss, a baccalaureate nursing student at the University of North Florida in 1983. The study seeks to promote a holistic philosophy of personal potential by increasing personal awareness--for it is that awareness that exists beyond our experiences that represents the potential of the whole person.

Theoretical Constructs

The theoretical approach of this study was based on social learning (Phares, 1976; Rotter, 1954) and the concepts of holistic health (Kreiger, 1981; Selye, 1974; Ryan & Travis, 1981). The philosophical position of this paper was that the nature of man is a harmonious abstract complexity. To investigate man it has been necessary to destroy this essence of humanity by breaking it into isolated components.

Social learning and the holistic movement seek to integrate this essence in order to promote realization of man's full potential.

The lifestyles we develop and practice can immensely influence our ability to deal with stress. The manner in which our time is managed, occupational satisfaction, social and environmental conditions, the amount and type of drugs ingested (alcohol, nicotine, caffeine, illicit and prescribed substances), the amount and type of exercise and relaxation in which we engage, and the nutritional density of our diets all interact in our ability to adapt to, and master the stressors in our environment. Nested within the categories of physical and psychological concepts are how one thinks of oneself, how one communicates, one's personality, and the availability of support systems--all of which are key factors in mastering stress.

It is expected that the information yielded from this study will be of interest to nurses, counselors, educators, and mental health consultants. Nurses who participated received direct personal benefits of the study, as well as the novel opportunity to participate in learning experiences quite different from the traditional didactic methods. Because they have a responsibility to maintain in-depth knowledge relative to the patient population served, the participants felt there was a large pool of potential beneficiaries with whom they would be able to share this information. Counselors, educators, and mental health consultants might be interested because of recent activity in the holistic health movement, and generally expanding health horizons. These groups will be interested because effective, efficient methods of training are needed for the ever-increasing fund of knowledge that must be promulgated, as well as the increasing population in need of the specific stress-reducing skills.

Definition of Terms

For the purpose of this study, the following definitions of certain terms and concepts will be used:

Stress. Stress is the nonspecific response of the body to any demands made upon it, regardless of the desirability of the stimulus (Selye, 1974, p. 14).

Stressor. A stressor is considered to be any demand on one's mind or body. It may exist in environmental and/or social conditions; appear in interpersonal, intrapersonal, and/or physical situations; be positively or negatively perceived; be realistically or unrealistically evaluated. The only element these potential stressors have in common is their capability to initiate the stress reaction (Shaffer, 1982, p. 7).

Life event. Measured life events are those commonly occurring social events which are associated with some adaptive or coping behavior on the part of the individual involved. The emphasis is on change from the existing steady state, and not on psychological meaning, emotion, or desirability (Holmes & Rahe, 1967, p. 217).

Locus of control. Locus of control is the social learning concept referring to beliefs about the causal relationship between behavior and the subsequent occurrence of a reinforcement. External control refers to a belief that fate, luck, chance, or powerful others mediate the relationship. Internal control refers to the belief that occurrences of reinforcement are contingent upon one's own behavior (Gazda & Corsini, 1980, p. 456).

Powerful others. One measure of external locus of control is that of powerful others. It is a belief that predictable but powerful others exercise control in one's life (Levenson, 1972).

Chance. A second measure of externality is that of chance, which represents a belief that events are not predictable because control lies in the realm of fate, luck, or chance (Levenson, 1972).

Internality. An internal locus of control represents the extent to which individuals believe they have control over their own lives (Levenson, 1972).

Conflict. Conflict is a measurable state reflecting maladjustment related to multiple areas, including self-concept, interpersonal and intrapersonal relationships, social situations, family, control, and occupations (Rotter & Rafferty & Schachtitz, 1949; Rotter & Rafferty, 1950; Rotter & Lah, 1983).

Consultation. One process of sharing information with others is that of consultation. The consultant has both teaching and counseling skills, but the purpose is presentation of information in a non-supervisory, non-evaluative, and non-judgmental manner such that the consultee is free to accept or reject the information according to individual need. The goal of consultation is that the information accepted will be integrated, and will enhance personal and/or professional growth (Caplan, 1970).

Holism. Holism is a concept emphasizing personal responsibility for health care and recognizing the complexity and interdependence of the physical, psychological, social, and spiritual dimensions of the individual. The emphasis of holism is on lifestyle, well-being, and wellness (Yahn, 1979).

Mastery. Mastery is demonstrated in individual behavior that (a) results in reducing to tolerable limits physiological and psychological manifestations of arousal resulting from stressors, and (b) mobilizes the individual's internal and external resources and develops new capabilities in him that lead to changing the environment or his relation to it, so that threat is reduced and satisfactory alternatives are found (Caplan, 1981, p. 413).

Research Questions

Assuming that nurses are representative of a population of professionals at high-risk for stress, and that they need to reduce that stress in order to lead more effective and healthier lives, it becomes necessary to find effective, efficient, and economical methods of assisting them to reduce this stress. As the nature of this study is exploratory, the questions were general (Armstrong, 1974).

Using Rotter and Rafferty's (1950) Incomplete Sentences Blank (RISB) as a measure of projected adjustment/conflict, do respondents' measured adjustment scores correlate to training; and is this influence on measured adjustment predicated on perception of locus of control or reported life events?

Using Levenson's (1972) tridimensional measure of Internality, Powerful Others, and Chance Control (I/P/C), can respondents' perception of locus of control be influenced by training? Is there a relationship in perceptual change due to reported life events and/or measured adjustment?

Using an adaptation of the Holmes and Rahe (1967) Social Readjustment Rating Scale (SRRS), are changes in locus of control and/or measured adjustment biased by residual stress? Are these reported life events mediated as a function of locus of control?

Overview of Remainder of the Study

The following portions of this study briefly review the concept of social learning and the philosophy of holistic health. In the context of lifestyles, an overview of the process of stress, and its manifestations, mediators, and modifiers is presented. A more detailed review of the literature related to the measurements considers the

rationale for their use. Studies which are similar in nature, focus or results of this study are reviewed.

The methodology section addressed the selection of subjects, definition of the population and the treatment, and reviewed the assessment tools. The limitations of the study and the threats to validity were discussed. The research hypotheses were proposed and statistical treatments delineated.

CHAPTER TWO
REVIEW OF THE RELATED LITERATURE

Introduction

The review of the literature dealt with the research related to the identification, intervention, and evaluation of stress-related variables, with a focus on nurses as representatives of a high-risk population. The literature was briefly reviewed in the context of social learning and the philosophy of holism, followed by an overview of the process of stress and its manifestations, mediators and modifiers, presented in the context of lifestyles. A more detailed review of the literature was done on the three measurements, including life events, locus of control, and conflict. Studies which were similar in nature, focus or population of this proposal were reviewed.

Overview

This study seeks to facilitate the mastery of stress--its manifestations, modifiers, and management--through increased personal awareness and lifestyle modification. Significant variables in the management and perception of the process of stress will be considered. Training modules have been developed utilizing a holistic health approach and social learning. Both of the approaches encompass the complexity of each individual and emphasize personal responsibility in the establishment of well-being. These training sessions will be directed at developing self-awareness through cognitive and affective approaches, and

measurements will be made of changes in locus of control and conflict as a result of the training process. Measures of existing stress will be taken pretreatment.

The topics of the training sessions will include measurement and significance of life events, physiological and behavioral manifestations and modifiers of stress, personality types and preferences, communication styles and skills, adjustment and self-concept, habit control and time management, social support systems and autonomy and control. Specific application of the training information will be directed at registered nurses (Berg, 1980; Maslach, 1976), so the principles of adult learning will be utilized in developing effective, interesting modes of training and evaluation (Boyles, 1981; Cropley & Dave, 1978; Draves, 1976; Ingram, 1979; Kidd, 1959) compatible with both the concept of andragogy (Daly, 1980; Knowles, 1950) and horizontal and vertical lifelong learning (Jessup, 1969).

Holism

Sister Callista Roy (1971) noted that any concept of caregiving begins with the recipient of that care--man.* This study considers man to be a whole individual, inextricably bound to both his internal and external physical and phenomenological (Combs & Snygg, 1949) world. Intrapersonally--intelligence, personality, and physiology are interwoven and are likewise blended into the social, cultural, and environmental systems. Few disciplines have the privilege (or the problem) of isolating any of these factors into a laboratory-controlled situation.

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*any human being regardless of sex or age; a member of the human race; a person (The American Heritage Dictionary of the English Language, 1976).

The behavioral and medical sciences, in practice, must necessarily take an ethological approach to man (Oleck & Yoder, 1981; Winstead-Fry, 1980).

From the Greek holos, meaning entire or whole (person), "holism" was first used by Jan Smuts in 1926, in a theory of relation of parts to the whole. During the decade of the seventies, the concept was used for the resurrection of health care of the whole mind-body-spirit-personality, and departure from the Descartian reductionist view held since the 17th century (Shealy, 1981). With emphasis on lifestyle, well-being and wellness, holism is a health care that has gained momentum. The concepts are simple and clear, emphasizing personal responsibility for health care. The integration of mind-body-spirit is positive wellness, and involves vitality, joy, physical fitness, no health-impairing habits, meaningful and productive work, quality interpersonal and intrapersonal relationships, and minimal tension and stress (Yahn, 1979, p. 2202-2203).

Others support the resurgence of holistic health. Although identified under different rubrics, the recognition of man as a multidimensional being in an increasingly complex environment is returning to the health care scene (Allen, 1977; Blattner, 1981; Cohen, 1978; Flynn, 1980; Martin & Prange, 1962; Mazzati, 1977; Robinson, 1974: Krieger, 1981; Seiler & Messina, 1979).

Social Learning

Social learning offers a way of looking at the world and viewing events from many dimensions (Bandura & Walters, 1963). The emphasis on learning conveys the assumption that most human learning takes place in meaningful environments and is acquired through social interaction with

others. One's environment is endowed with meaning and significance as a result of past experiences, but is lived in the present. Rotter (1954, cited in Gazda & Corsini, 1980) commented:

> it is a social learning theory because it stresses the fact that the major or basic modes of behaving are learned in social situations and are inextricably fused with needs requiring for their satisfaction the mediation of other persons. (p. 406)

A Society Under Stress

Dr. Roy Menninger estimated that 80% of the complains seen by physicians are psychosomatic reactions to problems of living (1978). Later reports place this number at nearly 90%. As people try to cope with these problems of living they often end up eating poorly, smoking, using alcohol or other drugs, and failing to exercise properly. Stress--problems known to be related to lifestyles--is now known to be either a direct or indirect major contributor to coronary heart disease, cancer, lung ailments, accident injuries, cirrhosis of the liver, and suicide--six of the leading causes of death in the United States (Brenner, 1973, 1976; Friedman & Rosenmann, 1974). "In many ways, modern America has become a much less healthful place to live" (Menninger, 1978, p. 80). "Our mode of life itself, the way we live, is emerging as today's principal cause of illness" (Rosch, in Wallis, 1983). "Stress is now a chronic, relentless, psychosocial situation" (Elkes, in Wallis, 1983), p. 48).

Houghton (1982) reports that the apparent adjustments necessary in lifestyles and priorities necessary to maintain mental health include meaningful work, self-discipline, realistic goal setting, good rest and exercise, supportive family and friends, and social skills. Many of

these same lifestyle adjustments, necessary to successfully adapt in a stressful society, and to intervene in the syndrome of stress, will be addressed in the training sessions of this research.

The Components of Stress and its Management

Stress as a Multidimensional Process

"Stress" is a generic term that subsumes a variety of manifestations (Pearlin, Lieberman, Managham & Mullen, 1981), a phenomenon involving all aspects of "multidimensional man" (Frain & Valija, 1979), and rather than a stimulus or response, the interaction of the individual to internal and external processes reaching threshold levels which strain its physiological and psychological integrative capacities close to, or beyond their limits (adapted from Basowitz, Persky, Korchin, & Grinker, 1955, in Cleland, 1965, p. 293).

There are several useful ways of conceptualizing stress. Acute stress is that which occurs quickly, but has the potential for relatively rapid resolution. Chronic stress is more insidious, and is usually an accumulation of smaller, unresolved stressors (Brenner, 1973, 1976; Dohrenwend & Dohrenwend, 1979; Holmes & Rahe, 1967; Lazarus, 1966, 1981; Pearlin et al., 1981; Selye, 1974). Specific stress is an individually-defined vulnerability. Sources of stress may be explained as threats to (a) the physical self, (b) the psychological self, (c) social relationships, or (3) one's environment (NTL, 1978). Both sources and types of stress as cited by the above authors are frequently identified as life events, and are differentiated according to magnitude, desirability, scheduledness, and controllability.

Pearlin, Lieberman, Menaghan and Mullen further delineate not only the sources, but also the mediators and manifestations of stress, which are interconnected to form a process of stress. Mediators are those behavioral, perceptual, and cognitive methods of coping and adapting that persons use to alter or mediate the effects of stress, while the manifestations of stress range from the microbial and covert to the macro-organismic and overt physical, emotional, and behavioral reactions (1981, p. 340-342). It is essential to look at the entire complex interacting process of stress in order to begin understanding what can be done about it.

Physical Mediators and Modifiers of Stress

Exercise can be a source of mediator of stress. A sound exercise program can enhance self-esteem, diminish depression, and renew or replenish energy. It is estimated that only 15% of American adults practice sufficient aerobic exercise to maintain healthy levels of cardiovascular sufficiency (Shealy, 1981). Exercise is an important factor in the treatment of hypertension (Anderson, 1978; Jasmin, Hill & Smith, 1981; Pelletier, 1977; Selye, 1974), has been noted as beneficial for the treatment of depression (Frain & Valija, 1979), and a replacement for addictions (Glasser, 1965).

Exercise, abusive exercise may cause joint and muscle damage, while ineffective exercise does little to enhance cardiovascular activity. An effective aerobic exercise program facilitates cardiovascular activity, can help maintain optimal weight, and increases energy level (Bowerman & Harris, 1967; Cooper, 1970; Cooper & Cooper, 1972; DeVries, 1974).

In King, Cohenour, Corruccini and Schneeman (1978) an in-depth review of the "Basic Four" food groups found that if this long-standing

nutritional standard was followed as suggested, approximately 30% of the minimum established daily nutritional requirements were unmet. The American Dietetic Association has developed the "Modified Basic Four" which does meet the minimal nutritional requirements and is easy to teach and integrate (Peterkin, Kerr & Shore, 1978; Sherman, Lewis & Guthrie, 1978). Nutritional literacy (Sherman et al., 1978) is a learned skill which is relatively easy to achieve and enhances optimum stress capacity. Good nutrition consists of eating a wide variety of non-refined, whole, unaltered foods (Hall, 1981; Cheraskin, Ringsdorf & Brecker, 1974). Nutritional ignorance results in poor dietary habits which are linked to many physiological illnesses, including hypertension and gastrointestinal disturbances. Obesity places excessive burdens on the heart, muscles, bones and joints; its factors in self-concept and interpersonal relationships cannot be minimized (Abrahamson & Pezer, 1971; Airola, 1971; Baggs, 1964; Dufty, 1975; Fredericks, 1969; Lindner, 1973; Miller, 1980; Schafer, 1979). Nutrition, like exercise, is cited as primary to the treatment of cardiovascular diseases (Baggs, 1964; Cheraskin, et. al., 1974; Pritken, 1979; Shealy, 1981; Taylor & Fortmann, 1983), gastrointestinal diseases (Lindner, 1973), as well as chronic and transitory depression (Abrahamson & Pezet, 1971; Dufty, 1975; Fredericks, 1969).

Approaches to managing stress (change) are as multiple and varied as the individual responses and indications. The most basic and important skill is developing the ability to relax. It is not possible to be tense and relaxed at the same time (Wolpe, 1958). Relaxation is a very specific response of the body--one that <u>can</u> be elicited at will. Relaxation is merely a normal response of the body used to defend itself against conditions of continuing stress (Benson, 1975). It is the

opposite of the alarm state (Donnelly, 1980b; Selye, 1974). Relaxation lowers blood pressure (Pelletier, 1977, 1978), relieves backache (Kraus, 1965; Shealy, 1981), and decreases muscular tension (Madders, 1979; Wallis, Galvin & Thompson, 1983). Relaxation is achieved in many ways, including meditation (Sethi, 1980), various styles of self-hypnosis and biofeedback (Belar, 1980; Donnelly, 1980a; Hartje, 1976), autogenic training (Schutz, in Luthe, 1969), progressive muscle relaxation (Jacobsen, 1928, in Donnelly, 1980b; Trygstad, 1980), massage and touch (Krieger, 1981), yoga (Diskin, 1978; Rozman, 1975), and exercise (Cooper, 1970; Cooper & Cooper, 1972; DeVries, 1974).

The U. S. Department of HEW publishes Plain Talk--The Art of Relaxation, in which it reminds the public that relaxation takes on many forms, including activities like education, exercise, creativity, reading, meditative-mental processes, and an old-fashioned warm bath. It emphasizes that learning to relax takes commitment and practice, and that

> finding effective techniques for personal relaxation is not merely a pastime for the idle rich. It is essential for everyone's physical and mental well-being. (Kopolow & Fried, 1978, p. 3)

Behavioral Manifestations, Moderators, and Mediators of Stress

Among the self-destructive habits in which Americans engage, the use of tobacco affects more people than any other. There are no "safe" cigarettes. The 1964 and 1981 Surgeon General's report indicts all cigarettes as direct causes of cancer, emphysema, and coronary disease. Tobacco and its components cause vasoconstriction and are linked with hypertension, headaches, and sinus condition (Taylor & Fortmann, 1983); delay healing processes (Lindner, 1973); were linked with approximately

75% of duodenal ulcer surgery over two decades ago (Doll, 1958, in Lindner, 1973, p. 62) and have been noted as a significant factor in a ten-year longitudinal study among 90% of post-surgical back pain sufferers (Shealy, 1981, p. 196-197).

One hundred million Americans drink, and an estimated ten million are alcoholics. Twenty-four percent of the youth between ages 12 and 17 use alcohol, and one-third of all suicides are alcohol-related (Desmond, 1982, p. 12-13). Sixty-nine percent of the surgical patients treated for peptic ulcer consume alcohol (Lindner, 1973, p. 62-63).

According to Wallis et al. (1983), it is a sign of the times that the three best selling drugs in this country are Tagamet, Inderal, and Valium--treatments for ulcers, high blood pressure, and anxiety. The number of people using marijuana, cocaine, amphetamines, and a variety of hallucinogens is not accurately known, but numbers in the high millions, and encompasses all ages and ethnic groups, socioeconomic groups, and both sexes.

Psychological and Social Manifestations, Moderators, and Mediators of Stress

Jobs are frequently a source of life stress. Studies of large samples--numbering in the thousands--of military and industrial workers (LaRocca, House & French, 1980), as well as smaller samples of nurses (Michaels, 1971), post-facto research (Brenner, 1973, 1976; Wallis, 1983), and surveys (Gentry, Foster & Froehling, 1972) all have contributed to the general fund of knowledge of the variables that are related to job stress. These researchers as well as many others make note of the interaction of social support systems, self-esteem, and physical and mental health (Cohen & Orlinsky, 1977; Thoits, 1982; Turner, 1981, Shealy, 1981).

One study found that nurses who had been in their positions for over five years had significantly higher job satisfaction, lower role ambiguity, and a more internal locus of control (Chariff, Duke, Level & Smith, 1980).

Communication skills and styles are additional methods of understanding, predicting and influencing change. Whether the approach is Transactional Analysis (Berne, 1972; Harris, 1967; James & Jongeward, 1971, Stein, 1967), Assertiveness (Alberti & Emmons, 1970, 1975; Bloom, Cogburn & Pearlman, 1976; Jakubowski & Lange, 1977), Neurolinguistic Programming (Bandler, 1978; Piaget, 1980), Rational Emotive Therapy (Ellis & Harper, 1975), or interpersonal communication and understanding skills (Patterson, 1974; Rogers, 1942, 1951, 1961; Satir, 1972), the more we know about ourselves and others, and how and why we communicate, the greater the chances of minimizing stressful situations.

The ability to communicate may not be taken for granted; it is a complex system, learned in a cultural setting, and operates on several levels at one time (Murray & Zentner, 1979). Communication may be verbal or non-verbal--the latter usually more honest and revealing (Satir, 1972). Communication skills and understanding and appreciating individual differences are important in job satisfaction, as well as family and interpersonal relationships (Myers, 1962)--areas strongly affected when stress is out of control. Ryan and Travis (1981) support the concept that learning assertive skills can be a tool for developing self-concept. Communication skills <u>can</u> be taught (Carkhuff & Truax, 1965; Flynn, 1975; Kegan & Schauble, 1976; Patterson, 1974). Skills that are particularly useful in communication include self-disclosure, feedback, listening, assertiveness, transactional analysis, and rational thinking.

That nurses need to learn to communicate more effectively may be noted in a 1982 study by Johnston, which examined whether other patients know more about surgical patients' worries than the nursing staff. Using 20 female patients (24 to 65 years old) and 17 nurses, each patient was teamed with a nurse and a colleague patient in completing an inventory describing patient worries. Results showed that the other patients were more accurate than the nurses overall, and confirmed the results of a previous study in which the nurses over-estimated the number of patient worries.

The development and use of support systems for mediating stress are advocated by many (Cobb, 1976; Donnelly, 1980d; Goodwin, 1981; Michaels, 1971; Murphy, 1981; Norbeck, 1982). The lack of support systems is frequently noted in the competitive corporate systems (Forbes, 1979; Schwartz, 1980; Scrivner, 1981) and in the helping professions (Maslach, 1976; Podboy, 1980).

Man is a social being and needs others to fulfill his needs for belongingness (Maslow, 1954). Although loneliness (not belonging) per se is unavoidable, levels of loneliness may be dealt with as situational or transient, rather than chronic (Cox, 1983; Moustakas, 1961). Those who do belong, i.e., live with others, live significantly longer than those who live alone (Lynch, 1977).

The most popular method of researching social support is that of analyzing collected actuarial health data (Kessler, 1979; LaRocca et al., 1980; Nuckolls, Cassel & Kaplan, 1972; Thoits, 1982; Turner, 1981; Williams, Ware & Donald, 1981). The volume of research on social support is extensive, and the most investigated question is whether support systems are a construct in and of themselves, or whether they

are simply a mediating factor with other things such as life events, mental illness, and/or self-concept. With sample size in the thousands (usually from industry and the military), it is acceptable for this study that social support exists as a concept, and is necessary for optimum management of stress. Repeatedly, researchers call for more research and more explicit theories. LaRocca, House & French (1981) state that it is

> our view that it is simply time to stop "proving" that social support is related to stress and strain, and begin to consider the mediating factors or mechanisms through which social support functions. (p. 214)

This is in accord with the thought that strengthening social supports is more immediately practical than attempting to reduce the occurrence of the stressor situations (Kaplan, Cassel & Gore, 1977).

Personality has been studied in relation to career choices (Bolles, 1972; Holland, 1966; Keirsey & Bates, 1978; McCaulley, 1977; Super, 1957), family interactions and personal development (Erikson, 1950; Horney, 1942, 1945, 1950; Jung, 1964), need fulfillment and motivation (Maslow, 1954), learning styles (Jessup, 1969). Personality factors such as flexibility and hopefulness have been reported as helpful in coping with stress (Wallis, et. al., 1983, p. 50). Kobasa (1979, in Kobasa, Maddi & Courington, 1981) proposed the <u>hardy personality</u>:

> Hardy persons have considerable curiosity and tend to find their experiences interesting and meaningful. Further, they believe they can be influential in what they imagine, say and do. At the same time, they expect change to be the norm, and regard it as an important stimulus to development. (p. 368)

Control (as opposed to powerlessness), challenge (as opposed to threat), and commitment (as opposed to alienation) are considered to be the three components of hardiness. Personality factors are considered to have a time-unlimited effect on stressful events (Kobasa et al., 1981).

Personality patterns in nursing have been studied extensively for two decades. The results are inconsistent. When using the EPPS, for instance, the variables that are consistent are that nursing students are nurturant, deferent, and persistent, but are neither autonomous nor dominant (Cohen, 1981). The small samples, usually of those who have remained in a nursing program, must be noted. Levitt (in Cohen, 1981, p. 93) does suggest that the data indicate a preclinical personality pattern for nursing students that emphasizes feminine needs, while assertiveness needs are played down.

The focus of nursing personality research is usually entry-level motivations or the choice of clinical specialty at the graduate or post-graduate level. Bernstein, Turrell and Dana (1965) utilized projective tests in an investigation of the motivation of freshman and sophomore nurses. Studies of clinical specialization found highly significant differences between nurses in different practice areas--psychiatry, medical/surgical, maternal/child, and public health (Lukens, 1965; Miller, 1965).

More recent studies have been conducted on nurses utilizing the Myers-Briggs Type Indicator and address issues involving nursing school dropout, success on licensing examinations, and preventing burnout in Intensive Care Units (McCaulley, 1967, 1977; Williams, 1975). There are significant trends within nursing according to personality preferences which can be demonstrated by educational level (ADN, n=1,345; Diploma, n=3,171; BSN, n=2,074; MSN, n=566), as well as by specialty.

Stress Components Summarized

By way of summary, Shealy (1981) states:

> Further improvements in American health will more likely come from changing self-destructive habits--cigarette smoking, being obese, alcoholism, lack of exercise, highly refined and fiber/mineral/vitamin deficient diets, and a stressful lifestyle. (p. 182)

Added to this list can be the manner in which we manage time (Lakein, 1973), occupational dissatisfactions, overcrowding, noise, dangerous driving habits, the use and abuse of drugs, excessive television, and industrial and chemical pollution.

Stress Theory

Hans Selye, the "father" of stress, defines it in terms of the General Adaptation Syndrome (G.A.S.). He states that stress is the "non-specific response of the body to any demand (change) made upon it . . . (and) it is immaterial whether the agent or situation we face is pleasant or unpleasant" (Selye, 1974, p. 14).

Until quite recently, the major stresses faced by mankind were primarily physical: food, shelter, and safety. Technology now controls these factors, and the stressors presently faced are more psychological and social in nature. The human body responds to these modern stressors in archaic ways. Physiologically, preparation is made to run or fight--even when the stress is unseen or unrecognized. In this fight or flight response, bodies enter the automatic patterns that were formerly protective mechanisms, but now frequently serve only to disrupt our homeostatic balance. Selye's stages of the G.A.S. include the alarm, resistance and exhaustion phases, each with predictable, measurable physiological, individualistic symptomatology (Selye, 1974, 1976). What Selye called "diseases of adaptation" are most likely to

occur in the weakest link of the body. The body's area/organ of least resistance--vulnerable either by genetic predisposition, prior injury, or environmental learning--breaks down (Jasmin, Hill & Smith, 1981; Kobasa, Meddi & Courington, 1981; Selye, 1974).

Individual Reaction to Stress

Many authorities indicate that illness and stress are highly related. Although stress (change) is universal, responses are highly individual. The effects of stress on a particular individual are determined by multiple factors. Personality (Aiken & McQuade, 1978; Pelletier, 1977; Friedman & Rosenman, 1974), attitudes and anxiety level (Spielberger, 1979), genetic predisposition (Kobasa, 1981), learning (Seligmann, 1964), and sense of control (Lefcourt, 1981; Levensen, 1972; Nowicki & Strickland, 1973; Rotter, 1966) are but a few of the complex interplaying factors.

Moderate stress aids most people to maintain optimum performance levels (Rosen & Patterson, 1980; Selye, 1974). The key is individually defining and identifying that optimum level, and further recognizing the indications of excessive stress (Parrino, 1979; Sharpe & Lewis, 1977; Yorde & Witmer, 1979).

While each person's ability to effectively deal with his or her perception of stress is different, each person has an individual maximum capacity to tolerate stress. However, when chronic stress forces endocrine and nervous systems into continuous operation, these systems wear down and provide less effective protection, leaving bodies more susceptible to disease. Diseases of the cardiovascular, respiratory, gastrointestinal, genitourinary, nervous, and autoimmune systems have

all been linked to stress (Anderson, 1978; Benson, 1975; Friedman & Rosenman, 1974; Lindner, 1973; Pelletier, 1977; Selye, 1974).

Specific Measures and Procedures

This study examined the relationship of life events, locus of control, and conflict among registered nurses. Information based on behavioral, physical, and psychological manifestations and modifiers of stress was integrated into a training program and formed the basis for the intervention.

Life Events

The probable originator of life events work was the Swiss-American Professor of Psychiatry, Adolph Meyer. His "common sense psychiatry" popularized the "life chart" approach to recording biographical and medical information to allow clinicians to investigate temporal relationships between these categories of events (Rahe, 1978). Two American researchers standardized and rated the most popular life events research tool. Previous studies by Holmes and Rahe (1967) established that

> a cluster of social events requiring change in life adjustments is significantly associated with the time of illness onset . . . and that these events achieve etiological significance as a necessary, but not sufficient cause of illness and accounts in part for the time of onset of disease. (Holmes & Rahe, 1967, p. 213)

Specifically, in an attempt to correlate the amount of change (stress) experienced by individuals, Holmes and Rahe developed the Social Readjustment Rating Scale. It was found that in general, those people experiencing less than 200 "life-changing units" in a year

adjusted adequately to that amount of change. Increased amounts of change resulted in statistically significant increased incidents of physical illness: 200-300 = 37%; 300-400 = 50%; and above 400 = 81% greater chance of developing a physical illness within the next year, as directly resulting from the physiological reaction to that amount of stress. The concepts of the Social Readjustment Rating Scale have become widely accepted as predisposing factors to illness, and the recognition of recent life change is included in the DSM-III. A small but statistically significant and reliable correlation was found between the occurrence of major events and problems with physical health within the next two years. The high degree of consensus suggests a universal agreement between groups and among individuals about the significance of those life events under study that transcends differences in age, sex, marital status, education, social class, generation American, religion, and race (Holmes & Rahe, 1967, p. 217).

Holmes and Rahe define social readjustment as the amount and duration of change in one's accustomed pattern of life resulting from various life events. As defined, social readjustment measures the intensity and length of time necessary to accommodate to a life event, regardless of the desirability of this event (1967, p. 312). It includes social and interpersonal transactions and events in the family constellation, marriage, occupation, economics, residence, group and peer relationships, education, religion, recreation, and health.

Judging by the volume of research generated, the heuristic value of life events research is clearly demonstrated. Life event weighting schemes have been developed and compare extensively. Ross and Mirowsky (1979) compared 23 methods: additive, multiplicative, tallied,

ranked, rated, and paired. Results indicate that the most predictive method is adding up undesirable life events, that Holmes and Rahe's original instrument is as effective as newly developed ones, and that undesirability is a better predictor than simple change. Dohrenwend and Dohrenwend (1979) suggest that life events weights are useful research tools, while Lorimer, Justice, McBee and Weinman (1979) found high correlations of predictability between counted events, rated events, and weighted events.

In a five-year study of 5,000 male and female heads of households, Hagen (1983) reports a study by Cohen (1978) showing that one life event, loss of job, leads to negative self-concept, and this self-concept is not necessarily restored when re-employment occurs. This study was concerned with lengthy unemployment. Brenner (1973, 1976) found statistically significant relationships between unemployment and suicide, state mental hospital and prison initial admissions, mortality from chirrosis of the liver and cardiovascular renal disease, and total mortality. Other studies correlate the life event of job loss with homicide, spouse abuse, and child abuse (in Hagen, 1983). First year post-unemployment has higher incidents of suicides and homicides, while two and three years post-unemployment increases in cardiovascular disease, chronic diseases, and mortality are noted. The studies noted by Hagen further identify the availability and strength of a social support system to be an important mediator in the effects of unemployment. Social support will be a topic addressed in the training, although not measured in the study.

In an editorial statement of "life change measurement clarification," Rahe states

> Despite the difficulties of simply counting recent life change events, many studies are currently being conducted trying to determine if recent life changes are "positive" or "negative," "controlled" or "uncontrolled," "anticipated" or "unanticipated," "desirable" or "undesirable," and so on. . . We've found these "qualities of life change events to be evaluated quite differently between individuals, depending on the person's particular perceptions of the event, their psychological defenses, coping skills. . . . For a clean estimate of environmental stress, vice subjective stress, it is hard to improve upon a simple counting of recent life changes." (1978, p. 97)

The conclusion is that the significance of life events is well documented as a probable cause of stress (Kanner, Coyne, Schaffer & Lazarus, 1981; Liem & Liem, 1976). There are several mediators of the effect of life events, including social support systems and locus of control, as well as the desirability of the event. The Social Readjustment Rating Scale (SRRS) is a well standardized instrument, recognized among researchers as among the most reliable and was selected for use in this study for its additional use as a teaching and research tool.

Locus of Control

Philosophy had uncontested claim to the study of humans for centuries. That man is ultimately responsible for his own destiny began as a philosophical abstraction, and later was reaction against the deterministic stance of Freudian analysis. An internalized locus of control may be identified as autonomy, a sense of self rule denoting independent choice regardless of outside control, a sense of having the right or power to rule oneself.

That man is ultimately responsible for his own actions is a cornerstone of existentialism. Frankl (1975) states that " . . . being human can be described in terms of being responsible . . . the self that

becomes conscious of itself . . . it meets itself" (p. 24). "No knowledge can come to know itself, to judge itself, without rising above itself" (p. 62). It is necessary for one to increase awareness beyond experience in order to be able to accept, and eventually desire, self responsibility.

Bakan (1966) notes that the positive duality of human existence is a sense of internal control with an outward direction for the common good.

While philosophy and theology have long discoursed the question of man's responsibility for himself, psychology--specifically sociological learning theories--have investigated and quantified the various loci of control. Autonomy is considered as being a state of emotional independence in which thoughts and feelings are not merely imitation of what others require us to think and feel. Acquiring skills for choosing situations of self expression and in controlling the situation is the basis for a perceived internal locus of control. Autonomy can be described as a growth trend where one's contemporary self structure becomes the determining influence in the selection of one's choices.

Julian Rotter's Social Learning Theory specifically addresses the dimension of locus of control. One school of thought notes that locus of control may be considered as a personality variable taking a different form in individuals. Other researchers and theorists debate the existence of locus of control as a dynamic personality variable vs. a static personality characteristic.

This study was interested in whether or not perception of locus of control could be altered. The rationale was that many behaviors depend on the amount of personal control the individual believes he has. Decaprio (1974) indicates that one's total orientation to life is influenced by the variable of locus of control, and that one should attempt to acquire a greater sense of control over his circumstances.

Seligmann (1975) built a strong case for lack of perceived control as being a major determinant of depression. His construct of learned helplessness also holds promise that more adaptive attitudes can be learned. "Powerlessness" was a forerunner of externality in Rotter's original monograph (Seeman, 1959, in Rotter, 1966). Phares (1976) states that "to enhance individuals' capacity to cope with the world successfully one must influence their generalized expectancy of control" (p. 107).

A substantial body of data regarding the validity of the construct of locus of control has been accumulated. "Factorial analyses indicate that there seems to be a general factor which accounts for most of the variance. Additional analyses have further subdivided the variable into factors of belief in a difficult world, an unjust world, an unpredictable world, and a politically unresponsive world . . . comparable scales have been developed for various groups . . . [and] from a psychometric point of view, all the I/E inventories have been carefully constructed and evaluated" (Anastasi, 1968, p. 556-557). She states

> Internal control refers to the individual's perception of an event as contingent upon his own behavior or his own relative permanent characteristics. External control . . . indicates that a positive or negative reinforcement following some action of the individual is perceived as not entirely contingent upon his own actions, but the result of chance, fate, or luck; or it may be perceived as under the control of powerful others and unpredictable because of the complexity of forces surrounding the individual. (p. 555-556)

The internal-external concept has led to a veritable flood of research, making it the most heavily investigated personality variable in recent years (Phares, in Gazda & Corsini, 1980, p. 440).

> What is important about this variable . . . is in its connection to the sociological idea of power and its converse, alienation. Locus of control is one of the few variables in social science that may be shown to have a consistent relationship which ties research across levels of analysis. (Rappaport, 1977, p. 101)

The best known instrument for measuring internal-external locus of control is that developed by Rotter (1966). Developed within the context of social-learning theory, Rotter states, "The effect of reinforcement following some behavior . . . is not a simple stamping-in process, but depends upon whether or not the person perceives a causal relationship between his own behavior and the reward" (1966, p. 1). Rotter's original scale was the first theoretically based, systematically studied measurement of the alienation experienced by individuals who feel unable to control their own destiny. Locus of control measures have been developed for children and adults and college students (Nowicki, 1973(b), Nowicki & Duke, 1974; Nowicki & Strickland, 1973). They have been used in extensive cross-cultural studies (Lindbloom & Faw, 1982), and in studies with individuals as well as groups (Foulds, 1976). Some researchers have found a skewed distribution, with a trend toward internality for most subjects (average 8-11) when using the typical, unidimensional locus of control measures (Drummond, 1983). Later tests developed the three dimensions of control, internality, powerful others, and chance (Levenson, 1972).

Because it offers the advantages of a Likert scale, immodifiable personalization of questions, and three separate factor analytically sound scales, the Internality/Powerful Others/Chance Scale by Levenson (1972) is selected for use in this study.

Conflict

For the purpose of this study, conflict represented the individual psychological manifestations of a stressful lifestyle. Conflict is present and experienced by both groups and individuals when goals and methods are incompatible, when engaged in interpersonal or intrapersonal struggle and disharmony, and when experiencing confusion over roles, expectations and/or behaviors. Conflict may originate from a variety of sources, but is usually manifested by some degree of maladjustment. Conflict has an inverse relationship to self-awareness and a direct relationship to self-concept. Intra-psychic conflict frequently emerges in a disturbed concept of self. This distortion may be temporary or long term. Resolution of disturbed self-concept and conflict may be approached from several avenues.

The concept of self arises from many sources. It is the internalization of perceptions of how we are perceived by others. It is the synthesis (or disintegration) of the real and ideal selves with that perceived self (Horney, 1942). Social support is related to psychological well-being--the feelings of being loved, valued, and able to count on others gives us a concept of our value to others, and subsequently our self value (Turner, 1981). Stoddard (1983) discussed the dynamics of negative self-concept and the processes of building a positive self-concept. The consequences of a negative self-concept can be devastating, making it difficult to assert oneself, intensifying self-consciousness, and interfering with cognitive processes. Negative self-concept is frequently accompanied by feelings of isolation, depression, loneliness, inadequacy, and failure. If these negative feelings serve as motivators to overcome obstacles in order to escape that psychological

pain, they are beneficial stimulators. If, however, in order to avoid that pain one withdraws and becomes less risk taking, the downward spiral of negative self-concept begins. "Maneuvering to maintain a belief in yourself is a dynamic process" (Stoddard, 1983). Jourard encouraged nurses to be aware of themselves in order to be aware of others (1964).

Branden (1969) states that there is no value judgment more important to man--no factor more decisive in his psychological development and motivation--than the estimate he passes on himself (p. 109). The degree of his self-esteem (or lack of it) has a profound impact on every key aspect of his life (Branden, 1971, p. x). A positive self-concept, the realistic view and acceptance of both positive and negative aspects of one's personality, enhances positive feelings toward others. Carl Rogers (1951) and Roberto Assagoli (1965) both urge the unconditional positive regard for self and others as a way to higher living. Gordon Allport (1955) sees present awareness of oneself as a major attribute of maturity. In becoming more self aware (releasing both buried problems and greatness), the unrealized potential for growth, achievement, and fulfillment that has been previously undiscovered is released. "The individual plays a profoundly important role in determining the course of his own psychological development and in strengthening or destroying his self-esteem" (Branden, 1971, p. x).

It is proposed that increased awareness from several sources will aid in diminishing conflict. Augsburger (1981) indicates that we can experience awareness through many modes: thoughts, perceptions, feelings, behaviors, or intentions. The only difference in efficacy will be determined by the individual's most effective preference

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In constructing a method for enhancing self-awareness, Krikorian and Paulanka (1982) structured a group learning experience for psychiatric nursing students. The rationale for such a learning experience was that

> since the therapeutic use of self frequently is identified as the nurse's major tool in the nurse-patient relationship, it seems important to understand the interrelationship between self-development and awareness. . . . (p. 21)

Their findings indicate that behavioral changes do occur when increased self-awareness is experienced.

A specific measurement of stress-related conflict is difficult to find. Self-concept tools are too limiting for this study; traditional projective techniques are too broad and focus on pathology. Projective tests have been used routinely with nurses (Lukens, 1965; Miller, 1965). Bernstein, Turrell and Dana (1965) found that with the examiner present, the expression of strongly emotional material is inhibited, while with the examiner absent, there is " . . . greater involvement on the part of the subject" (p. 225).

The Rotter Incomplete Sentence Blank (RISB) was originally developed to obtain an overall score for the degree of conflict being experienced by an individual. It deals with projected conflict or adjustment in family, social, sexual, health, vocational, institutional, educational, interpersonal, and intrapersonal areas. It also deals with past events and control. The RISB can be administered in groups (examiner absent) and is a projective instrument that can be objectively scored.

In re-evaluation of the RISB over time, Lah and Rotter (1981) found that scoring and rescoring reliabilities tested over a 25-year period substantiate that the RISB manual is still adequate. Means have been

updated to 134.8 (SD = 18.7) for females and 133.8 (SD = 20.0) for males. Other studies found that scorers could be trained completely from the manual, and that those reliabilities were in the .90's.

In discussion with Rotter (1983) regarding the appropriateness of the RISB for use in this study, he suggested that the validity and reliability studies by Churchill and Crandall (1955) provided adequate answers to the test-retest questions raised by Cofer and Schofield in 1953, and were especially appropriate for this study. The control group was educated mothers, ages 35-45. Believed to have relatively stable lives, the test-retest reliability for the mother group was .70, while the same reliability for college women ranged from .44 to .54. These correlations indicate that the RISB measures more than momentary moods, but less than a stable state. Rotter stated that the use of the RISB would be appropriate for measuring the dynamic change in conflict in nurses using a pre-test, post-test design with a control group.

If conflict is influenced by self-awareness and self-concept, and these can be enhanced by group training, then the measurement of conflict is an index of progress in stress mastery. Due to the wide range of areas tapped by the Rotter Incomplete Sentences Blank, and its original intent to screen for conflict and maladjustment, it is selected for use as an instrument to measure the transient, reactive state of conflict caused by the multiple sources of stress.

Similar Approaches and Procedures

The management and prevention of stress is a high priority in today's society. Classes and programs--whether commercial, educational, or voluntary--emphasize two things: how we can help ourselves, and how

we can help others. We can only help others manage their stress after we have learned to manage our own. We must recognize the impact of stress on our health and well-being, and learn to minimize the ill effects of our own particular stress (Jasmin, Hill & Smith, 1981). The primary goal of teaching stress management skills then becomes helping others to discover their own optimal stress level. This is done by (a) identifying and assessing stressors; (b) identifying and assessing responses to those stressors; and (c) commitment to a disciplined life-style that reduces stressors and improves the responses (Jasmin et al., 1981; Murphy, 1981; Wiggins, 1978).

Menninger (1978) notes that psychiatry and medicine have been concerned only with the seriously ill. He implies that the positive movement toward health and well-being will be a grassroots, self-help movement (Dilley, 1978). As do others, Menninger advocates increased self-awareness and recognition of one's own stress level, which does not necessitate a psychiatrist. The initial self-awareness should be learned under some sort of supervision.

Consultation has been shown to be an effective way of training nurses in stress reduction. Consultation must be done in a timely manner in crisis, but preventive training gives nurses the skills to handle future events. The consultant need not necessarily be a nurse, but will usually be a psychologically trained person from a related discipline. The specific skills, attributes, and attitudes of the consultant are more important than position, discipline, or clinical background (Caplan, 1970; Claus & Bailey, 1980; Priesner, 1980).

One purpose of consultation and training is holistic health education. Allen (1977) encourages health care education--as a deliberate

elaboration of psychological education--as a lifelong educational process. This developmental health education would aid in learning more effective ways to cope with stress, with developing positive self-concepts, and dealing with physical and mental fitness. Menninger (1978) strongly recommends "emotional" education for children and adults (p. 80). Health education programs would be experiential--using biofeedback, relaxation, and imagery. Such a program could "systematically attack the notion that emotions are externally caused, that we are the pawns of our environment rather than the origins of much of our experience" (deCharms, 1968, in Allen, 1977, p. 43).

Another purpose of consultation and training is reframing current perceptions.

> The nurse's perception of a situation as a stressor or satisfier is crucial to any understanding of nursing stress. Changing the nurse's perception, her awareness, and enlarging her behavioral repertoire may be the key in turning stressful situations into satisfying experiences. With this enlarged behavioral repertoire from which to draw, the nurse who previously felt powerless could then actively control and influence a given situation. (Claus & Bailey, 1980, p. 57)

Although evaluative research on the effects of stress-reduction intervention have been minimal, and very few studies have been done using only nurses, Mannino, Maclennan and Shore (1975) found an overall improvement of 69% in 35 mental health consultation studies reviewed (in Claus & Bailey, 1980, p. 98).

There have been a few studies reported which examine nurses and stress. Gentry, Foster and Froehling (1972) attempted to compare intensive and non-intensive nurses. They found some differences, but all measures were within normal limits. The number of non-intensive nurses was only eight, and wider differences are noted between the medical

center nurses and the Veterans' Hospital than the situational stress of intensiveness.

Another field study involving general duty RN's (n=60) was done by Cleland in 1965. She found that the need, or lack of need, for social approval was a motivator, and considered it to be an intrinsic, enduring individual characteristic. Nurses with an increased need for social approval performed best under conditions of lowest situational stress; while those with a low need for approval required moderate stress to bring motivation up to optimum for maximum performance (p. 297-298).

Behavioral Associates in Beaufort, South Carolina, teaches an on-going training series of stress management classes to the drill instructors at the U. S. Marine Training Camp. One of the measurements routinely used in the evaluation is one of locus of control. Their findings, in approximately 250 men, who are under mandatory attendance requirements, are that over a 12-week time period, locus of control takes a significant turn in the direction of internality (Peter Neidig & Dale Friedman, personal communication, February, 1984).

The issue of mandatory vs. voluntary participation in self-improvement groups is evidenced in changes in recorded locus of control. In a group of 55 college-educated social services workers, all of whom were required to attend a 15-hour, 5-week course on stress management, there were no significant changes in the pre- and post-test scores of any of Levenson's I/P/C Scales. The perception of internal control, control by powerful others, and control by chance was 32.98, 20.36, and 16.76 on the pretest and 35.85, 20.72, and 14.74 on the posttest. It appeared that the shortened time and mandatory nature both had a limiting effect on self-awareness and improvement.

The field studies done in preparation for this research showed that participants in stress management classes (nurses, HRS employees, and general public) were under moderate to severe stress as measured by the Social Readjustment Rating Scale. The pilot study found significant changes in the locus of control of registered nurses in the direction of internality, following the stress management course (Patterson, 1981).

A study similar to the one proposed (n = 124) investigated life events as they related to anxiety, support system, and locus of control. Johnson and Sarason found that life changes have their most adverse effect on those people perceiving the least amount of control over environmental events. The results indicate that life events are better predictors of future illness of those with a higher sense of external control, as well as those with less effective support systems. There was not significant relationship between these measures and measures of state anxiety. "The important determinant is the perception of control of these stressful life events" (Johnson & Sarason, 1977, p. 207).

The responsibility for oneself and the holistic approach to training are repeatedly emphasized. Claus and Bailey (1980) have prepared and taught an entire curriculum around Living with stress and promoting well-being for intensive care nurses. These goals of responsibility and holism (Pincus, 1980) are likewise presented from independently developed programs in Canada (Murphy, 1981) and Appalachia (Porter, Peters & Heady, 1982). Generally, the goals are quite similar: identify and assess personal vulnerability, stressors, and responses; examine general attitudes, skills, and preferences; and a commitment to a lifestyle that enhances well-being (Claus & Bailey, 1980; Jasmin, Hill & Smith, 1981; Johnson & Sarason, 1977; Murphy, 1981). These goals of personal

identification, examination, and commitment become the stated objectives for consultation and training. Shealy (1981) notes that although processes may be initially reparative, as they stabilize over time they also have the potential for prevention. Other intervention projects report continued stabilization up to three years later.

Chariff, Duke, Level and Smith (1980) studied locus of control in a population of general duty registered nurses as it related to role ambiguity and job satisfaction. They found a significant relationship between internal locus of control, job satisfaction, and role clarity in nurses who had been in their positions for five years or more.

Connolly (1980) proposes a counseling model based on locus of control. He proposes that the "transfer of beliefs from one life area to another and the experiences in each are key variables in formulating internal versus external expectancies of control" (p. 178). Drawing from many humanistic psychology approaches, the model takes traditional experiential approaches and integrates those with the phenomenological aspects of social learning theory to aid in behavior change. It is offered as a useful tool in both individual and group settings.

Foulds (1976) used an experiential-gestalt growth group, facilitated by the experimentor, in a study which found that "increased self-awareness and authentic interaction may be one effective method for altering generalized expectancies in the direction of internality" (p. 299). Groups were conducted 3-1/2 hours weekly for 8 weeks. Using pooled results of two groups with 15 subjects each, and matched control groups (n = 60), the pre-test, post-test control group design found significant changes at the .001 level. Foulds suggested that other forms

of treatment, as well as follow-up studies, be used to determine the factors reliably associated with constructive personality and behavior change.

A recent study by English (1983) investigated a sample of 18 women, divided into three groups (treatment, support, and control). The treatment consisted of sixteen hours of training over an eight-week time frame. The stress reduction program was designed to address as many facets of stress as possible, and included some, but not all, of the dimensions addressed in this study. All the subjects had expressed a desire for assistance in dealing with stress. In addition to a self-developed questionnaire, this study used the Life Events Survey by Johnson and Sarason, which is similar to the SSRS as both a pre- and post-test. The results were non-significant, with improvement occurring in the treatment, support, and control groups. There was twice as much improvement in the treatment group, however.

Frain and Valija (1979) report that "individuals whose systems successfully adapt to modern stress express improvement in their energy and capabilities as well as their emotional states." "I feel ready to . . . I feel less afraid. My spirits are back to normal." These comments often confirm a health professional's estimation of their current health status (p. 47).

Menninger (1978, p. 83) claims that

> people are already demanding "psychological competence" skills . . . Although he had another context in mind, H. G. Wells' comment aptly describes the problem of prevention . . . "Human history becomes more and more a race between education and catastrophe." Learning about ourselves--the ability for men and women to establish greater individual control; a sense of mastery of their own destinies, their own difficulties, their own problems--is the essence of developing better mental health.

Summary

The review of the literature supports the need to determine factors which are useful in identifying high stress levels, understanding those influences on the process of stress, and influencing the outcome of those stress factors. The topic of stress proliferates in the mainstream of both professional and lay literature. Holistic health concepts best address the pervasive nature of stress, in that holism deals with the integration of the psychological, physiological, social, and spiritual nature of man. The measurement of life events has been known as a reliable way of measuring social readjustments and predicting future illness. Social learning theory addresses both conflict and locus of control, indicating that both are related to a wide range of life activities, and may be investigated in many spheres. Studies similar in nature to this proposal have dealt with stress reduction programs, identifying locus of control and/or life events as mediators of stress.

CHAPTER THREE
METHODOLOGY

Overview

There is a need to investigate those factors which are useful in identifying high stress levels, understanding those influences on the process of stress, and influencing the outcome of those stress factors.

This experimental study was concerned with the identification, intervention, and evaluation of stress-related variables. Registered nurses comprised a population of high-risk professionals. The study initially identified and assessed the variables of recent life events, locus of control, and the level of projected conflict. Intervention was in the form of a training group focusing on holistic health concepts to increase personal awareness and promote stress mastery. Following the intervention, the study measured and evaluated changes in conflict and control, after statistically equalizing the group on the basis of the amount of prior readjustment to stress.

The topic of stress proliferates in the mainstream of both professional and lay literature (Benson, 1975; Frain & Valija, 1979; Lindner, 1973; Pearlin, Lieberman, Managhan & Mullen, 1981; Pellitier, 1977; Selye, 1974, 1976; Ryan & Travis, 1981). The holistic health concept best addresses the pervasive nature of stress, in that holism deals with the integration of psychological, physiological, social, and spiritual nature of man (Blattner, 1981; Krieger, 1981; Shealy, 1981;

Seiler & Messina, 1979; Yahn, 1979). Life events are known as a reliable way of measuring social readjustment and predicting future illness (Brenner, 1973; Dohrenwend & Dohrenwend, 1979; Holmes & Rahe, 1967; Lazarus, 1966, 1979; Rahe, 1978). Social learning theory addressed both conflict and locus of control, and identified both variables as related to a wide range of life spheres (Girdano & Everly, 1979; Lah & Rotter, 1981; Lefcourt, 1981; Levenson, 1972; Rotter, 1966; Rotter & Rafferty, 1950; Seligmann, 1975). Studies similar in nature and results of this proposal dealt with stress reduction programs, identified locus of control and/or life events as mediators of stress, and utilized either nurses or group interventions in the process (Chariff, Duke, Level & Smith, 1980; Claus & Bailey, 1980; Connolly, 1980; Foulds, 1976; Gentry, Foster & Froehling, 1972; Jasmin, Smith & Hill, 1981; Krikorian & Paulanka, 1982; Murphy, 1981; Johnson & Sarason, 1977).

Population and Selection of Subjects

The total of 52 participants was drawn from a large population of registered nurses that was asked for volunteers, and the potential existed for any race, age, or sex to participate. All participants were female, and all were white except one. All participants had a high school education, and had received their nursing education from one of the three types of nursing programs. The three types of education programs leading to licensure as a registered nurse include the Associate Degree (ADN) in nursing, which is a two-year junior college technical degree; the Diploma program, which is a three-year, hospital-based training program; and the Bachelor of Science in Nursing (BSN), which is a four-year, university-based program for the education of the

professional nurse. Therefore, there were differences in educational levels among registered nurses.

Whether or not the nurse was currently actively employed, or employed on a part-time basis did not preclude participation in this study. Neither did the actual place of employment affect eligibility to participate. Places of employment included, but were not limited to, hospitals, nursing homes, home health agencies, public health, and physicians' offices. Demographic information is summarized in Table 1. The nurses who participated in this course received 24 hours of continuing education credit, which fulfilled the mandatory requirement by the State of Florida for nursing relicensure every two years.

The study was publicized in a newsletter mailed monthly to the 6000-plus licensed nurses in a five-county nursing district of Northeast Florida. The JHEP Nursing News is a publication of the Jacksonville Health Education Program, a division of the University of Florida, and distributed to all active and inactive RN's and LPN's in Baker, Clay, Duval, Nassau, and St. Johns counties. The JHEP Nursing News was the primary mode of publicity to individual nurses. Announcements were approved by both the Editorial Board and the State Board of Nursing Division of Continuing Education. Directors of all area hospitals were personally contacted by the principal investigator and their aid enlisted. Twenty-seven registered nurses volunteered to participate in the study, as part of the experimental group. Those volunteers were mailed an introductory letter prior to the beginning of the study (Appendix A).

Table 1

Demographic Data

Variable	Treatment Group n=27	Control Group n=25
Licensure		
Active License	96%	96%
Inactive License	4%	4%
Employment Status		
Working full time	77%	52%
Working part time	25%	32%
Unemployed	15%	12%
Not working in nursing	4%	8%
Full time student	--	8%
Seeking work	7%	4%
Working full and part time	11%	--
Shift		
Days	33%	60%
Evenings	15%	4%
Nights	19%	4%
Rotate Shifts	15%	4%
Baylor Plan	4%	20%
Location		
Hospital	59%	68%
Nursing Home	7%	--
Doctor's Office	4%	8%
Home Health Agency	7%	4%
Community Health	4%	4%
Industrial	4%	--
Other	11%	4%
Position		
Staff	37%	44%
Supervision	19%	12%
Administration	4%	8%
Educator	4%	--
Other	7%	4%
Specialist	11%	12%
Years in Nursing		
Average	13.29	10.76
Range	1-40	1.5-32

Specialty Area		
Intensive Care	7%	32%
Medical-Surgical	37%	24%
OB/Gyn	11%	4%
Geriatrics	7%	--
Pediatrics	15%	--
Psychiatry	4%	4%
Public Health	--	4%
Rehabilitation	--	4%
Occupational Health	4%	--
Other	25%	24%
	Chemotherapy Dialysis IV Therapy Emergency Room Dental Records Review	Oncology Administration Dialysis Dermatology
Years in Present Position		
Average	3.5	3.2
Range	.1-18	.1-10
Mode	1 (14 = 1 yr or less) 51%	1 (19 = 1 yr or less) 36%
Salary		
Average	n = 20 22,358	n = 19 21,417
Range	12,000-33,280	10,000-31,000
Basic Nursing Education		
ADN	52%	60%
Diploma	33%	36%
BSN	15%	2%
Advanced Degrees	15%	--
Certification	15%	12%
Children		
None	15%	40%
Ages 0-6	6%	7%
Ages 6-12	21%	10%
Ages 12-18	22%	25%
Ages 18+	51%	58%
Total Children	67	40
Financial Structure		
Sole Wage Earner	30%	40%
Joint Wage Earner	63%	56%
Earn No Wages	7%	4%

Spouse Salary		
Average	n = 20	n = 12*
	36,130	43,958
Range	8,000-120,000	18,000-100,000
Mode	50,000	100,000
Marital Status		
Married	66%	64%
Single	--	12%
Separated	3%	--
Divorced	22%	12%
Widowed	3%	8%
Remarried	7%	4%
Age		
Average	42.5	36
Range	25-61	21-54
Sex	100% female	100% female
Race		
White	96%	100%
Non White	4%	--

*Does not include 3 spouses with no wages.

The self-selected volunteers for the experimental group were divided into two small groups on the basis of their personal time preference as they individually registered. The results of all experimental participants were pooled. There was one (pooled) treatment group with 27 participants and one control group with 25 subjects, for a total of 52 participants. The treatment group met for five four-hour sessions, twice a month for two and a half months. Meeting conditions were consistently uniform throughout the study. A single room was provided by the University of North Florida for use during the entire study.

The control group consisted of volunteers from the same population as the treatment group (i.e., the 6,185 active and inactive RN's in the five-county area). Members of the control group were enrolled in the University of North Florida's Department of Nursing. All these women were registered nurses who had graduated from either ADN or Diploma nursing programs who were seeking to become BSN's. The participation of these controls was approved by the University faculty. During the ten-week period of the experiment, the control group attended a course in Professional Issues in Nursing.

Assessment Procedure and Measurement

Three standardized instruments were used in the data analysis for assessing participants and measuring change. One of these was an assessment of the amount of social change and readjustment that has occurred in the participant's life over the past year, and was administered only at the beginning of the study. The other two assessment tools measured conflict and locus of control, and were administered both before and after the treatments.

The Social Readjustment Rating Scale (SRRS, Appendix B) was used as an indication of the amount of life changes experienced and perceived by the participants over the past year (Holmes & Rahe, 1967). The life events measured will not decrease over the ten-week period and will be used as a pre-treatment measure only.

The Incomplete Sentences Blank-Adult Form (available from the Psychological Corporation) is influenced by temporary moods and reactive states, making it a useful screening tool for assessing and measuring change in conflict states. The RISB was used as an objectively scorable projective measure of personal conflict reflected in several areas (Rotter & Rafferty, 1950).

Levenson's Tridimensional measure of locus of control--Internality, Powerful Others, and Chance (Appendix C)--was used to assess the perceived locus of control of each participant in each of these three dimensions (Levenson, 1972).

Assessment Tools

Social Readjustment Rating Scale (SRRS)

The SRRS was used in self-administered, self-scored assessment of "life change units" that occurred during the previous year. Administration took less than 10 minutes. Forty-three items were in the original scale, and 42 items remained on the final form, with 100 "points" given for the highest ranking event--death of a spouse. Other events had lesser values. The adapted form allowed for changes such as economic inflation--mortgages ±$10,000 have been changed to ±$50,000--and includes death of child or a parent, as well as spouse. Holmes and Rahe (1967) indicated that individuals can successfully physiologically cope with the adjustments required for 200 life change units during a one-year

period. Changes totaling greater than 200 increase the possibility of a stress-related illness as follows: 200-300 = 37%; 300-400 = 50%; and changes above 400 = 81% greater chance of developing an illness due to stress. The amount of adjustment required for these mild, moderate, and severe life crises is considered to be sufficient but not necessary cause for illness, and the extensive research on life events has continued to prove the small but significant reliability of the predictability of later illness.

Internality/Powerful Others/Chance (I/P/C)

Levenson's (1972) tridimensional measure of locus of control--internality, powerful others, and chance (I/P/C)--was utilized as a measure and differentiation between one's dependence upon (a) internal choices, (b) powerful others, and/or (c) chance, fate or luck in determining life events. These perceived loci of control may either result in an unpredictability of life events due to the great complexity of forces in the environment (externality) or a perception of a causal relationship between events and one's own behavior or characteristics (internality).

Levenson's three dimensions of expectancy, Internality (I scale), Powerful Others (P scale), and Chance (C scale), were originally designed as a reconceptualization of Rotter's (1966) I-E scale. The initial unidimensional formulations had since been considered somewhat simplistic, and the subsequent factor analytic studies underscored the need for a multidimensional view of the construct of control. Rotter's scale was the first theoretically based, systematically studied measurement of locus of control, and is the instrument against which all other measures

are compared. Rotter's test yields a single raw score, while Levenson's yields three scores.

The I scale measures personal control--the extent to which people believe they have control over their own lives; the P scale deals with powerful others, who control predictable events; and the C scale deals with unpredictable chance or fate. Each scale on the test is composed of eight items on a Likert format (possible range on each scale = 0 to 48), which are presented to the subject as a unified attitude scale of 24 items. The Likert scale makes the dimensions more statistically independent of one another; the I, P, and C scales make a personal-idealogical distinction by phrasing all statements so as to pertain only to the person answering; and specific issues are worded so as to be immodifiable.

The I/P/C scales are factor analytically sound. The validity of the scales has been demonstrated through covergent and discriminate methods. Internal consistencies similiar to, or slightly higher than Rotter's are found: I scale = .64 to .73; P scale = .78 to .82; C scale = .78 and .79 (the range for Rotter is .69 to .73). Split half reliabilities are .62, .66, and .64 for the I, P, and C scales. Test-retest reliabilities are approximately .60-.73 for two-month intervals.

A word of caution about interpretation is necessary. High scores on each sub-scale are interpreted as indicating high expectancies from that source. Low scores reflect tendencies not to believe in that locus of control (Lefcourt, 1981, p. 18).

Rotter's Incomplete Sentence Blank (RISB)

The RISB-Adult Form is a 45-item test, consisting of beginnings or "stems" of sentences which are to be completed by the subject. The completed sentences may then be scored according to a standardized system, with male and female examples. The original validation studies stated that the purpose of the test was to obtain an overall score for the degree of conflict. Areas of conflict which were considered included family, social, sexual, health, vocational, and educational (Rotter, Rafferty & Schachtitz, 1949). Responses are independently scored on a scale of 0 to 6, with higher numbers indicating greater conflict. The total score is an index of adjustment/maladjustment. The instrument is useful for screening purposes. The test yields a continuous score, and the study evaluated changes in the scores.

The test was standardized on 299 college freshmen at Ohio State University. The changes between the college form and the adult form are only slight, and it is believed that the stem modifications are insignificant enough to allow the scoring principles and manuals to be applicable when used by competent clinical workers.

The correlated split-half reliability for the RISB is reported as .84 and .83 for males and females, respectively. Inter-scorer reliability is reported as .91 and .96 for males and females. Only two scorers, trained by the author, were used in the standardization study. In a test of this kind, where the possibility of subjectivity in scoring exists, inter-scorer reliability is of the greatest importance.

In order to meet the demand for interrater reliability, a training session was held to prepare six independent raters. The trainer was a clinician well-versed in the teaching and administration of the RISB.

All raters were either licensed psychologists or licensed mental health counselors, and at least two were also Advanced Registered Nurse Practitioners in Psychiatric Mental Health Nursing. All raters received the same training simultaneously. At least two independent raters scored each test, and the same raters blindly scored both the pre- and post-tests for each participant.

Approximately 20 to 40 minutes are needed to administer the test, and it can be administered equally well either individually or in groups. It must be hand-scored. Available from the Psychological Corporation, New York 17, New York, the cost is $3.00 for a package of 50 blanks. The manual is available for a cost of $7.00.

Treatment

The treatment in this study was a training intervention for the recognition and mastery of stress among a representative group of high-risk professionals, registered nurses. The 27 treatment subjects attended five four-hour training sessions over a two and a half month period. The training content included theory and assessment of stress, and intervention to aid in stress mastery. The emphasis was on a holistic health approach, which encompassed individual physical, psychological, social, and spiritual needs. The treatment group had pre-test and post-test levels of projected conflict and perception of locus of control, as well as a pretreatment survey of life events. The intervention encompassed the entire 10 weeks of the training period, and the sessions were composed of the following: measurement and significance of life events, physiological and behavioral manifestations and modifiers of stress, personality types and preferences, communication styles and skills,

adjustment and self-concept, habit control and time management, social support systems, and control and autonomous thinking. Specific application of the training information was directed at registered nurses as a representative population of high-risk professionals. The principles of adult learning were an integral consideration for the structure of the training sessions. The training sessions were directed at developing self-awareness and responsible lifestyles. The training modules utilized holistic health approach and social learning, as both of these approaches encompass the complexity of each individual and emphasize personal responsibility in the establishment of well-being.

The control group participated in all pre-tests and post-tests, but did not participate in the intervention process.

Treatment Rationale

The rationale for approaching the components of stress theory was to establish within the participants an expansion of knowledge and awareness, leading to acceptance. This was accomplished in the least threatening and most effective manner by beginning with group generalities and progressing to specific personal implications.

The rationale for focusing on self-awareness is more positive, as opposed to a possibly detrimental approach of externally "fixing a patient," which might debilitate one's awareness of himself as a free and responsible agent (Frankl, 1975, p. 111).

The rationale for approaching the psychological and social components of stress was to facilitate the expansion of knowledge, awareness, and acceptance. Beginning with self-awareness and promotion of self-concept, the awareness and acceptance of others was enhanced, and formed the basis for further generalization to interpersonal and larger social relationships.

Treatment Content. The content for the training session was developed in several ways. Texts focusing on stress management were reviewed for order and content, experts already practicing in the field were consulted, and a field study was conducted to develop the training modules. The focus of all modules was the presentation of the subject matter in such a way as to meet the specific needs of the adult learner, and to enhance the adoption and integration of the concepts by the participants. The participant's ability to eventually share with others (eng., with their patients) the various methods of identifying and managing stress in everyday life were considered in the subject matter presentation. Overlapping and interrelating of the concepts is planned.

In a few cases, outside presenters were used for special topics. In all cases, they were briefed on the philosophy and purpose of the content and treatment. The presenters on the individual topics were recognized experts in the area of that subject. For example, those speaking on relaxation and self-hypnosis were practicing members of the American Society of Clinical Hypnosis; the speaker on nutrition was a registered dietician; the speaker on the Myers-Briggs was a counselor in the University Counseling Center. All presentations by outside

speakers were videotaped in their entirety. The purpose of outside speakers was to make the training more varied and interesting, as well as credible, and to avoid trainer effect. The role and function of the speakers was to reinforce the context and concepts as planned for this experimental study.

Treatment group. The treatment group was presented with information focusing on a holistic approach to stress. The presentational format was that of group training, and there was maximal opportunity for dialogue and interaction between both the facilitator and the participants. The principal investigator was the primary facilitator, and is experienced in teaching stress management from a holistic framework, and experienced in teaching nurses as adult learners. Expert speakers were utilized periodically, to augment the presentation of subjects and control for experimentor bias. Theories were presented in an informal survey, as opposed to detailed didactic information.

Control group. The control group was a class of RN to BSN students attending the University of North Florida in Jacksonville. These women were all registered nurses who had graduated from either ADN or Diploma programs who were seeking to upgrade their education to BSN level. They studied professional issues in nursing, and should not have any influencing factors along the lines of the treatment group. The control group took all pre- and post-tests in the same time frame as the experimental group (i.e., ten weeks apart). Arrangements have been made to mail the results and interpretations of the study to both the experimental and control groups when all the data are evaluated.

Briefly, an overview of the holistic health sessions follow. A complete course guide is detailed in Appendix D.

Orientation. Prior to the beginning of the experiment the participants met at the selected site and completed all evaluational instruments. Rotter's Incomplete Sentences Blank (RISB) and Levenson's I/P/C were completed by all participants. Each was filed under the code number that was randomly assigned to each participant and saved for scoring at the conclusion of the experiment. For teaching purposes the Social Readjustment Rating Scale (SRRS) was completed and scored prior to the first class. The results were not known by the investigator until completion of the study. Consent forms, demographic data sheets, and the Myers Briggs Type Indicator (MBTI) were completed at the orientation meeting. Consent forms were recorded and demographic information was filed for later evaluation. The MBTI was scored for distribution at a subsequent class meeting.

After pretests were completed, general questions regarding the nature of the study were answered.

Session one. The first session included brief, general introductions. Most participants were attending because they hoped to benefit from the course, as well as to receive continuing education credit. The concepts of the SRRS were shared and the relative importance of the resultant scores were discussed. A lecture and a slide show of Selye's (1974) General Adaptation Syndrome were presented to introduce stress and lifestyle management. General stress and adaptation theories were taught. These included, but were not limited to the following:

types of stress; life events; internal-external control; physiology; behaviors; self-concept; time management; exercise, nutrition; relationships; support systems; and job satisfaction. The purpose was a general overview of the multi-dimensional process of stress and to introduce holistic attitudes in addressing lifestyles. Disclosure of teaching events and techniques to be employed for the entire course was presented to the participants.

Participants were introduced to relaxation techniques by demonstrating the physiology of breathing and experienced Body Scan relaxation and progressive muscle relaxation techniques. These relaxation exercises were presented in the form of audiotapes. Participants were informed that audiotapes would be further presented in a variety of types employing both male and female voices, progressing from simple to more abstract formats as the participants' ability to relax increased. The group members were encouraged to record their pulse rates before and after each relaxation exercise as a form of biofeedback. Additionally, they were to record their personal reactions so as to later identify those personally effective relaxation techniques.

All sessions were concluded with the same format, i.e., a relaxation exercise, homework assignments and suggested readings.

Session two. An experiential exercise useful in becoming aware of personality differences was used to introduce the Myers Briggs Type Indicator, a self report inventory based on Carl Jung's personality theory. Looking at Types, a slide show by Earl Page, was narrated by a counselor from the University Counseling and Testing Center. Interpretation and discussion of individual MBTI profiles continued

and focused on how personality preferences and differences are useful and manifested in multiple areas of life, including among other things relationships, occupations, and communication. The MBTI profiles are summarized in Table 2.

Theories and research on coronary prone lifestyles, Type A/B behavior (Friedman & Rosenman, 1974), and indications of stress were presented and discussed. Stressful habits, particularly smoking, alcohol abuse, and overeating were examined. Ways to consider bringing them under control concluded this particular discussion.

The session ended with a relaxation exercise that included visual imagery of a seashore.

Session three. Much of the focus of the third session was relaxation, biofeedback, and self-hypnosis. A licensed hypnotist and clinical psychologist lectured on the various applications of hypnosis and gave a group demonstration.

There was a presentation of time management theories, along with multiple techniques for managing time. Participants had been using a daily Day-Timer notebook since the beginning of the class and the usefulness of planning time, delegation of responsibility and authority, and systems for time management were shared.

The importance of a nutritionally adequate diet, meeting individual needs, took up the remainder of this session. Participants reviewed their dietary habits which were reflected by the nutrition sheets kept for the prior two weeks. Fiber, cholesterol, fats, carbohydrates, proteins, salt and sugar were the primary components covered in discussion. The session concluded with a relaxation exercise of autogenic phrases.

Table 2

Experimental Group as They Were Represented in the Myers-Briggs Type Indicator Categories

n = 27

ISTJ 3	ISFJ 6	INFJ 2	INTJ 2
ISTP	ISFP 2	INFP 1	INTP
ESTP	ESFP	ENFP 2	ENTP
ESTJ 3	ESFJ 4	ENFJ 1	ENTJ 1

59% were Introverted	44% = SF	59% = SJ
66% were Sensing	22% = ST	07% = SP
66% were Feeling	22% = NF	22% = NJ
88% were Judging	11% = NJ	11% = NP

Most participants work best in the here and now, rather than future-oriented, and most make feeling, personal decisions after careful consideration.

Session four. The focus of session four was communication theories and processes, rational thinking, exercise and social support systems. Communication theories and techniques presented and discussed included assertiveness and transactional analysis. As in previous sessions, discussion was directed at how these theories interrelated with previously presented concepts and how they applied both to general populations and individuals.

In the area of exercise, discussion centered around the importance of aerobic exercise. Participants found that they knew how to do many types of exercises and activities but that their current lifestyles generally precluded time for exercise, and virtually none of the subjects participated in any type of aerobic exercise.

The final topic of discussion was the identification and assessment of each person's support system. The importance of developing and maintaining an adequate support system as a buffer against stress was emphasized.

The relaxation exercise was a guided imagery utilizing the colors of the rainbow and music.

Session five. The final session was the most personal. It dealt with job satisfaction, self-concept, psychosynthesis, and continued self-help and evaluation.

The reasons for work, its rewards and responsibilities, comprised the discussion of jobs, with varying degrees of job satisfaction being shared.

Participants reviewed two homework assignments. One was directed at identifying positive traits, and the other at a fuller identification of a wider spectrum of self concepts. Ideal, real, and

perceived self concepts were discussed. Two exercises in psychosynthesis helped to clarify various self analyses and made the first attempt at a transpersonal view of each lifestyle.

The value of continued self-awareness formed the concluding discussion and suggestions were made for continuing personal development. An extensive bibliography was distributed and a variety of journal techniques were demonstrated. Most participants expressed a desire to continue their awareness experience in some manner.

Time was allowed for participants to express some concluding remarks, to define for themselves where they desired to go from this point, and to assess what had been accomplished. This was done both verbally and in writing.

Posttesting session. Participants returned the following week for posttesting with the Rotter Incomplete Sentences Blank and the I/P/C. Knowledge and awareness were assessed and written course evaluations were completed. These were all completed without discussion. Most participants chose to remain after the posttests were completed and visit with each other, generally socializing before final separation occurred.

Procedurally, all Rotter Incomplete Sentences Blanks were blindly rated by two of the trained raters and interrater reliabilities for the pretest and for the posttest were obtained. Each of the 52 participants completed two RISB's which were scored by each of the two raters for a total of 208 separate scores. All I/P/C tests were hand-scored by the principal investigator for a total of 104 tests. Twenty-seven knowledge and awareness questionnaires were recorded. The results are included in Table 2.

Table 3

Summary of Self Reported Changes in General Knowledge and Awareness from Experimental Group

	Category	Percent Of Increase
	n = 22	
1.	Knowledge of stress theory	40%
2.	Understanding of personal stressors	34%
3.	Knowledge of physical indications of stress	38%
4.	Ability to identify individual stress indicators	31%
5.	Knowledge of behavioral indications of stress	35%
6.	Control of stressful behaviors	31%
7.	Knowledge of relaxation/meditation techniques	39%
8.	Efficacy of relaxation skills	34%
9.	Knowledge of relationship of job satisfaction and stress	37%
10.	Stressfulness of job	* 7%
11.	Satisfaction with present job	**12%
12.	Knowledge of relationship of personal control of stress	38%
13.	Amount of perceived personal control	30%
14.	Knowledge of time management theories	31%
15.	Efficacy of time management skills	23%
16.	Time spent in self nurturing	20%
17.	Knowledge of theories of support systems	36%
18.	Efficacy of own support system	23%
19.	Understanding of personality preferences of others	24%
20.	Understanding of our personality preferences	25%
21.	Personality as a stressor	***11%
22.	Knowledge of components of self concept	31%
23.	Personal self concept	24%
24.	Knowledge of communication concepts and theories	17%
25.	Efficacy of communication skills	16%
26.	Knowledge of relationship between nutrition and stress	20%
27.	Adequacy of personal nutritional habits	9%
28.	Knowledge of relationship between exercise and stress	20%
29.	Adequacy of personal exercise habits	19%

* It was expected that perceived job stress would decrease
** It was expected that perceived job satisfaction would increase
*** It was expected that perception of own personality as being stress producing would decrease

Generally, participants increased their knowledge and awareness of the concepts and theories by approximately 30%.

A summary of the evaluation of the course is presented in Table 4. Most participants found the course both personally and professionally relevant and indicated they would recommend the course to others. Detailed evaluations are presented in Appendix E.

Threats to Validity

There were several threats to the validity of this study, both procedural (internal validity) and generalizability (external validity). Participants may have reacted to being assessed--either attempting to appear in a more positive sense, or experiencing their lives in an exaggerated negative sense. In order to minimize these reactions to assessment, participants were as fully informed as possible of the purpose of the study without giving them cues as to the expected results. Participants were encouraged to be as open and honest as possible and were reminded that the final analysis would be using group, not individual, data. Confidentiality was observed at all times. The fact that participants would receive direct feedback in the form of the results of their tests, as well as the study, gave them an incentive to respond accurately.

Table 4

Summary of Course Evaluation

1. I found this course to be personally relevant: 5.6

2. I found this course to be professionally relevant: 5.5

3. I wound recommend this course to others: 5.8

4. The most important thing I (re)learned was:

category (number)	
relaxation (6)	GAS (1)
self-awareness (8)	R.E.T. (1)
control (5)	personal stressors (1)
assertiveness (2)	health (1)
personality (2)	exercise & nutrition (1)
time management (1)	

5. Other important things I (re)learned were:

category (number)	
self-awareness (8)	exercise (2)
relaxation (7)	assertiveness (3)
control (6)	awareness of others (1)
time management (6)	mutual experiences (1)
personality (4)	support systems (1)
self-management (3)	moderation (1)
psychosynthesis (2)	nutrition (2)

6. We could have spent less time on:

category (number)	
nothing (9)	relaxing (1)
diet/nutrition (8)	testing/paperwork (2)
meditation tape (1)	exercise (1)
"problems" (1)	MBTI (1)

7. I would like to have spent more time on:

category (number)	
time management (6)	exercise (1)
relaxation (5)	personality types (1)
nutrition (4)	individual problems (1)
hypnosis (4)	behavior mod (1)
class discussions (2)	stress theories (1)
biofeedback (1)	

8. To improve the class next time:

category (number)	
every week (6)	biofeedback (1)
relaxation (5)	decision-making skills (1)
more hours (3)	group discussion (1)
facilities (3)	more theories (1)
organization (3)	purchase tapes (1)

9. Lifestyle changes I intend to make as a result of this course include:

category (number)	anticipate stressful situations (6)
school (1)	personality types (4)
relaxation (9)	time management (3)
assertiveness (5)	time for self (10)
family (5)	quit smoking (2)
nutrition (4)	deal with past (1)
control (5)	self awareness (5)
work (1)	lose weight (4)
health (1)	seek counseling (1)
R.E.T. (1)	not to feel guilty (1)
spiritual (2)	increase involvement with others (3)
exercise (13)	grow old gracefully (1)
psychosynthesis (1)	run 1-2 marathons in 1984 (1)
moderate (1)	pray to God this all works (1)

26 participants listed at least three lifestyle changes.

Multiple assessments were possibly affected by pretest sensitization, as well as test-retest reliability. For this reason, at least 10 weeks elapsed between pre- and posttests, to allow adequate time for genuine behavior change or attitude change to occur. The control group was tested in an identical manner to the treatment groups.

Both maturation and contemporary history figure greatly in studies of this type. It was expected that the type of person volunteering for participation in this type of study would be undergoing some type of stressful situation, and might be actively engaged in behaviors to cope with those situations. This expectation of increased life events was borne out in the Social Readjustment Rating Scale and summarized in Table 4. Those activities might also effect positive change. Treatment was expected to expedite the therapeutic process of understanding, coping with and intervening against stress in a self-help mode.

Limitations

There were several limitations to both the scope and the generalizability of the results of this study. Women dominate the population and profession studied, and the sample was completely female, so there was gender domination and occupational exclusivity. There were educational stratifications within the profession of "registered nurses." Constraints of the sample size, which were small but statistically adequate, required stronger differences for significance. The motivation

Table 5

Summary of Social Readjustment Rating Scale

	Treatment Group n = 27	Control Group n = 25
Severe Life Crisis	n = 6	n = 0
400 +	22%	
Moderate Life Crisis	n = 5	n = 5
300-400	18%	20%
Mild Life Crisis	n = 8	n = 6
200-299	30%	24%
Stable	n = 8	n = 14
Below 200	30%	56%
	100%	100%

for volunteering for such a study varied among participants. The dimensions of learning that delineate those who learn more effectively through their auditory, visual, or kinesthetic senses were not addressed by this study. There were a number of other, different ways this information could be arranged and taught. These factors limited the strength and number of inferences that could be made beyond a population represented by this sample to the general population.

Research Hypotheses

The major thrusts of this study were the modification of personal stress and conflict, and the development of internality of control, as well as investigation of the mediating effects of prior life events. All hypotheses considered changes among the treatment groups, as well as changes between the treatment and control groups. The research hypotheses of this study were stated in the null form, as follows:

1. There will be no difference in conflict among the participants as measured by Rotter's Incomplete Sentence Blank due to the treatment.

2. There will be no differences in perceived locus of control of the participants as measured by Levenson's Tridimensional Locus of Control due to the treatment.

    a. There will be no difference in perceived internal control among the participants.

    b. There will be no difference in perceived control by powerful others among the participants.

    c. There will be no difference in perceived control by chance among the participants.

3. There will be no difference in life events as measured by Holmes and Rahe's Social Readjustment Rating Scale between the numbers of the groups.

4. There will be no significant relationships between measured life events and locus of control of the participants before or after treatment.

5. There will be no significant relationships between conflict and locus of control of the participants before or after treatment.

6. There will be no significant relationship between conflict and measured life events of the participants before or after treatment.

7. There will be no significant difference between groups on measured conflict, locus of control, and measured life events before or after treatment.

Statistical Evaluation

This was a pretest-posttest nested analysis of variance design. Subjects were nested in two groups: an experimental group and a control group, with 27 and 25 subjects, respectively. The dependent variables were the measure of conflict by the Rotter's Incomplete Sentence Blank and the tridimensions of locus of control as measured by Levenson's I/P/C. Separate ANOVA's were performed on the related questions.

To adjust for the inequality in levels of life events between the groups, the above ANCOVA design was incorporated into an analysis of covariance using the level of life events as the covariate.

A Pearson's Product Moment Correlation was used to determine the reliabilities of the ratings and raters of the Incomplete Sentence Blanks.

Summary statistics were compiled for the demographic data. A correlational matrix of all variables was compiled.

The data file was built by the principal investigator. Upon completion of the data file, the Computer Center at the University of North Florida made a setup according to the Statistical Analysis Systems (SAS, Box 8000, Cary, NC, 27511) and the analysis was run according to the proper procedure as delineated by the statistical consultant and SAS. Computational services were purchased through Northeast Regional Data Center (NERDC) at Gainesville, Florida, and are acknowledged and documented in the final results.

CHAPTER FOUR
RESULTS

This study sought to enhance self-awareness and stress mastery skills among registered nurses utilizing a facilitated training format. There were 27 experimental subjects and 25 control subjects participating in the 10-week, pretest-posttest experimental design. The constructs of conflict, life events, and locus of control, as well as their possible interactions were investigated. In this chapter, the findings of the study are presented. Each research question is restated and the appropriate data reported.

Conflict

The first research question addressed in this study was whether the perceptions and/or amelioration of conflict measured among the participants of this study could be influenced by the proposed intervention. The Incomplete Sentences Blank (Rotter, 1950) was given prior to and following the training sessions to the experimental group and twice to the control group during the same time frame. The tests were scored by two trained raters and pooled ratings were used for the analysis. The means and standard deviations for both groups are presented in Table 5. The mean change was -8.52 for the treatment group and -1.38 for the control group. There was a significant difference between the pretest and posttest change scores ($F=4.927$, df 1,50 at the .05 level of significance). The null hypothesis that there would be no difference in conflict as measured by the RISB, was

Table 6

Means and Standard Deviations of the Treatment and Control Group on the Rotter Incomplete Sentences Blank

Group	Pretest M	Pretest SD	Posttest M	Posttest SD	Mean Change
Treatment (N = 27)	136.07	15.00	127.55	16.40	-8.52
Control (N = 25)	117.50	12.33	116.12	15.07	-1.38

not accepted. Participants showed a significant change in that the level of conflict decreased between pretest and posttest while the control group showed no significant change in level of conflict. The treatment group had a pretest mean of 136.07 as compared to 117.50 for the control group, and showed a decrease of 8.52 points, with a mean of 127.55 on the posttest. The control group decreased 1.38 points to a mean of 116.12 on the posttest.

Locus of Control

The second series of research questions focused on the influence of the experimental treatment on locus of control. The subjects were given Levenson's Tridimensional Locus of Control Scale which measured the dimensions of internality, powerful others, and chance. The test was administered to both the treatment group and the control group prior to and following the training sessions. The means and standard deviations for the three dimensions of internality, powerful others and chance are all summarized in Table 7, and illustrated in Table 8.

The first related hypothesis stated that there would be no difference in perceived internal control. The statistical decision was to fail to reject the null hypothesis ($F=1.254$, df 1.50, $p=.05$). The pretest mean for the experimental group was 36.70 as compared to 38.88 for the control group. The posttest means showed a similar pattern: 38.33 for the experimental group and 39.04 for the control group. Although both groups increased their perceived sense of internal locus of control, the increase was not significant.

The second related hypothesis stated that there would be no differences in perceived control by powerful others. The statistical

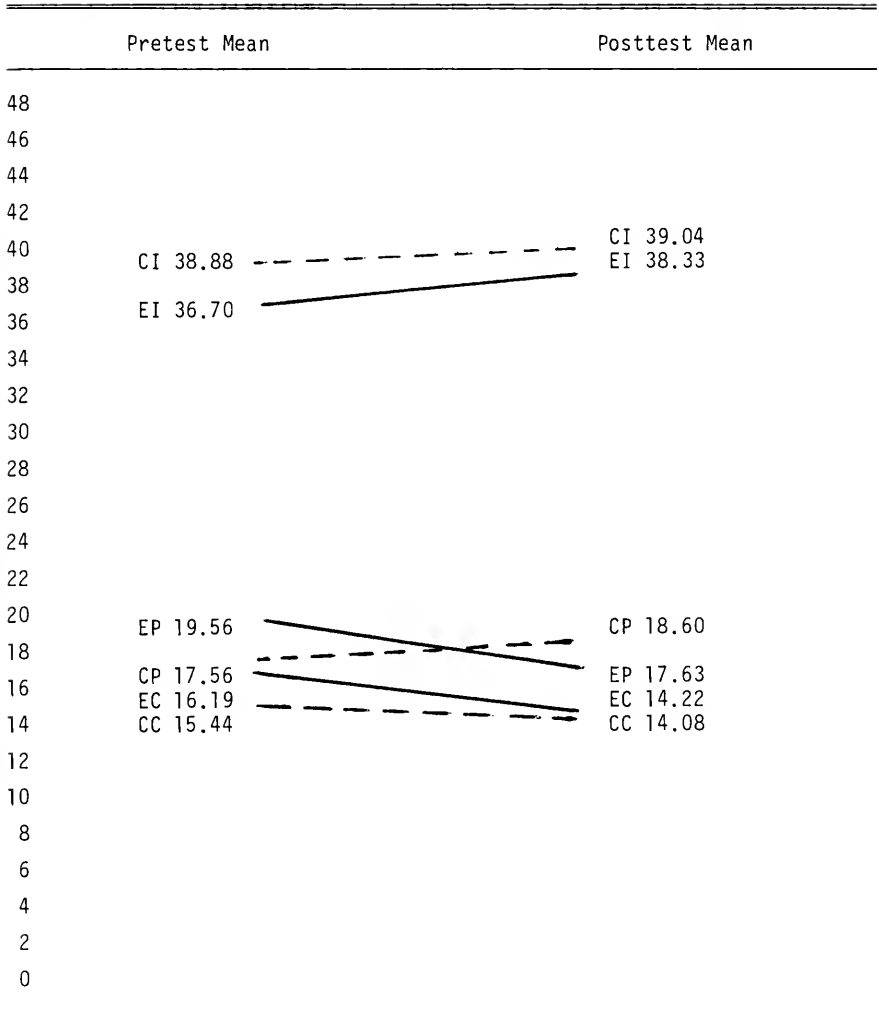
Table 7

Means and Standard Deviations of the Treatment and Control Group on the Levenson Tridimensional Locus of Control Scale

Scale/Group	Pretest M	Pretest SD	Posttest M	Posttest SD	Mean Change
Internality					
Experimental	36.70	5.86	38.33	6.23	+1.63
Control	38.88	3.99	39.04	4.54	+ .16
Powerful Others					
Experimental	19.56	7.45	17.63	9.09	-1.93
Control	17.56	8.64	18.60	9.27	+1.04
Chance					
Experimental	16.19	7.81	14.22	8.48	-1.97
Control	15.44	8.92	14.08	8.93	-1.36

Table 8

Comparison of Means for Internal, Powerful Others and Chance Between Treatment and Control Groups



CI - Control Internal
CP - Control Powerful Others
CC - Control Chance

EI - Experimental Internal
EP - Experimental Powerful Others
EC - Experimental Chance

decision was to fail to reject the null hypothesis (F=0.139, df 1.50, p=.05). The pretest mean of the experimental group was 19.56 as compared to 17.56 for the control group. The posttest mean for the experimental group was 17.56 as compared to 18.60 for the control group. The experimental group decreased in their perceived control by powerful others, while the control group gained in that direction, but the changes were not statistically significant.

The third related hypothesis stated that there would be no differences in perceived control by chance. The statistical decision was to fail to reject the null hypothesis (F=0.791, df 1.50, p=.05). The pretest mean for the experimental group was 16.19 as compared to 15.44 for the control group. The posttest means were lower for both groups: 14.22 for the experimental group and 14.08 for the control group. Both groups decreased their perception of a locus of control from chance, although not significantly.

Social Readjustment

The third research question was whether there would be differences in the life events of the experimental group and the control group as measured by the Holmes and Rahe (1967) Social Readjustment Rating Scale (SRRS). The means and standard deviations are reported in Table 9. The F of 8.538 was found to be significant beyond the .01 level, and thus the null hypothesis of no difference was not accepted. There were significant differences between the means of the two groups as well as the variances. The treatment group had the highest mean score, 319.78. This placed them in the moderate life crisis category according to Holmes & Rahe. The mean 190.96 for the control group placed them in the stable life category. The variance was approximately

Table 9

Comparison of the Treatment and Control Groups on the Holmes & Rahe Social Readjustment Rating Scale

Group	Mean	Standard Deviation	F	F Prob
Experimental	319.78	38.00	8.538	0.0052
Control	190.96	20.32		

twice as large for the experimental group as for the control group. The scores for the treatment group ranged from 50 to 850, whereas the scores for the control group ranged from 61 to 356. The two groups differed on the dimension of social readjustment, with the experimental group experiencing significantly more life events over the past year than did the control group

Locus of Control and Life Events

The fourth research question asked if there was any relationship between life events as measured by the Holmes and Rahe Social Readjustment Rating Scale (SRRS) and locus of control measured by the Levenson Tridimensional Locus of Control Scale. Pearson Product Moment Correlations were computed among the three scales, for both pretest and posttest measures, and for the SRRS. The results are summarized in Table 10. There were no significant correlations between the Social Readjustment Scale and Locus of Control on the dimensions of internality for either the experimental group, control group, or combined groups on either the pretests or posttests.

The same pattern held true for the dimension of powerful others. There were no significant pretest or posttest correlations between Powerful Others and Social Readjustment for either the experimental group, control group, or the combined groups.

There was a significant correlation between Chance and Social Readjustment on the posttest for the treatment group. A correlation of .473 was computed and was significant at the .006 level. There were no significant differences for the control group but when the two groups were combined, the correlation of .254 was significant at the

Table 10

Pearson Product Moment Correlations Between the Social Readjustment Scale and the Levenson Tridimensional Locus of Control Scale

Scale	Groups (n)	Testing	
		Pre	Post
Internality	Experimental (n=27)	-.014	-.189
	Control (n=25)	-.269	-.288
	Total (n=25)	- 211	-.221
Powerful Others	Experimental (n=27)	.076	.319
	Control (n=25)	.203	.202
	Total (n=25)	.151	.226
Chance	Experimental (n=27)	.203	.473 p .006
	Control (n=25)	.227	-.084
	Total (n=25)	.199	.254 p .03

.03 level, with increases in life events correlating with increased perceptions of control by chance.

Conflict and Locus of Control

The fifth hypothesis stated, in general, that there would be no significant relationships between conflict and locus of control before or after the treatment. The Conflict scores were the pooled ratings from the RISB and locus of control was measured by the I/P/C. Overall there appears to be a better than chance relationship between internality and conflict for the participants of this study. The correlations are negative, indicating that internally oriented individuals tend to have less conflict. There was a significant better than chance relationship between powerful others and conflict. The pattern was not as consistent between Conflict and Chance across raters and test periods. These results are summarized in Table 11.

Conflict and Life Events

The sixth hypothesis stated, in general, that there would be no significant relationship between conflict and measured life events prior to and following treatment. The Pearson Product Moment Correlations are presented in Table 12. There was a consistent pattern across the total group indicating a better than chance relationship between conflict as measured by the RISB and life events as measured by the SRRS. The individuals with more conflict tended to have more experience with stressful life events. The decision was to fail to accept the null hypothesis.

Table 11

Correlation of Conflict with Locus of Control

Pre Control X Pre Conflict		Control	Post X Post Conflict
Internality			
Experimental (n=27)	-.221	Experimental (n=27)	-.315 (p=.012)
Control (n= 25)	-.354 (p=.042)	Control (n=25)	-.367 (p=.03)
Total (n=52)	-.335 (p=.008)	Total (n=52)	-.315 (p=.012)
Powerful Others			
Experimental (n=27)	.393 (p=.051)	Experimental (n=27)	.429 (p=.001)
Control (n=25)	.078	Control (n=25)	.482 (p=.005)
Total (n=52)	.269 (p=.027)	Total (n=52)	.429 (p=.001)
Chance			
Experimental (n=27)	.321	Experimental (n=27)	.195
Control (n=25)	.147	Control (n=25)	.149
Total (n=52)	.221	Total (n=52)	.195

Table 12

Pearson Product Moment Correlations
Between Conflict & Life Events

Group	Pre		Post	
	Rater 1	Rater 2	Rater 1	Rater 2
Experimental	.228	.333 (.045)	.124	.156
Control	.314	.451 (.012)	.548 (.002)	.623 (.000)
Total	.391 (.002)	.493 (.002)	.323 (.010)	.396 (.002)

Interaction Between Scales

The seventh question stated that there would be no significant differences between the groups prior to and following the treatment on measured conflict, locus of control, and measured life events. A two-way analysis of variance was computed on the pretest-posttest difference scales with life events as one variate and treatment group as the second variate. On the variate of life events, the samples were divided into two groups: above and below the median. The results of the ANOVA are summarized in Table 13.

Table 13

Summary Table of Two-Way Analysis of Variance Comparisons

Variable	F Ratio		
	Group	Level of Adjustment	Interaction
Two-Way Analysis			
Conflict	3.905	0.013	3.813
Internality	1.248	0.091	0.127
Powerful Others	3.825	0.032	0.089
Chance	0.133	2.439	2.076
Analysis of Covariance			
Internality	0.853		
Powerful Others	3.671 (.06)		
Chance	0.443		

No significant differences were found on any of the dependent variables when treatment group or level of social adjustment were utilized as variates.

Analysis of Covariance was also computed on each of the dependent variables with life events utilized as one of the covariates and the pretest utilized as the other covariate. The results of this analysis are also reported in Table 13. No significant differences were found on any of the dependent variables when treatment group or level of social adjustment were utilized as variates.

Analysis of Covariance was also computed on each of the dependent variables with Life Events utilized as one of the covariates and the pretest utilized as the other covariate. The results of this analysis are also reported in Table 13.

Summary

The constructs of conflict, life events and locus of control were statistically evaluated, both independently and interactively. The procedures and results are summarized in Tables 14 and 15.

Table 14

Summary of Instruments

Instrument	Constructs Measured
Social Readjustment Rating Scale (SRRS)	Life Events - weighted according to intensity and length of time necessary to accomodate to a life event regardless of the desirability of the event
Levenson's I/P/C	Locus of Control Internal Powerful Others Chance
Rotter's Incomplete Sentences Blank (RISB)	Projected Conflict/Maladjustment Addresses issues of adjustment in family, social, sexual, health, vocational, institutional, educational, interpersonal, and intrapersonal areas. It also deals with past events of control.

Table 15

Summary of Statistical Procedures

Null Hypothesis/Construct	Procedure	Level of Significance
1. Conflict	ANOVA of difference scores Pearson's r to establish interrater reliability	.05
2. Locus of Control	ANOVA of difference scores Paired t-tests	.94
3. Life Events	ANOVA	.005
4. Life Events x LOC	Pearson's Product Moment Correlation	
Internality	Pearson's r	n.s.
Powerful Others	Pearson's r	n.s.
Chance	Pearson's r	.03
5. Conflict X LOC		
Internality-Pretest	Pearson's r	.008
Internality-Posttest	Pearson's r	.012
Powerful Others-Pretest	Pearson's r	.027
Powerful Others-Posttest	Pearson's r	.001
Chance-Pretest	Pearson's r	n.s.
Chance-Posttest	Pearson's r	n.s.
6. Conflict X Life Events		
Pretest	Pearson's r	.002
Posttest	Pearson's r	.002
7. Life Events X LOC X Conflict	ANCOVA with the pretest as a covariate. Factorial Analysis of Covariance with treatment group and level of life events as variates.	n.s.

CHAPTER FIVE
DISCUSSION

Summary

This experimental study addressed the identification, intervention, and evaluation of stress-related variables among registered nurses. Initially this investigator identified and assessed the variables of recent life events, locus of control, and the level of projected conflict utilizing the Holmes & Rahe (1967) Social Readjustment Rating Scale (SRRS), Levenson's (1972) Tridimensional Locus of Control scale (I/P/C), and Rotter's (1950) Incomplete Sentences Blank (RISB), respectively. Intervention was in the form of a training group based on social learning, focusing on holistic health concepts directed at self awareness and individual responsibility for stress mastery among the experimental subjects. After statistically equalizing the groups on the basis of the amount of prior stress, the investigator measured and evaluated changes in conflict and locus of control.

The training approach used was one in which the facilitator(s) offered information in a flexible, non-evaluative format. The experimental group benefited from the training by assimilation of more effective stress mastery skills. Additionally, this group selected skills which had the greatest applicability to their respective lifestyles. The goal of the study was to generate self awareness among the participants, and encourage them to address and be responsible for their own individual needs in order to master stress. It was maintained that the ongoing skills required to master stress and its attendant

conflict could be transmitted using training methods and active group participation.

Fifty two nurses from a five-county area comprised the total sample. The experimental and control groups were comparable in terms of educational background, number of years in nursing, sex, salary, and hospital as well as nursing specialty representation.

There were significant differences found in the degree of life changes experienced between the treatment group and the control group in this study. The nurses in the experimental group (n=27), RN's attending a continuing education class on stress mastery, experienced higher levels of stress as measured by the life events survey, ($p=.005$) and more conflict as measured by the projective Incomplete Sentences Blank. At the completion of the intervention, the experimental group increased the perception of an internal locus of control and decreased the perception of control by powerful others. Conversely, the control group (n=25), RN's attending a class on professional issues in nursing, also raised the sense of internal control, but increased the perception of control by powerful others ($p=.06$). Both groups decreased the perception of control by chance. Although strong trends were evident, these changes were not statistically significant.

The treatment group experienced a significant ($p=.05$) decrease in the projected level of conflict from pre- to post treatment. However, changes among the control group on the level of conflict were not significant pre- to post treatment. When these changes were statistically evaluated using life events as a covariate in an attempt to equalize the groups, the changes were non-significant. Statistically, the SRRS accounted for less than one percent of the total variance.

Methodologically this presented a problem and indicated that the use of the Social Readjustment Rating Scale as a statistical variate might be inappropriate for a study of this type. The Rotter Incomplete Sentences Blank and Levenson's Internality/Powerful Others/Chance were considered useful tools for identifying and evaluating stress and its mastery.

Hypotheses Considered

The first hypothesis postulated was that there would be no difference in the degree of conflict experienced by members of the treatment group and members of the control group prior to or following the treatment. This hypothesis was not accepted. It was found that there was a significantly higher degree of conflict experienced by members of the treatment group, and further that the degree of this conflict was significantly ($p=.05$) reduced following the treatment for the experimental group.

The means and standard deviations for the normative group (Rotter and Rafferty, 1950) are listed as 127.4 (14.4) for females. In 1981, Rotter and Lah updated these means to 134.8 (18.7). Rotter suggests a general cutting score of 135 for separation between adjusted and maladjusted individuals and a cutting score of 110 for "pure" research. Scores ranging from 110 to 150 are considered most common. The scores in this study ranged from 103 to 169 for the experimental group and from 81 to 148 for the control group.

An interrater reliability of .94 was obtained for this study, using trained raters as well as utilizing the RISB manual for reference. Rotter obtained an interrater reliability of .96 for females in the validation studies.

The second hypothesis, which was not rejected, stated that there would be no difference in perceived locus of control, either in the direction of internality, powerful others, or chance following the treatment. Following the study, the treatment group increased the sense of internal locus of control to a degree ten times greater than did the control, although the change was statistically insignificant. Foulds (1977) found differences significant at the .001 level in a pretest/posttest control group design with a group of similar size and length. Chariff, Level, Smith and Duke (1980) found significant relationships between internal locus of control, job satisfaction and role clarity in nurses who had been in their positions for more than five years. The majority of the general duty nurses in this study had been in their present positions for less than one year.

The experimental group decreased the sense of control by powerful others following the treatment, while the control increased the sense of control from powerful others. While there were no previous studies found concerning this particular dimension, one should consider that the control group was participating in a very structured program while the experimental group was involved in a personal, growth-oriented program.

Both the experimental and control groups decreased the sense of control by chance by similar strengths.

Levenson (1972) reports means and standard deviations for a group of 51 females of: I=35.46 (7.41), P=14.64 (6.87), and C=13.38 (9.05). The pooled means for the experimental group were: I=37.51 (6.95), P=18.59 (8.27) and C=15.20 (8.15). These same scores for the control group were: I=38.96 (4.27), P=18.08 (8.96) and C=14.76 (8.92). Both

groups of nurses experience a higher sense of internal control than did Levenson's group of females, but they also perceive more control from powerful others and chance.

The third hypothesis was that there would be no difference in the life events as measured by the Social Readjustment Rating Scale between members of the treatment and control groups. There were wide differences between the two groups with the members of the treatment group experiencing more, severe life events events that the control group ($p=.005$). The pilot studies done in preparation for this study found that people enrolling in stress management classes were under moderate to severe life crises as measured by the SRRS which was apparantly true for the treatment group in this study. There were no members of the control group whose scores fell into the severe life crisis range while 23% of the treatment group scored in that range. The middle two ranges (mild and moderate life crisis) were approximately equally shared by both groups, but the stable range had only 26% of the experimental subjects as compared to 56% of the control subjects.

The fourth hypothesis dealt with relationships between measured life events and locus of control. Although there were no significant relationships between internality or powerful others and life events, it was found that those members of the experimental group that tended to encounter the most life changes also gave the most credit to chance as a controlling force in their lives ($p=.03$). The study by Sarason & Johnson(1977) specifically identifies an internal locus of control as a buffer against anxiety and adjustment to life events. Those researchers found that life changes have their most adverse effects on those people

perceiving the least amount of control over enviornmental events. The present study would seem to add confirmation to that conclusion.

The fifth hypothesis stated that no significant relationships between conflict and locus of control would be found either before or after treatment. Better than chance relationships were found between the internality score and the conflict score for the control group and the total sample on both the pretest and posttest comparisons. The total group significance levels were .008 and .012 for the pre- and post relationships for conflict and internal locus of control, and .027 and .001 for pre and post relationships for conflict and powerful others. The correlations were negative. People with higher internal locus of control tended to have lower conflict scores. The more conflict that was percieved from powerful others tended to be reflected in more projected conflict. There were no significant correlations between chance and conflict. In the study previously cited, Johnson and Sarensen specifically identify an internal locus of control with fewer adjustment problems.

The sixth hypothesis predicted no significant relationships between conflict and measured life events before or following the treatment. In general, for the total sample, there was a better than chance relationship between life events and conflict ($p=.002$ for pretest and posttest). Individuals who had experienced more stressful life events tended to have higher conflict scores.

The final hypothesis dealt with the interaction of the variables of conflict, locus of control and life events between the groups, both before and after treatment. No significant interactions were found between the dependent variables tested in this study when analysis of

covariance was computed with the pretest as a covariate or when groups were divided at the median on the pretest life events measurement.

Limitations

There are several limitations of this sample which might limit the generalizability of these results. The female gender exclusivity precludes comparison to males. The occupational exclusivity precludes comparison to any occupation other than nursing. Because the sample was 96% white, the manifestations of stress and the issues of conflict, locus of control, and life events within a minority subculture cannot be adequately related to the findings in this study.

The two groups were equal in the distribution of basic nursing preparation, with the majority of both groups having been educated in the two-year associate degree programs. Both groups had small portions with some type of certification, i.e., specialized training in a particular field of nursing. There were differences in the household/marital status/living arrangements of the two groups. Almost half the members of the control group had no children, and one-third of the control group was unmarried. More of the treatment group was married, and more had children in the 6 to 12 year old range. Members of the treatment group had a total of 67 children as compared to the control group, whose members had 40 children among them. The sample size was small with only 27 in the experimental group and 25 in the control group. Small samples require greater differences in order to be statistically significant.

The members had a variety of reasons for volunteering for the study. Most members of the treatment group indicated that stress was a current problem for them and they sought some assistance in dealing

with it. This was confirmed by the distribution of SRRS scores which also indicated high levels of life events in the lives of the treatment group. The range of the SRRS scores for the control group was not as great, although many of them had experienced sufficient changes dueing the past year to place them in the mild and moderate life crisis categories. Only the control group had no members in the highest category of severe life crisis while 28% of the members of the experimental group scored in that category.

Regarding the problematic definition of stress, it must be noted that behavior is not a collective perception, but rather behavior is the result of an individuals perception of the enviornment. This study investigated perseptions as reflected by group mean scores, whereas perhaps it would have been more valid to investigate individual perceptions and changes.

The two most basic limitations of this study may have been the difficulties of conduction holistic "research" in an uncontrolled setting, and the threat of experimentor bias. It was difficult to obtain a statistical model that was compatible with the conceptual model—a problem that has been consistently encountered in holistic research. This study sought to encompass and schedule many facets of stress--and its ultimate mastery--into the limited number of sessions. It is difficult, at best, to measure something as dynamically multidimensional as holism with such limited tools.

In order to avoid the threat of experimentor bias, this study adhered to the teaching guide. Whether using the principal investigator or guest experts, the integrity of the curriculum design was maintained. The results of the course evaluation are offered as evidence that each

participant was allowed to select that information which was most personally meaningful, and the wide range of topics stated as being beneficial indicates that participants were indeed free to select and were not coached. However, experimentor bias may still have been present.

Conclusions

Within the limitations previously discussed, the following conclusions can be drawn from the results of this study:

1. The nurses who enrolled in the stress management course were significantly more likely to have experienced more stressful life events than nurses who enrolled in courses of advanced study.

2. A facilitated training intervention can significantly decrease perceived conflict among nursing volunteers in a stress management course.

3. The nurses who volunteered for the stress management course had a lower sense of internal control that did the nurses taking the advanced course, but the increase in the sense of internal control was ten times greater for the experimental group as for the control group.

4. The nurses in the stress management course initially had a higher sense of control by powerful others, but this source of perceived control was decreased by the training sessions. The nurses without training sessions may increase the perception of control by powerful others when in highly structured courses of advanced study.

5. Nurses in both types of courses will probably decrease the perception of control by chance.

6. The interactions of these constructs of life events, locus of control and conflict are not statistically significant.

Implications for Theory

When examining the constructs of conflict, life events and locus of control, there are several theoretical implications.

Life events have a proven place in literature, and in understanding, predicting and directing behavior. This study would seem to confirm that life events are a valid concept, but not useful as a statistical measurement. The primary researchers in life events make this statement and it seem worthy of acknowledgement.

Conflict, whether one is discussing anxiety, stress or maladjustment, is a less researched area. The RISB is a useful measure of conflict, and more importantly, seems to be sensitive to the changes in conflict that would indicate that some treatment has been effective in altering that level of conflict. The specific reason for this is likely to be that conflict is so problematic to define. Research validates that "stress" does exist, and that it has far-reaching health implications. There researchers seem obligated to continue to attempt to refine the definition and assessment of it.

Locus of control is a construct that has been investigated for more that two decades. The two questions that consistently remain are whether or not it is a dynamic personality preference or a static personality trait. If it is the former, then it can be influenced and altered, and if it is the latter, then theoretically it cannot be altered. Changes that occurred in this and other research would then lead credence to the concept that locus of control is a dynamic personality preference. The devlopments of tools which measure the two dimensions of externality seem to be valid. More research into that area would add to the body of knowledge of control by powerful others and/or control by chance.

Implications for Practice

When examining the constructs of life events, locus of control and conflict, there are several implications for counselors in practice.

Life events play an important part in the adjustment of most individuals, and at times individuals experiencing a great deal of distress may also be experiencing many life changes. Knowledge of stress theory would enable the counselor to assist the client in reviewing and assessing the life events and in making more appropriate adjustments to them.

A key focus of therapy is to assist the client in assuming the responsibility for his/her own actions, i.e., gaining an internal locus of control. An understanding of those areas in a clients' life in which s/he experiences personal control, and those in which s/he feels controlled by powerful others are qualitatively different from those situations when control is attributed to chance. The effective counselor will realize that at times s/he will be in the role of a "powerful other" to the client and will use this position judiciously.

Conflict is a constant companion of a client entering therapy and may be one of the most difficult for the therapist to evaluate. Counselors are always in need of useful, reliable, and valid assessment tools. This study suggests that the RISB as a projective test meets that need. The possibilities for counselors to add to their repetoire a test that has the capacity to tap more areas, and that can be objectively scored, takes the projective test away from the mystical realm of the unknown and places it in the arena of practical usefulness for both clients and

counselors. In an era when accountability is an issue, the RISB provides a vehicle for that accountability to occur. The measurement of conflict perceived by a client, and its subsequent reduction following therapy add credibility and measurability to the process of counseling.

There are some questions as to the advantage or disadvantage of reviewing test data prior to the beginning of a class. If one is seeking to actively engage participants in methods of stress mastery, then knowing the general concerns of the group would enhance facilitation of the group discussions, and subject matter could be deleted or emphasized as dictated by the needs of the group.

Implications for Research and Recommendations for Further Study

This study of the constructs of life events, conflict and locus of control has given rise to several implications for research and recommendations for further study.

Levenson's measure of control (I/P/C) addresses each of the dimensions of control, and is sensitive to changes within these groups. The issue of control of one's life is so central to the focus of counseling that the identification and enhancement of an internal locus of control is justified. Whether these changes can be maintained, and for what lengths of time, needs more investigation. When changing perceptions within oneself, time is essential to process and integrate these changes on a stable basis.

Rotter's Incomplete Sentences Blank is a good measure of the dynamic continuum of adjustment-conflict, and is able to reflect overall changes in the state of adjustment in individuals. It worked

well as a pretest/post measurement device. The high interrater reliabilities compared well to those obtained by the raters trained by Rotter and indicate the adequacy of the manual for use in scoring the RISB. The time needed to administer the RISB make it useful to administer to groups, although the necessary hand scoring takes a major amount of time.

The use of the Social Readjustment Rating Scale (SRRS) as a teaching tool is advantageous. The authors of this scale point out that it has a small but reliable predictability of future illness, but that is insufficient as the lone predictor and this study confirms that point. The SRRS accounted for very little variability and may have skewed the results of the study.

Several recommendations for further study are offered. As must be expected from a group this small, one logical recommendation is replication with larger numbers. If additional nurses are utilized, the resultant data could be pooled with this data. If the subjects represent other professions, new sets of data could be derived and compared with those already available herein.

It was frequently mentioned by the participants in this study, and an opinion shared by the principal investigator, that the sessions needed to be closer together in time. Two and a half hour sessions on a weekly basis would encompass the same time frame over ten weeks, but would give more immediate feedback and reinforcement to the newly learned techniques and information.

Personality typing is useful in looking at how people differ in the way they cope with change and conflict and would add a valuable

dimension to a study of this type. The Myers-Briggs Type Indicator is a personality measure that yields such information, and fits into a holistic concept.

A future study would benefit by building into the analysis a method for statistical evaluation of demographic variables. Valuable information is lost when these are not considered.

There are some questions as to the advantage or disadvantage of reviewing the pretest data prior to the beginning of the training sessions. To maintain a true experimental base, data must remain blind.

In addition to the usual ethical safeguards when conducting research with human subjects, two ethical principles must additionally be addressed. Participants need to have the nature of the research clarified at the end of the research, when all data are completed, in a timely manner. Ethical principles note that at times the investigator may discover things about the participants that could be upsetting or damaging to his self esteem if revealed. The question is then raised as to whether full post investigation disclosure is necessary, or even appropriate. The basic conflict is between the obligation to fully inform and the desire to avoid any harm. In order to avoid having to decide between keeping secret from the participant some important, but possibly damaging information or giving disturbing news not bargained for in the spirit of volunteering as a research subject may be avoided by anticipating its development and making suitable arrangements with each participant in advance. The primary consideration in selecting alternate actions is the welfare of the participants. These ethical considerations are strongly recommended for a replication of this study.

APPENDIX A
LETTER TO PARTICIPANTS

September 1, 1983

Dear

Thank you for volunteering to participate in the Nursing Stress Management Research. This research course uses registered nurses as subjects. The subject is stress management, and will cover aspects of the processes of stress including its management, modifiers and mediators. This study is predicated on the assumption that nurses are representative of professions subjected to high stress levels. It is maintained that the ongoing skills required to master stress can be transmitted using consultation methods. The treatment will be a holistic presentation of the various skills and knowledge necessary to master stress, and includes social, psychological, and biophysical concepts.

The consultant/principal investigator is Nancy Patterson, ARNP. The study is being conducted as part of a doctoral study through the Department of Counselor Education at the University of Florida. Any questions may be directed to Ms. Patterson at 904/724-6744.

All sessions will be held at the University of North Florida Campus, Building 2, Room 2060. You are in the class indicated below.

Dates and times are as follows:	Morning Class	Afternoon Class
September 14, 1983 (Wednesday)	8:00 to 12:00	1:00 to 5:00
September 28, 1983 (Wednesday)	8:00 to 12:00	1:00 to 5:00
October 12, 1983 (Wednesday	8:00 to 12:00	1:00 to 5:00
October 26, 1983 (Wednesday)	8:00 to 12:00	1:00 to 5:00
November 9, 1983 (Wednesday)	8:00 to 12:00	1:00 to 5:00
November 23, 1983 (Wednesday)	8:00 to 12:00	1:00 to 5:00
November 30, 1983 (Wednesday)	Any time between 8:00 and 5:00	

Approximately one hour needed for post treatment measurements.

You will need: a notebook and pen and pencils. A colored highlighter will be very useful. All other supplies will be provided. You will also need to bring a small pillow, and dress casually (slacks).

Temporary parking permits which will cover the entire 12 weeks are available from the Campus police. They are located in Building 4, Room 1401, which is indicated on the enclosed map. Early morning parking is not a problem. However, those in the afternoon class will need to allow time for parking. You may pick up your temporary parking permit any time the first day of class. You will need to stop at the visitor's booth at the entrance for a temporary permit on your first day.

There are several places to eat on campus, and the choices range from fast foods--hamburgers, etc., to cafeteria selections of main courses, and fruit and salad bars and soups. Dining by the lake is a pleasant experience. You may wish to come early or stay late and browse through the new UNF Library. Again, thank you for participating, and I look forward to seeing you on the 14th.

Sincerely,
NANCY PATTERSON

Enclosure

APPENDIX B
SOCIAL READJUSTMENT RATING SCALE

Thomas Holmes and Richard Rahe of the University of Washington School of Medicine developed this scale to measure relative stress induced by various changes in a person's life. It does not matter if any of these events was expected or unexpected, nor if the event was desirable or undesirable.

Event	Life Change Units
Death of a spouse	100
Divorce	73
Marital separation	65
Detention in jail or other institution	63
Death of a close family member	63
Major personal injury or illness	53
Marriage	50
Fired at work	47
Marital reconciliation	45
Retirement	45
Major change in behavior or health of family member	44
Pregnancy	40
Sexual difficulties	39
Gaining new family member (birth/adoption/moving in)	39
Major business readjustment (merger/bankruptcy/reorganization)	39
Major change in financial state (much better or worse)	38
Death of a close friend	37
Major change in responsibilities at work (promotion/transfer)	36
Major change in number of arguments with spouse (more/less)	35
Taking on a mortgage greater than $10,000	31
Foreclosure on a mortgage or a loan	30
Change in responsibilities at work	29
Son/daughter leaving home (marriage/attending college)	29
Trouble with in-laws	29
Outstanding personal achievement	28
Wife begins or stops work	26
Beginning or ceasing formal schooling	26
Change in living conditions	25
Revision of personal habits (dress/manner/associations)	24
Trouble with boss	23
Major change in working hours or conditions	20
Major change in living conditions (new home/remodeling)	20
Change in schools	20
Major change in usual type of and/or amount of recreation	19
Major change in church activity (more or less)	19
Major change in social activities (clubs/movies/visiting)	18
Taking on a mortgage or loan of less than $10,000	17
Major change in sleeping habits (more/less/different)	16
Major change in number of family get-togethers	15
Major change in eating habits	15
Vacation	13
Minor violations of the law	11

APPENDIX C
LEVENSON'S INTERNAL/POWERFUL OTHERS/CHANCE

Name_____ Date_____

On the other side of this sheet is a series of attitude statements. Each represents a commonly held opinion. There are no right or wrong answers. You will probably agree with some items and disagree with others. We are interested in the extent to which you agree or disagree with such matters of opinion.

Read each statement carefully. Then indicate the extent to which you agree or disagree by circling the number following each statement. The numbers and their meanings are indicated below:

If you agree strongly: circle +2
If you agree somewhat: circle +2
If you agree slightly: circle +1

If you disagree slightly: circle -1
If you disagree somewhat: circle -2
If you disagree strongly: circle -3

First impressions are usually best. Read each statement, decide if you agree or disagree, and the strength of your opinion, and then circle the appropriate number.

GIVE YOUR OPINION ON EVERY STATEMENT

If you find that the numbers to be used in answering do not adequately reflect your opinion, use the one that is closest to the way you feel. Thank you.

(Do not write in this area)

I scale: (raw) _____ +24=_____

P scale: (raw) _____ +24=_____

C scale: (raw) _____ +24=_____

	Strongly Disagree	Disagree Somewhat	Slightly Disagree	Slightly Agree	Agree Somewhat	Strongly Agree
1. Whether or not I get to be a leader depends mostly on my ability.	-3	-2	-1	+1	+2	+3
2. To a great extent my life is controlled by accidental happenings.	-3	-2	-1	+1	+2	+3
3. I feel like what happens in my life is mostly determined by powerful people.	-3	-2	-1	+1	+2	+3
4. Whether or not I get into a car accident depends mostly on how good a driver I am.	-2	-2	-1	+1	+2	+3
5. When I make plans, I am almost certain to make them work.	-3	-2	-1	+1	+2	+3
6. Often there is no chance of protecting my personal interests from bad luck happenings.	-3	-2	-1	+1	+@	+3
7. When I get what I want, it's usually because I'm lucky.	-3	-2	-1	+1	+2	+3
8. Although I might have good ability, I will not be given leadership responsibility without appealing to those in positions of power.	-3	-2	-1	+1	+2	+3
9. How many friends I have depends on how nice a person I am	-3	-2	-1	+1	+2	+3
10. I have often found that what is going to happen will happen.	-3	-2	-1	+1	+2	+3
11. My life is chiefly controlled by powerful others.	-3	-2	-1	+1	+2	+3
12. Whether or not I get into a car acci-- dent is mostly a matter of luck.	-3	-2	-1	+1	+2	+3
13. People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups.	-3	-2	-1	+1	+2	+3

	Strongly Disagree	Disagree Somewhat	Slightly Disagree	Slightly Agree	Agree Somewhat	Strongly Agree
14. It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.	-3	-2	-1	+1	+2	+3
15. Getting what I want requires pleasing those people above me.	-3	-2	-1	+1	+2	+3
16. Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time.	-3	-2	-1	+1	+2	+3
17. If important people were to decide they didn't like me, I probably wouldn't make many friends.	-3	-2	-1	+1	+2	+3
18. I can pretty much determine what will happen in my life.	-3	-2	-1	+1	+2	+3
19. I am usually able to protect my personal interests.	=3	=2	=1	+1	+2	+3
20. Whether or not I get into a car accident depends mostly on the other driver.	-3	-2	-1	+1	+2	+3
21. When I get what I want it's usually because I worked hard for it.	-3	-2	-1	+1	+2	+3
22. In order to have my plans work, I make sure that they fit in with the desires of people who have power over me.	-3	-2	-1	+1	+2	+3
23. My life is determined by my own actions.	-3	-2	-1	+1	+2	+3
24. It's chiefly a matter of fate whether or not I have a few friends or many friends.	-3	-2	-1	+1	+2	+3

Scale	Items	Interpretation
Internal Scale	(1, 4, 5, 9, 18, 19, 21, 23)	High score indicates that the subject expects to have control over his or her own life. Low score indicates that the subject does not expect to have control over his or her own life.
Powerful Others Scale	(3, 8, 11, 13, 15, 17, 20, 22)	High score indicates that the subject expects powerful others to have control over his or her life. Low score indicates that the subject expects powerful others do not have control over his or her life.
Chance Scale	(2, 6, 7, 10, 12, 14, 16, 24)	High score indicates that the subject expects chance forces (luck) to have control over his or her life. Low score indicates that the subject expects chance forces do not control his or her life.

Scoring and Interpretation for the I, P, and C Scales

There are three separate scales used to measure one's locus of control: Internal Scale, Powerful Others Scale, and Chance Scale. There are eight items on each of the three scales, which are presented to the subject as one unified attitude scale of 24 items. The specific content areas mentioned in the items are counterbalanced so as to appear equally often for all three dimensions.

To score each scale add up the points of the circled answers for the items appropriate for that scale. (These items are listed on p. 59.) Add to this sum +24. The possible range on each scale is from 0 to 48. Each subject receives three scores indicative of his or her locus of control on the three dimensions of I, P, and C. Empirically, a person could score high or low on all three dimensions.

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Lefcourt, H. M. (ed.). Research with the locus of control construct. New York: Academic Press, 1981.

APPENDIX D
FORMAT OF HOLISTIC HEALTH TRAINING SESSIONS FOR STRESS MASTERY

FORMAT OF HOLISTIC HEALTH TRAINING SESSIONS FOR STRESS MASTERY

Prospectus

This course identifies, in a holistic approach to personal and community care, ways people can augment or interfere with well-being in areas of nutrition, exercise, relaxation, rational thinking, social support systems and spiritual self-development. It will measure the constructs of life events, conflict and locus of control.

Textbook

Girdano, D., and Everly, G. Controlling stress and tension: A holistic approach. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1979.

Goals and Objectives

1. To increase self-awareness and self responsibility through holistic health consultation.

2. To enhance commitment to a lifestyle that enhances well-being.

3. To apply knowledge of theories taught to one's self through the use of evaluative tools and individual interpretation.

4. To increase awareness of the relationship of the General Adaptation Syndrome and the state of tension; to learn that tension and relaxation cannot exist together; to provide multiple opportunities to practice various relaxation techniques including progressive muscle relaxation, autogenic phrases, guided principles of oxygen consumption and utilization to integrate concepts of relaxation as being aids in returning the body to a state of hemeostasis.

5. To present theories and exercises or skills related to time management, exercise, nutrition, change, social support systems, rational thinking, and communication in such a manner that participants will gain needed skills to master individual stress.

Procedures

Theories and exercise will be presented in a variety of teaching methods, including lecture, discussion, self-report, small groups, role-playing, demonstrations, group exercises, brainstorming,

journals, and informal sharing. Videotapes, audiotapes, and slide-tape presentations will be utilized.

Homework Assignments

Homework assignments for increasing self-awareness will be given on a voluntary weekly basis.

Suggested Readings from Textbook

Textbook assignments for increasing knowledge and self-awareness will be given on a voluntary weekly basis.

Facilitator Preparation

Specific bibliographic references will be given for each session. The facilitator is responsible for reading all the material prior to the training session in order to be fully prepared for the topics to be presented.

Theoretical Perspectives

The theoretical perspectives for this training session include:

Assagioli (1965) Psychothesynthesis
Berne (1967) Transactional Analysis
Combs & Snygg (1949) Phenomenology
Ellis (1975) Rational Emotive Thinking
Holmes & Rahe (1967) Life Events
Horney (1950, 1945) Self Concept and Personality
Jacobsen (1938) Relaxation
Jung (1964) Personality Typology
Kaplan (1977) Social Support
Knowles (1950) Andragogy
Krieger (1981) Holism
Lakein (1973) Time Management
Levenson (1972) Locus of Control
Luthe (1969) Autogenic Therapy
Maslow (1954, 1970) Motivation and Human Needs
Progoff (1975) Intensive Journal
Rogers (1951) Communication
Rotter (1950) Conflict
Rotter (1954) Social Learning
Rotter (1966) Locus of Control
Roy (1970) Adaptation
Ryan & Travis (1981) Holism
Satir (1972) Communication
Selye (1974) Stress and Adaptation
Super (1954) Self Concept Vocational Theory
Yura & Walsh (1982, 1983) Human Needs

ORIENTATION SESSION

Goals and Objectives

1. To get to know group members.

2. To set trusting, open climate for comfortable sharing of ideas and f-elings.

3. To set limits of confidentiality.

4. To orient participants to the purpose and structure of the training sessions.

5. To collect data.

   a. Consent forms

   b. Knowledge and Awareness Questionnaire

   c. Social Readjustment Rating Scale

   d. Levenson's I/P/C Scale

   e. Rotter's Incomplete Sentences Blank

   f. Myers-Briggs Type Indicator

Procedure

1. Introductory presentation (15 minutes). The general purpose of the research is presented, along with a general summary of the topics to be covered. The special nature of research, as opposed to a general class, is defined, especially related to confidentiality and the use of group scores.

2. Begin data collection (30 minutes). Consent forms are signed and witnessed, and Knowledge and Awareness Questionnaires are completed.

3. Exercise: Why we are here and getting acquainted (60 minutes). The group is divided into dyads, with each dyad having 10-15 minutes to get acquainted. Following the dyads, the group re-assembles and each person introduces her partner by sharing what they learned about that person. It is important to have the dyads made up of people who do not know each other. Following the introductions the facilitator summarizes the reasons for attending the class, and reminds participants that this sharing format will be part of the training sessions.

4. Orientation to facilities (20 minutes). A walking tour to locate parking facilities, dining areas, phones, library, and restrooms is an opportunity for a physical break and informal discussion.

5. Complete Data Collection (60-90 minutes). Begin with Social Readjustment Rating Scale. It can be scored while participants are continuing to write. Follow with Levenson's I/P/C. It takes only approximately 10 minutes to complete. Directions are read directly from the test sheet. When those are complete distribute Rotter's Incomplete Sentences Blank. This will take longer to complete. Directions are read directly from the test sheet. The final test to be taken is the Myers-Briggs Type Indicator. Directions are printed on the booklet. Members may leave as it is completed.

Facilitator Preparation

Caplan, G. Mastery of stress: Psychosocial aspects. American Journal of Psychiatry, 1981, 138 (4), 413-420.

Claus, K., & Bailey, J. T. Living with stress and promoting well-being. St. Louis, MO: CV Mosby Company, 1980.

Churchill, R. & Crandall, V. J. The reliability and validity of the Rotter Incomplete Sentences test. Journal of Consulting Psychology, 1955, 19 (5), 345-350.

Daly, N. Andragogy: Implications for secondary and adult educational programs, 1980, ED 186 627.

Flynn, P.A.R. Holistic health--The art and science of care. Bowie: MD, Robert J. Brady Co., 1980.

Frain, M., & Valiga, T. The multiple dimensions of stress. Topics in Clinical Nursing, 1979, 1 (1), 43-53.

Holmes, T. & Rahe, R. H. The social readjustment rating scale. Journal of Psychosomatic Research, 1967, 11, 213-218.

Jasmin, S. A., Hill, L., & Smith, N. Keeping your delicate balance--The art of managing stress. Nursing, June, 1981, 53-57.

Johnson, J. H. & Sarason, I. G. Life stress, depression and anxiety: Internal-external control as a moderate variable. Journal of Psychosomatic Research, 1977, 22, 205-208.

Levenson, H. Distinctions within the concept of internal-external control: Development of a new scale. Proceedings of the 80th Annual Convention of the APA, 1972, 261-262.

Menninger, R. W. Coping with life's strains. US News and World Report, May 1, 1978, 80-83.

Pearlin, L. I., Lieberman, M. A., Menaghan, E. G. & Mullan, J. T. The stress process. Journal of Health and Social Behavior, 1981, 22, 337-356.

Rotter, J. B., Chance, J. E., & Phares, E. J. Applications of a social learning theory of personality. NY: Holt, Rinehart & Winston, 1954, 1972.

Rotter, J. B. & Rafferty, J. Manual for the RISB college form. NY: The Psychological Corporation, 1950.

Sharp, R. & Lewis, D. Thrive on stress. Andersonville, IN: Warner, 1977.

Wallis, C., Galvin, R. M., & Thompson, D. Stress: Can we cope? Time, June 5, 1983, 48-54.

SESSION ONE

Goals and Objectives

1. To understand general stress theory.

2. To be able to define homeostasis, alarm, resistance and exhaustion stages of the G.A.S.

3. To identify and assess areas of personal stress; to increase the participants' awareness of sources of change as stress.

4. To assess the degree of individual life changes over the past year; to assess the probable susceptability to illness.

5. To identify personal stressors and responses.

6. To be able to differentiate between stress (change), eustress, and distress.

7. To introduce the general overview approach of the training material, i.e., health oriented; and that attention will be given to a variety of systems and approaches.

Procedure

1. Brainstorming Session (45 minutes). Participants list as mamy sources of stress as they can think of on the board. It will be extensive but will probably include:

death	children
finances	relationships
losses	time demands
job-related stress	weddings, births, etc.

The facilitator points out that not all of these stressors are negative, and begins to point out that stress is considered change

in the environment that causes change in our system, and it may be pleasant or unpleasant, planned or uncontrolled.

2. Slide Presentation (30 minutes). A pictorial representation of the holistic approach to stress mastery and well-being. It includes change, control, relaxation, exercise, nutrition, self concept. (Available from Counseling Services, Inc., Jacksonville, FL.)

3. Discussion of Selye's General Adaptation Syndrome, and to integrate it into theories of life events (30-45 minutes).

4. Lecture, "Types of Stress" (45 minutes). Lecture covers definitions of "eustress," "stress," and "distress" and how the level of either will increase the intensity of that stressor. Further lecture discusses how stress may be considered a threat either physically, psychologically, socially or environmentally. When these categories are listed across the board, participants are invited to take any event(s) from the brainstorming session and see how they relate. Usually, the stressor falls into all four categories; for example: divorce is both a physical and psychological separation, calls for social changes and sometimes involves moving to a different dwelling.

   The final portion of this lecture focuses on acute, chronic and specific stressors. Discussion centers on how these affect our lives and what we can (or cannot) do about them.

Relaxation

Introduction to diaphragmatic breathing; progressive muscle relaxation (30 minutes). Available from Counseling Services, Inc., Jacksonville, FL.

Homework Assignment

Stress Indicators
Cardiac Bingo
How long will you live?

Suggested Reading from Textbook

Chapter Eight

Facilitator Preparation

Benson, H. The relaxation response. NY: Avon, 1975.

Girdano, D. & Everly, G. Controlling stress and tension: A holistic approach. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1979.

RELAXATION RECORD

SESSION/TYPE	BEGINNING PULSE RATE	ENDING PULSE RATE	REACTION
ONE			
Progressive Muscle Relaxation	_____	_____	_____
			_____
			_____
TWO			_____
Visual Imagery/ Seashore	_____	_____	_____
			_____
			_____
THREE			_____
Autogenic Phrases	_____	_____	_____
			_____
			_____
FOUR			_____
Fantasy/ Walk Through a Rainbow	_____	_____	_____
			_____
			_____
FIVE			_____
Wise Old Person	_____	_____	_____
			_____
			_____
			_____

INDICATORS OF STRESS

Circle all the indicators of stress that you have ever experienced; then go back and highlight the ones that you currently experience.

PHYSICAL

Allergies
Hay fever
Asthma
Difficult breathing
Chest-tightness
Muscle tension
Trembling
Tics/Twitching
Shaking
Colitis
Constipation
Diarrhea
Indigestion
Nausea
Overeating
Loss of appetite
Weight changes
Ulcers
Stomach gas
Stomach butterflies
Vomiting
Dizziness
High blood pressure
Rapid heartbeat
Pounding heart
Cold extremities
Numb or tingling extremities
Frequent urination
Backaches
Dry mouth
Flushed face
Skin pale
Premenstrual syndrome
Migraine headaches
Tension headaches
Low resistance to infection
Sweaty palms
High cholesterol
Dilated pupils

BEHAVIORAL

Alcohol use
Drug use
Accident prone
Sexual difficulty
Sexual disinterest
Stuttering
Rapid speech
Slow speech
Voice changes
Smoking
Competitiveness
Gait slowed
Hyperactivity
Nail biting
Hair twisting
Grinding teeth
Grimacing
Frowning
Insomnia
Nightmares
Sleeping too much
Slumped posture
Sighing
Tearfulness
Fatigue
Non-productive activity
Uncoordinated actions

SOCIAL

Decline in social activities
Decline in hobbies
Loss of jobs
Arguments with others
Withdrawal from relationships
Fear of groups or crowds
Critical of others
Difficulty in relationships
Blaming others

EMOTIONAL

Anger
Agitation
Crying
Depression
Guilt feelings
Hyper-excitability
Impulsivity
Irritability
Jealousy
Moodiness
Restlessness
Sadness
Suspiciousness
Feelings of worthlessness
Anxiety
Fearful
Critical of self
Dread
Worry
Thoughts of death or suicide
Loss of initiative
Loss of self esteem

INTELLECTUAL

Concentration difficulty
Grammar errors
Number errors
Fantasy increases
Fantasy decreases
Forgetfulness
Inattention
Distracted
Lack of attention to details
Loss of creativity
Loss of productivity
Mental blocking
Past Orientation
Perfectionism
Detail-oriented

**These divisions are for convenience. They are not necessarily mutually exclusive.

CARDIAC BINGO

Rate Your Risk of Having a Heart Attack

Despite a drastic decline in the number of deaths in the 1970's attributed to disease of the heart and blood vessels, it still remains the nation's No. 1 killer--far ahead of second place cancer. Nonetheless, the decrease in deaths by more than 20% in the last decade is encouraging.

To find out how you stack up as a risk for heart attack, we invite you to play along in a game of "cardiac bingo." It was devised originally by the Michigan Heart Association to help individuals measure their risk of suffering a heart attack. Obviously, a high score does not mean you definitely will have a heart attack; nor does a low score make you immune from risk. The scores, however, do indicate a likelihood of what might occur.

To play, simply study each of the eight factor rows on the "bingo" chart. When you find the box in each row that best describes your situation, circle the big number. For example, if you are 36 years old, circle the "3" in the box labeled 31-40. After completing the exercise, add up the eight circled numbers for your score.

Following are some things to consider as you play "cardiac bingo."

Heredity: Count parents, grandparents, brothers and sisters who have had heart attacks or strokes.

Smoking: If you inhale deeply and smoke cigarettes down so far they nearly scorch your fingers, increase your risk factor in this row by one. You do not, however, get to subtract one if you think you do not inhale or if you smoke only the first half-inch of each cigarette.

Exercise: Lower your score one point if you exercise regularly and frequently.

Cholesterol or Fat Intake: A cholesterol blood level taken by your doctor is the most accurate way to determine your risk factor in this category. If you have not had such a test, ignore the boxes containing numbers "1" and "2." Then honestly estimate the percentage of solid fats you eat. These usually are of animal origin (lard, crea, butter, beef and lamb fat). If you eat much of these foods, your cholesterol level is probably high. The U. S. average of 40% is too high for good health, physicians say.

Blood Pressure: If you have not had a recent reading, but have passed an examination for insurance or work, you are probably 140 or less.

Sex: This category takes into account the fact that men have from six to 10 times more heart attacks than women of childbearing age.

Adapted from: Kansas City Life Insurance Company, Kansas City, MO: 1982.

CARDIAC BINGO

AGE	1 10 to 20	2 21 to 30	3 31 to 40	4 41 to 50	6 51 to 60	8 61 & over
HEREDITY	1 No known history of heart disease	2 1 relative with cardiovascular disease over 60	3 2 relatives with cardiovascular disease over 60	4 1 relative with cardiovascular disease under 60	6 2 relatives with cardiovascular disease under 60	8 3 relatives with cardiovascular disease under 60
WEIGHT	0 More than 5 lbs below standard weight	1 -5 to +5 lbs standard weight	2 6-20 lbs overweight	3 21-35 lbs overweight	5 36-50 lbs overweight	7 51 or more lbs overweight
TOBACCO SMOKING	0 Non-user	1 Cigar and/or pipe	2 10 cigarettes or less a day	4 20 cigarettes a day	6 30 cigarettes a day	10 40 cigarettes or more a day
EXERCISE	1 Intensive occupational and recreational exertion	2 Moderate occupational and recreational exertion	3 Sedentary work and intense recreational exertion	4 Sedentary occupational and moderate recreational exertion	5 Sedentary work and light recreational exertion	8 Complete lack of all exercise
CHOLESTEROL OF FAT % IN DIET	1 Cholesterol below 180 mg Diet contains no animal or solid fats	2 Cholesterol 181-205 mg Diet contains 10% animal or solid fats	3 Cholesterol 206-230 mg Diet contains 20% animal or solid fats	4 Cholesterol 231-255 mg Diet contains 30% animal or solid fats	5 Cholesterol 256-280 mg Diet contains 40% animal or solid fats	7 Cholesterol 281 or more mg Diet contains 50% or more animal or solid fats

BLOOD PRES-SURE	1 100 upper reading	2 120 upper reading	3 140 upper reading	4 160 upper reading	6 180 upper reading	8 200 or more upper reading
SEX	1 Female under 40	2 Female 40-50	3 Female over 50	5 Male	6 Stocky male	7 Bald stocky male

If You Score:

6 - 11 Your risk is well below average.
12 - 17 Your risk is below average.
18 - 24 Your risk is generally average.
25 - 31 Your risk is moderate.
32 - 40 Your risk is dangerously high
41 - 62 You probably are in urgent danger and should see a doctor immediately!

HOW LONG WILL YOU LIVE?

The following life-expectancy quiz is one of the many health questionnaires now used by doctors, medical centers and insurance groups. While quizzes are not precise, they do give a realistic picture of probable longevity. In addition to heredity patterns and medical history, current computations try to measure risk in relation to environment, stress and general behavior, though statisticians and experts do not always agree on how to weigh the components. For example, a high salary may not be as detrimental to longevity--because of competitive stress--as many quizzes suggest. On the other hand, marriage or living together, usually assumed to increase one's chances of living longer, may actually increase stress, especially for notably embattled partners. National average life spans: 70.5 for white males, 65.3 for all other males; 78.1 for white females, 74 for all other females.

Start with the number 72.

Personal Facts

If you are male, subtract 3.

If female, add 4.

If you live in an urban area with a population over 2 million, subtract 2.

If you live in a town under 10,000 or on a farm, add 2.

If any grandparent lived to 85, add 2.

If all four grandparents lived to 80, add 6.

If either parent died of a stroke or heart attack before the age of 50, subtract 4.

If any parent, brother or sister under 50 has (or had) cancer or a heart condition, or has had diabetes since childhood, subtract 3.

Do you earn over $50,000 a year? Subtract 2.

If you finished college, add 1. If you have a graduate or professional degree, add 2 more.

If you are 65 or over and still working, add 3.

If you live with a spouse or friend, add 5. If not, subtract 1 for every ten years alone since age 25.

Running Total:

Life-Style Status

If you work behind a desk, subtract 3.

If your work requires regular, heavy physical labor, add 3.

If you exercise strenuously (tennis, running, swimming, etc.) five times a week for at least a half-hour, add 4. Two or three times a week, add 2.

Do you sleep more than ten hours each night? Subtract 4.

Are you intense, aggressive, easily angered? Subtract 3.

Are you easygoing and relaxed? Add 3.

Are you happy? Add 1. Unhappy? Subtract 2.

Have you had a speeding ticket in the past year? Subtract 1.

Do you smoke more than two packs a day? Subtract 8. One to two packs? Subtract 6. One-half to one? Subtract 3.

Do you drink the equivalent of 1½ oz. of liquor a day? Subtract 1.

Are you overweight by 50 lbs. or more? Subtract 8. By 30 to 50 lbs.? Subtract 4. By 10 to 30 lbs.? Subtract 2.

If you are a man over 40 and have annual checkups, add 2.

If you are a woman and see a gynecologist once a year, add 2.

Running Total:

Age Adjustment

If you are between 30 and 40, add 2.

If you are between 40 and 50, add 3.

If you are between 50 and 70, add 4.

If you are over 70, add 5.

ADD UP YOUR SCORE TO GET YOUR LIFE EXPECTANCY. _____

Adapted from: Allen, R. F. & Linde, S. Lifegrain. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1983.

Pelletier, K. Mind as healer, mind as slayer. NY: Delta, 1977.

Selye, H. Stress without distress. NY: Signet, 1974.

Selye, H. The stress of life. NY: McGraw-Hill, 1976.

Travis, J. W. & Ryan, R. S. The wellness workbook. Berkeley, CA: Ten Speed Press, 1981.

SESSION TWO

Goals and Objectives

1. To assess factors over which we have no control (age, sex, heredity) and those over which we do have control (weight, habits, blood pressure).

2. To increase awareness of personality types; to appreciate the differences between individuals; to enhance interpersonal relationships and communication; to define Jung's typology: introversion/extraversion, sensing/perceiving, thinking/feeling, judging/perception.

3. To increase knowledge of common behavior patterns that relate directly to lifestyle; to define the range of effectiveness and ineffectiveness for Type A/B personalities.

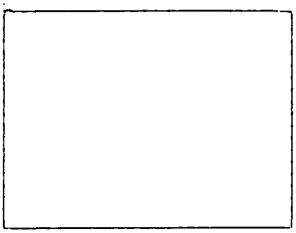
4. To increase awareness and understanding of the difference of between consequences of lifestyle and direct effects of one's behavior (smoking, alcohol and other drugs).

5. To review general indicators of stress, and to identify currently vulnerable systems.

Procedures

1. Review CARDIAC BINGO (15 minutes). Note that there are several areas that contribute to vulnerability, specifically age, sex, and heredity. Other factors which contribute to cardiac problems are more directly under our control, and include smoking, weight and blood pressure.

2. Review Stress Indicators (30 minutes). One way to pursue this is to draw the outline of a person, and to illustrate some of the various indicators of stress. Assist the participants in evaluating which system(s) formerly were activated, and which system(s) are presently activated. If they can recognize the present symptoms, they can begin to recognize the earlier symptoms and deal with them, and/or the circumstances more effectively.



3. Exercise: Discovering Personality (30 minutes). Each participant is to fill out a questionnaire designed to tap the eight preferences measured in the Myers-Briggs Type Indicator. Following individual answers, the group members mix and share answers with one another. The purpose of this exercise is to make participants aware of individual differences, as well as similarities, on a number of dimensions.

4. Looking at Type--Slide presentation (30 minutes). Videotape narrated by a University Counseling Center counselor, with slides prepared from the text by Earl Page. The slides contrast and compare introversion/extraversion, sensing/intuition, thinking/feeling and judging/perception (available from CAPT, Gainesville, FL).

5. Discussion (15 minutes). Group shares personal examples of instances where MBTI differences enhance or detract from communication. MBTI report forms are explained and each group member is given handouts (available from CAPT) "Effects of Type at Work," "Contributions to Type," and "Understanding the Type Table."

6. Discussion (30 minutes). Group brainstorms all the ways we produce stress through behavior. Examples:

Overweight	Gambling
Alcohol abuse	Procrastination
Drug abuse	Overcommitment
Reckless driving	

Further discussion highlights the various organizations and systems which assist with those behaviors. Examples: Weight Watchers, Overeaters Anonymous, shots, pills, hypnosis, wraps, fad diets, T.O.P.S. and surgical procedures. The alleged purposes of these various treatments, whether or not they give immediate or delayed results, and how much personal and/or collective effort they require is a focus of this discussion.

Relaxation

Visual imagery--seashore (30 minutes). Available from Counseling Services, Inc., Jacksonville, FL.

Homework Assignment

Personal Beliefs I Live By
Diet Sheets
How I Spend my Time
How I Would like to Spend my Time

Suggested Readings from Textbook

Chapter 7
Chapter 9

DISCOVERING DIFFERENCES

Those of us participating in this activity have taken the Myers-Briggs Type Indicator. Each person has a "type-tag" with the letters of their MBTI-type. We are about to begin a sharing exercise. By asking questions of ourselves, and others, we will try to discover some of the similarities and differences between us. We are going to use an inductive or discovery method to determine the meaning of our profile letters.

Self Interview

Take 5-10 minutes to note your own brief responses to the following questions in the space provided:

1. Do you prefer projects which require you to work alone for long periods of time, or would you rather work on projects with other people? Why?

2. If you were invited to a party where no one knew anyone else, would you go?

3. How do you react to the prospect of a job requiring a regular routine and great patience with, and attention to, facts and details?

4. How do you react to the prospect of a job requiring creative problem solving, imagination, and inspiration?

5. What is the role of impersonal logic and analysis of facts in solving your personal problems?

6. What is the role of feeling and emotion in solving your personal problems?

7. How important is it to be neat and organized in personal habits and to follow a daily plan?

8. Is a deadline a deadline, or a guideline?

Interviewing Others

Everyone has a type-tag. Take 1-2 minutes with each person:

Find at least two E's and note their response to the following questions (numbers correspond with questions in self interviews):

Question #1: 1)

2)

Question #2: 1)

2)

Find at least two I's and note their response to:

Question #1: 1)

2)

Question #2: 1)

2)

Find at least two S's and note their response to:

Question #3: 1)

2)

Question #4: 1)

2)

Find at least two N's and note their response to:

Question #3: 1)

2)

Question #4: 1)

2)

Find at least two T's and note their response to:

Question #5: 1)

2)

Question #6: 1)

2)

Find at least two F's and note their response to:

Question #5: 1)

2)

Question #6: 1)

2)

Find at least two J's and note their response to:

Question #7: 1)

2)

Question #8: 1)

2)

Find at least two P's and note their response to:

Question #7: 1)

2)

Question #8: 1)

2)

PERSONAL BELIEFS I LIVE BY

The following items represent certain beliefs and opinions that we generally hold. If you agree or disagree with an item as it applies to you, indicate the extent of that agreement or disagreement by circling the number that best represents your belief. There are no right or wrong answers. Please respond to each item.

	Disagree Very Much		Disagree Slightly		Agree Slightly		Agree Very Much	
	1	2	3	4	5	6	7	8
1. It is very important to me to be loved by almost everyone I meet.	1	2	3	4	5	6	7	8
2. I believe I should be competent at everything I attempt.	1	2	3	4	5	6	7	8
3. I believe that there are some people in the world that are bad or wicked. They should be punished for their actions.	1	2	3	4	5	6	7	8
4. I become very upset when things are not the way I want them to be.	1	2	3	4	5	6	7	8
5. I believe that most human unhappiness is caused by external factors; that people have little ability to control their own sorrows and disturbances.	1	2	3	4	5	6	7	8
6. I am very concerned about things that are dangerous and dwell on the possibility of their occurrence.	1	2	3	4	5	6	7	8
7. I believe it is better in the long run to avoid some life difficulties and responsibilities than to face them.	1	2	3	4	5	6	7	8

		Disagree Very Much		Disagree Slightly		Agree Slightly		Agree Very Much	
		1	2	3	4	5	6	7	8
8.	I believe I need another person stronger than myself on whom to rely.	1	2	3	4	5	6	7	8
9.	My past history is an important determinant of my present behavior. Once something strongly affects my life it will always affect my behavior.	1	2	3	4	5	6	7	8
10.	I become more upset than I should about other people's problems and disturbances.	1	2	3	4	5	6	7	8
11.	I believe there is one right solution to any given problem, and if I do not find this solution, I feel I have failed.	1	2	3	4	5	6	7	8

Adapted from Ellis & Harper, 1975.

Day:							
MORNING MEAL Fruit Milk Protein Bread Beverage							
MIDDAY MEAL Beverage Protein Vegetable Bread Fruit							
EVENING MEAL Beverage Protein Vegetable Fruit Bread							
SNACKS List All Snacks							
Water (8)							
Fruit	]]]	]]]	]]]	]]]	]]]	]]]	]]]
Milk	]]	]]	]]	]]	]]	]]	]]
Bread	]]	]]	]]	]]	]]	]]	]]
Vegetables	]]]	]]]	]]]	]]]	]]]	]]]	]]]
Fat	]]]	]]]	]]]	]]]	]]]	]]]	]]]
Protein	]]	]]	]]	]]	]]	]]	]]
Total Calories	_____	_____	_____	_____	_____	_____	_____

HOW I REALLY SPEND MY TIME

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
5:00							
6:00							
7:00							
8:00							
9:00							
10:00							
11:00							
12:00							
1:00							
2:00							
3:00							
4:00							
5:00							
6:00							
7:00							
8:00							
9:00							
10:00							
11:00							

HOW I WOULD LIKE TO SPEND MY TIME

	Monday	Tuesday	Wednesday	Thursday	Friday
7:00					
8:00					
9:00					
10:00					
11:00					
12:00					
1:00					
2:00					
3:00					
4:00					
5:00					
6:00					
7:00					
8:00					
9:00					
10:00					
11:00					

Facilitator Preparation

Anderson, R. A. Stress power. NY: Human Sciences Press, 1978.

Friedman, M. & Rosenman, R. H. Type A behavior and your heart. NY: Knopf, 1974.

Keirsey, D. & Bates, M. Please understand me. DelMar, CA: Prometheus Nemesis Books, 1978.

Kobasa, S. C., Maddi, S. R., & Courington, S. Personality and constitution as mediators in the stress-illness relationship. Journal of Health and Social Behavior, 1981, 22, 368-378.

SESSION THREE

Goals and Objectives

1. To be introduced to the myths of hypnosis, as well as the actual process and possible uses of hypnosis.

2. To identify irrational ideas held by individuals, and provide an opportunity to restate ideas in a rational manner.

3. To increase effective use of time; to define goal setting, objectives, delegating, prioritizing; short term, intermediate and long term goals; to identify cycles of activity/inactivity.

4. To increase awareness of the relationship between nutrition and stress; to identify individual eating patterns.

Procedure

1. Videotape--Hypnosis (60 minutes). Clinical hypnotist lectures on the myths of hypnosis, as well as the uses and benefits of hypnosis. Several case examples are given, and a group demonstration is utilized. Available from Counseling Services, Inc., Jacksonville, FL.

2. Videotape--Nutrition (60 minutes). Registered dietician speaks on the necessity of being personally responsible for recognizing nutritional quackery. The tape and following discussion attempts to promote the consumption of a nutritionally dense diet and to decrease non-nutritious (i.e., junk food) consumption. The group discussion lists ready sources of nutritious foods, from the actual eating patterns recorded during the previous two weeks. Special attention is given to the negative aspects of salt, sugar, fats and refined flour. Available from Counseling Services, Inc., Jacksonville, FL.

One technique is to list on the board columns, (a) Dairy products, (b) Protein, (c) Grains, (d) Fruits and Vegetables, (e) "AUJ--Absolutely Useless Junk. Foods that were recorded on the diet sheets are listed in the appropriate column.

Another technique is to "cook" a "healthy" apple pie (it may have a whole wheat crust, extra spices for flavor, fresh apples, deep dish, lattice crust, extra fruit, e.g., raisins, cheese on top).

3. Time Management Discussion (30 minutes). Participants are encouraged to examine the balance of time in their lives. Approximately 1/3 should be devoted to work, 1/3 devoted to home responsibilities, and 1/3 to self development.

   Participants take a 5 minute exercise in goal setting. Two minutes are spent in writing down all the things one wishes to do in a lifetime (plus one more minute). During the next minute, the three most important of those goals is selected, and then the first (or next) step towards achieving these goals is defined. For example: Travel to Europe (long-term goal) is selected for an intermediate goal, and calling the travel agent or opening a savings account would be a short-term goal.

4. Videotape--Rational Emotive Thinking (60 minutes). In this videotape, participants examine the eleven irrational ideas of R.E.T., and compare it to the results of the Personal Belief Inventory. They will have an opportunity to restate ideas in a rational manner. The lecture provides an opportunity to understand how emotions (Consequences) are controlled by Beliefs about Activating events, and can therefore be changed. The emphasis is on the realization that life is not always fair, we may not be loved by everyone, and that perfection is unattainable. Available from Counseling Services, Inc., Jacksonville, FL.

Relaxation

Autogenic Phrases (30 minutes). Available from Counseling Services, Inc., Jacksonville, FL.

Homework Assignment

My Perfect Day

Suggested Readings from Textbook

Chapter Three

Facilitator Preparation

Blanchard, K. & Johnson, S. The one minute manager. NY: William Morrow & Company, Inc., 1982.

MY PERFECT DAY

Describe a perfect day in your life five years in the future.

Ellis, A. & Harper, R. A. A new guide to rational living. North Hollywood, CA: Wilshire Book Co., 1975.

Hall, R. H. Whither nutrition. Journal of Holistic Medicine, 1981, 3 (1), 23-29.

King, J. C., Cohenour, S. H., Corruccini, C. G. & Schneeman, P. Evaluation and modification of the basic four food guide. Journal of Nutritional Education, 1978, 10 (1), 27-29.

Kopolow, L. E., & Fried, H. Plain talk--The art of relaxation. Publication No., (ADM) 78-632 Rockville, MD: U. S. Department of HEW, January 1978.

Lakin, A. How to get control of your time and your life. NY: Signet, 1973.

Peterkin, B. P., Kerr, R. L., & Shore, C. J. Diets that meet the dietary goals. Journal of Nutritional Education, 1978, 10 (1), 15-18.

Shuman, A. R., Levies, K. J. & Guthrie, H. A. Learner objectives for a nutrition education curriculum. Journal of Nutritional Education, 1978, 10 (2), 63-65.

Winston, S. Getting organized. NY: Warner Books, 1978.

SESSION FOUR

Goals and Objectives

1. To increase awareness of a variety of communication theories and techniques.

2. To be able to identify and differentiate between Parent, Adult and Child ego states, and to understand the effectiveness of parallel, adult transactions, and the ineffectiveness of crossed transactions.

3. To differentiate between assertive, non-assertive and aggressive.

4. To increase awareness of the importance of available others in the management of stress; to identify and evaluate the availability of one's present support system; to discuss means of enhancing currentsupport system.

5. To increase knowledge of the relationship between oxygen consumption and oxygen utilization via increased cardio-vascular sufficiency; to increase awareness of one's already-present exercise skills, and to increase awareness of the importance of aerobic exercise.

6. To review life planning homework.

Procedure

1. My Perfect Day (30 minutes). Participants were given a blank sheet titled, "My Perfect Day," and were instructed to write about a realistic, ideal day, projected five years into the future. They are placed in dyads, and encouraged to share, either in part or in full, their ideal day. After 10 minutes, the group reunites, and the facilitator lists on the board the highlighted qualities of the ideal day. The lists usually include:

purposeful activity	intellectual stimulation
adequate rest	peace and contentment
physically fit	freedom
quality family time	lack of pressure
relaxation	happiness
job satisfaction	financial security

   meaningful relationships with family
   personally rewarding and creative activities

   The group then discusses how most of these things are attained, primarily through their own efforts over time.

2. Lecture--Transactional Analysis (30 minutes). A chalk-talk illustrates the ego states of Berne's (1967) Transactional Analysis and is followed by sharing illustrative examples from individual situations.

3. Assertiveness Awareness Exercise (15 minutes). The group is divided into triads, and each person is given at least one chance to communicate in each of the three ways: passively, aggressively and assertively. The facilitator gives a brief situational description, and then person #1 responds assertively, #2 responds aggressively, and #3 responds passively. For the next situation, response positions are rotated.

   Suggested situations:

   a. Your supervisor has asked you to stay late, and your son is in Little League Playoffs tonight.

   b. You are in a restaurant, and it has been 20 minutes since your order was taken, but no food has been served.

   c. You are in a crowded meeting room and someone nearby is smoking, and the smoke is drifting in your face.

4. Exercise--a great way to go (45 minutes). Participants are asked for the various reasons they exercise, and these are listed on the board.

   To lose weight
   To look good in clothes
   To work off tension
   To help heart and lungs

   The facilitator points out that most of these are visible and have rather immediate results, but that the long-term benefits of regular exercise are increased cardio-vascular sufficiency.

Following this discussion, participants are asked to list anything they have ever done as exercise:

skate	nautilus	yard work
dance	yoga	chase kids
*run	*aerobics	volleyball
*jog	*racquetball	softball
canoe	*bike	bowl
*walk	*swim	sail
tennis	watuski	horseback
golf	housework	ski
majorette	cheerleader	*jump rope
calesthenics	hike	climb stairs
sex		

The exercises which are aerobic are marked, and then participants write down five things:

a. the number of the total exercise items they know how to do

b. the number they have done in the past year

c. the number they have done in the past month

d. the number they have done in the past week

e. the number done in the past week that were aerobic

The purpose of this exercise is to demonstrate that most people already have sufficient exercise skills, but need commitment to fulfilling the need for a regular exercise program with several options for variety and seasonal changes.

5. My Support System (30 minutes). Members are given a sheet with the definition of support system, which is elaborated on phrase by phrase. They then spend about 10 minutes writing down the names of all the people that have ever been supportive of them. The list will probably include:

parents	spouse
siblings	former spouses
significant relatives	children
teachers	work associates
school friends	church associates
in-laws	special groups

Then they are asked to draw a line through:

a. anyone on the list who is dead

b. any one on the list to whom they are no longer married (may or may not include former in-laws)

c. any children

d. any on the list who does not live in (city)

e. anyone on the list not seen or talked to in a year; six months; three months.

What remains on the list is their support system. The number will vary from 0 to 12-15. It is useful to discuss the fact that everyone has had support systems in the past, and to evaluate the sources (friends, family, work, school, church, special interest groups) in order to renourish support in the present.

Relaxation Exercise

Fantasy/Walk Through a Rainbow (30 minutes) Available from Counseling Services, Inc., Jacksonville, FL.

Homework Assignment

The Smiling Dragon
Self Descriptors Checklist

Suggested Readings from Textbook

Chapter 10
Chapter 11

Facilitator Preparation

Alberti, R. E. & Emmons, M. I. Your perfect right. San Luis, CA: Impact Publishers, 1970.

Bowerman, W. J. & Harris, W. E. Jogging. NY: Grossett & Dunlap, 1967.

Cooper, K. H. The new aerobics. NY: Bantam Books, Inc., 1970.

Cooper, M. & Cooper, K. H. Aerobics for Women. NY: Bantam, 1972.

Diskin, E. Yoga for your leisure years. NY: Wagner, 1978.

Harris, T. A., I'm OK--You're OK. NY: Harper Books, 1967.

Norbeck, J. S. The use of social support in clinical practice. Journal of Psychosocial Nursing and Mental Health Services, 1982, 20, (12), 22-29.

Satir, V. Peoplemaking. Palo Alto, CA: Science and Behavior Books, Inc., 1972.

Stein, L. I. The doctor-nurse game. Archives of General Psychiatry, 1967, 16, 699-703.

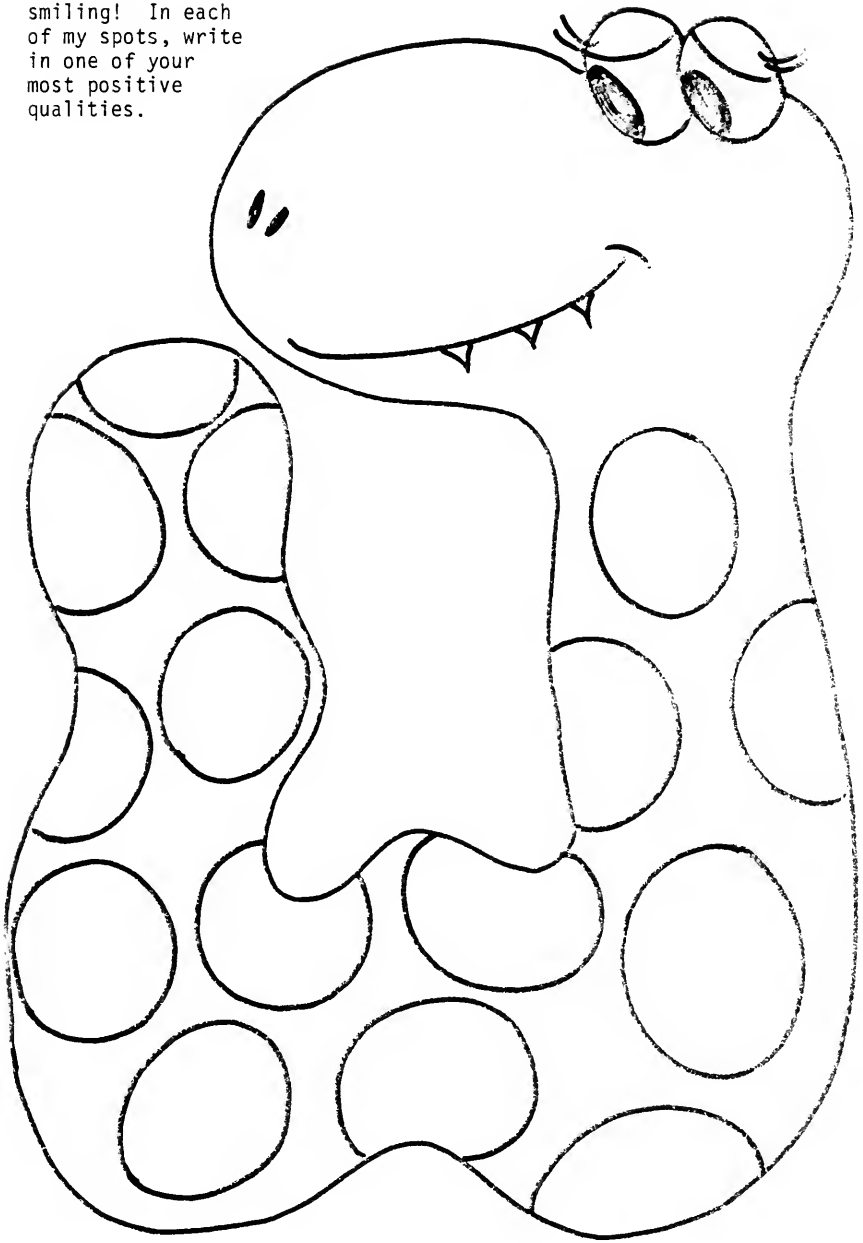
SUPPORT SYSTEMS

A support system can be defined as a lifelong need for intimate, trustworthy others to enhance growth and coping; given and received in a relatively stable network of basically healthy relationships; the type and amount of support needed and given is reciprocal, and is individually determined. It is available, adult individuals who sustain and uphold a person, who can then bear the weight of the stress, and take the necessary actions. This is done by people who care, listen, affirm and challenge, both personally and professionally.

List below (and on the back if necessary) all the people in your life who have been part of your support system. Go back as far as you can remember, and include friends, family, relatives, teachers, etc.

THE SMILING DRAGON

Please keep me smiling! In each of my spots, write in one of your most positive qualities.



SELF DESCRIPTORS CHECKLIST

Circle any of the adjectives below which describe you as you are now. Circle as many or as few as you wish.

Physical	Attractive	Slow	Unattractive	Graceful	Painful
	Neat	Sloppy	Uncoordinated	Sensual	Deformed
	Clean	Healthy	Energetic	Ugly	Old
	Strong	Sickly	Poised	Tired	Young
	Coordinated	Awkward	Cute	Delicate	Clumsy
	Quick	Uncoordinated	Lazy	Daring	
	Weak	Athletic	Pretty	Handsome	
	Muscular	Active	Artistic	Scarred	
Intellectual	Smart	Creative	Conscientious	Confused	Perceptive
	Dumb	Experienced	Aware	Confident	Intuitive
	Boring	Skilled	Spiritual	Persistent	Self-Directed
	Quick Learner	Broad-minded	Gullible	Knowledgeable	Competitive
	Slow Learner	Decisive	Ambitious	Pessimistic	Rational
	Perfectionistic	Unskilled	Procrastinating	Optimistic	Realistic
	Imaginative	Apathetic	Curious	Determined	
	Bright	Dull	Sensible	Observant	
Emotional	Changeable	Sad	Frightened	Distant	Self-reliant
	Vulnerable	Moody	Calm	Fun-loving	Detached
	Happy	Cautious	Tender	Contented	Indifferent
	Fussy	Mistrustful	Cheerful	Loving	Affectionate
	Discouraged	Depressed	Lonely	Angry	Impatient
	High strung	Relaxed	Cool	Loveable	Touchy
	Sensitive	Trusting	Nervous	Gentle	Impulsive
	Distracted	Grumpy	Stable	Warm	Easy going
	Unpredictable	Suspicious	Patient	Excited	
Social	Outgoing	Humorous	Sociable	Unimportant	Excitable
	Talkative	Dull	Quarrelsome	Reserved	Self-controlled
	Shy	Timid	Self-disclosing	Friendly	Dependent
	Quiet	Witty	Agreeable	Stubborn	Patient
	Important	Accepting	Understanding	Complaining	Isolated
	Popular	Aggressive	Demanding	Cooperative	Insecure
	Loner	Dominant	Modest	Loud	Judgmental
	Interesting	Withdrawn	Yielding	Flexible	Open-minded
Moral	Callous	Responsible	Straightforward	Thoughtful	Sneaky
	Honest	Loyal	Stingy	Mischievous	Generous
	Caring	Selfish	Fair	Rebellious	Irresponsible
	Reliable	Dependable	Independent	Moral	Sincere
	Immoral	Conforming	Trustworthy	Cunning	Self-Disciplined
	Helpful	Faithful	Law-abiding	Guilty	Kind
	Vengeful	Conventional	Courageous	Cruel	Undependable
	Truthful	Forgiving	Lying	Amoral	Manipulating

Adapted from: Yorde, B., and Wittmer, J.M. Stress Indicators. Nelsonville, OH: Counseling, Stress Management and Biofeedback Associates, 1979.

SESSION FIVE

Goals and Objectives

1. To increase self awareness of factors involved in job satisfaction/burnout; to identify the inter-dependent needs that jobs meet.

2. To increase self-awareness and understanding of all the aspects of one's personality; to focus on areas that need enhancement for more effective mastery of stress; to introduce the concepts of psychosynthesis and unconditional positive regard as tools for more positive self-concept.

3. To introduce Journal-Keeping as a method of continued personal awareness.

Procedures

1. The Smiling Dragon (45 minutes). Each group member will have completed filling in the "spots" on the dragon with his/her good qualities. Some people will find this difficult to do, as they are more accustomed to finding things "wrong" than finding things "right." The group will divide into groups of four, and share their dragons with each other. If there are any members having difficulty in completing their forms, the other group members will be able to help them. This exercise gives participants an opportunity to give feedback to one another, in a trusting, safe environment.

   When the group returns, feelings are shared about the difficulty that may have been experienced in sharing these good aspects of themselves, and how it felt to have others give them positive feedback.

2. Discussion on Job Satisfaction (45 minutes). The group will list the various things that make a job satisfying. This list will include, among other things,

adequate pay	professional respect	flexible hours
social rewards	praise	friendship
challenging	opportunity for growth	personality fit

   More discussion will focus on the trade-offs of working, which may include:

time spent with family	quality of housework
time for social activities	quantity of housework
quality of family activities	physically draining work
emotionally draining work	

   The discussion will point out that there are both positive and negative aspects to working, and that these are considerations when selecting a career.

3. Self-Concept Exercise (45 minutes). Participants completed the Self Descriptors Checklist as homework, marking as many of the adjectives as applied to themselves. At this point, the facilitator introduces the concepts of IDEAL, REAL and PERCEIVED self and explores the various sources of self concept (peers, family, institutions). The members write down which of those descriptors fit into which category, and how they might wish to change those self concepts. For example, "gullible" might be both part of their real and perceived self concepts, yet not their ideal self concept. Another example is that "peaceful" is part of their ideal and perceived concept, but they do not truly perceive themselves as peaceful.

4. Psychosynthesis Exercise (35 minutes). Each member is given a blank sheet of paper with an "I" encircled in the middle. She is then told that now she will look at a total picture of herself. The sections of this picture may include roles, personality preferences, habits, and any qualities that she possesses. The pictures tend to become somewhat like a kaliedoscope or mosaic, but may be flower petals, lists or mandalas. This is one of the most peaceful tools in this course.

   Following this exercise, a discussion is led into the value of writing, or keeping a journal. Participants are reminded that they have been keeping various types of journals throughout this course, and are encouraged to keep all these materials in a notebook, with dated entries, and to continue to work on the areas of most interest to them.

Relaxation Exercise

Wise Old Person/Meditation Tape (30 minutes). Available from Counseling Services, Inc., Jacksonville, FL.

Homework Assignment

None

Suggested Readings from the Textbook

None. Participants are given a lengthy bibliography for future use.

Facilitator Preparation

Assagioli, R. Psychosynthesis--A collection of basic writings. New York: Penguin Books, 1965.

Hagan, D. Q. The relationship between job loss and physical and mental illness. Hospital and Community Psychiatry, 1983, 34 (5), 438-441.

3. Self-Concept Exercise (45 minutes). Participants completed the Self Descriptors Checklist as homework, marking as many of the adjectives as applied to themselves. At this point, the facilitator introduces the concepts of IDEAL, REAL and PERCEIVED self and explores the various sources of self concept (peers, family, institutions). The members write down which of those descriptors fit into which category, and how they might wish to change those self concepts. For example, "gullible" might be both part of their real and perceived self concepts, yet not their ideal self concept. Another example is that "peaceful" is part of their ideal and perceived concept, but they do not truly perceive themselves as peaceful.

4. Psychosynthesis Exercise (35 minutes). Each member is given a blank sheet of paper with an "I" encircled in the middle. She is then told that now she will look at a total picture of herself. The sections of this picture may include roles, personality preferences, habits, and any qualities that she possesses. The pictures tend to become somewhat like a kaliedoscope or mosaic, but may be flower petals, lists or mandalas. This is one of the most powerful tools in this course.

   Following this exercise, a discussion is led into the value of writing, or keeping a journal. Participants are reminded that they have been keeping various types of journals throughout this course, and are encouraged to keep all these materials in a notebook, with dated entries, and to continue to work on the areas of most interest to them.

Relaxation Exercise

Wise Old Person/Meditation Tape (30 minutes)

Homework Assignment

None

Suggested Readings from the Textbook

None

Facilitator Preparation

Assagioli, R., & Van de Riet, V. Introduction to psychosynthesis. New Frontiers in Counseling: Accountability through Credibility, workshop presented at Gainesville, Florida, February 10-12, 1977.

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McGill, M. & Pye, O. The no-nonsense guide to food and nutrition. New York: Butterick, 1978.

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APPENDIX E
COURSE EVALUATION FORM
AND COMPLETE SUMMARY

COURSE EVALUATION

1. This course was personally relevant:

of little relevance					quite relevant
1	2	3	4	5	6

2. This course was professionally relevant:

of little relevance					quite relevant
1	2	3	4	5	6

3. I would recommend this course to others:

would not recommend					without reservation
1	2	3	4	5	6

4. The most important thing I (re)learned was:

5. Other important things I (re)learned were:

6. We could have spent less time on:

7. I would like to have spent more time on:

8. To improve the course next time:

9. Changes I intend to make in my lifestyle are:

EVALUATION SUMMARY

1. This course was personally relevant: 5.6

2. This course was professionally relevant: 5.5

3. I would recommend this course to others: 5.8

4. The most important thing I (re)learned was:

time management skills; self-awareness; the relaxation techniques; the need to take care of myself; the most important thing I learned was how to relax and the importance of breaking the stress cycle daily (using General Adaptation Syndrome as a guage or chart in my thought patterns); to stress the positive, but keep working on the negative; how to relax; that I control me, my life, my circumstance; that I create much of my own stress; relaxation techniques, put them back into practice; I am a unique, important person, with a lot to offer this life; that you are not "bad" if you refuse to take on more than you can reasonably handle; how to be assertive; I cannot change others--that only increases stress; my personality profile--I'm basically an efficient, positive person--I thought I was lazy--I'm more of a perfectionist than I realized; personality type and relaxation techniques; I must live with my job--think of myself first (for a change); get my health on an even line by more exercise and diet for my medical problems; how to relax; how badly I'm ruining my health; others can't make me do things--feel things; how difficult it is for me to identify my feelings--I tend to be (n)either high or low (up or down) most of the time; how to cope; my own stressors.

5. Other important things I (re)learned were:

personality categories--body relaxation; ways to control my emotions; how to say "no" when I feel over-extended--how to fix goals for my remaining lifetime--how to feel more positive about me; the need to write my feelings and deal with them; importance of exercise--realized the importance of putting my needs first some of the time--so I can be more to others--importance of goal-setting--not to worry about what we cannot change--seeing myself, with all my facets, and that some of what I considered negative has a purpose--ex. bitchy self for car problems; the use of different focal points for concentration to relax--how to effectively assess your progress-time management; time management--assertiveness; to increase my awareness of my attitude--knowing I can change only me--to take care of me first and that I don't depend on anyone else for happiness or sadness--just me; I can enhance my physical and emotional well-being with good coping (stress management); management of stress--the ways to effectively decrease stress; I have learned to recognize my stressors and how to deal with them--how to manage my time more effectively--and relaxation techniques;

beginning steps to relaxation (hopefully will increase ability)--how I irritate others unknowingly--to look at a problem and decide whether it's my problem or belongs to the other party involved--other people feel as miserable as I; how to be relaxed; I need to take time to relax--my husband cannot be my only support system--I need others--my diet is inadequate; order of priorities and "dividing self"; I'm more important than anyone or anything--do not let my worries take me over; no response; not to get so upset over various things--not to worry so much--say "no" more often--should "moderate" more; what personality type I am--how to relax--how to budget time; that I could teach this course and would enjoy doing so; that I'm not so bad after all--I understand better why I think the way I do; how to deal with stress through diet and exercise.

6. We could have spent <u>less</u> time on:

I can't think of anything; relaxing; I wouldn't have wanted to spend less time on anything; diet--Rational Emotive Thinking; testing; I didn't feel like we spent too much time on anything; diet; listening to some boring repetitions of others' problems; the last tape (meditation) which I found irritating; ? diet (was boring); nothing; nutrition; no response; diet; I felt all was relevant; nutrition and exercise; paperwork ?; nutrition; no response; nothing; Myers-Briggs; nutrition--only because it is boring to me, even though I know it probably is vitally important to me--it probably is one of the next subjects I need to explore; I feel that all my time was well spent.

7. I would like to have spent <u>more</u> time on:

time management--body relaxation--follow-up of our class or an advanced--Part II would be great; understanding people and class discussions; I think time budgeting could have been discussed a little more; relaxation techniques--class discussions; specific nutritional information--like how sugar interferes with vitamin absorption; hypnosis; hypnosis; pretty much the whole class--I enjoyed all of the instruction and the instructor--time management; relaxation techniques--explain more about hypnosis--time management; time management; personality types; I would like to have spent more time on diets; theories of stress and response; planning my meals and being more efficient in time management; behavior modification; relaxing--learning the techniques; no response; no response; hypnosis (would like to know more about this and biofeedback); exercise and nutrition--loved the homework and lots of handouts; can't think of anything; individual problems.

8. To improve the course next time:

weekly for a shorter period of time--every two weeks was too hard to anticipate and too easy to forget and put off homework; better facilities; I think the next course should be held <u>every</u> week;

better relaxation facilities--more organization; I would like to see biofeedback demonstrated in class, and more decision-making skills incorporated; more relaxation techniques and better facilities to use to relax in; more hours/classes together; to improve the next course--longer with more relaxation time; more feedback on tests--maybe a price increase to include individual counseling session on results; different and more relaxation techniques; be a little more organized--have weekly; make tapes available for purchase so that participants can obtain a copy of the one they found most effective; I would suggest to put in more time--instead of every two weeks, make it one day a week; relaxation response--learning how to; more practical theories and education; outline of course to start--more group discussion of problems we have--I think sharing is important to all of us; no response; no response; cut down tape on nutrition from girl at St. Vincent's--was a little too long; more time for follow-up on homework and more general class sharing; I will probably attend; I would come to an early morning class.

9. Changes I intend to make in my lifestyle are:

try to anticipate stress situations in advance and be prepared to handle them better--be more tolerant of other personality types and be aware that they can't help their weaker traits--plan and schedule ahead so as not to have panic baking, shopping, etc.--practice saying NO; go back to school--have more fun--relax more--love each day; take more time out for me--try to be more understanding--patient--helpful--loving with Ericka and Bill--be a better wife and mother in looking for more ways to help or fill the needs of my family; live one day at a time--get out of the past--lose weight--quit smoking; more exercise (regular)--eat less sugar and fats--relax daily--distinguish between what I can change and can't change; more exercise--more time in evaluating my life and its direction--more time using hypnosis tapes for relaxation; lose weight--more exercise--more assertive; decrease stress to my most manageable level--increase my running distance and speed--run 1-2 marathons in 1984--depend on me for my own happiness and learn to enjoy those around me--be less affected by material possessions--stay outside as much as possible and enjoy all outside; making more time for myself--exercise routine--not allowing others to be a constant source of misery to me--seeking some counseling in dealing with family problems--relaxation; keep up exercise programs--improve nutrition (lose 6 more pounds for goal)--plan more time out for "me"; I am going to become my own person again--not who I think others want me to be--I am going to take time out for myself and for enjoying the time I have left with my children--I am going to take time for relaxation daily to increase my effectiveness and enjoyment in all aspects of my life--I am going to learn to accept my husband for the wonderful person he is, rather than unforgiving of things that annoy me; try to say "no"--try not to feel guilty--put me on my priority list--get more exercise;;stop smoking or at least stop feeling guilty about it; set short-term goals--try to enjoy

myself more--try to grow old gracefully; try to increase exercise--try not to overreact in situations over which I have no control; notice when I'm reacting to stress and learn to head it off--spend more time nurturing my relationship with my husband--keep exercises as a routine part of my life; exercise--nutrition--self control; I'm No. 1--don't let my job rule me--work on my health problems--learn to relax--pray to God this all works; no response; not to get as upset over piddling, inconsequential things--exercise more--spend more time on myself--say "no"--moderate (not to try to do it "all"); increase exercise--relax more often--recognize stress factors and NOT eat stress off!!--holler at kids less--not take stress out on them; continue with feelings sheets--re-start diet sheets--actually sensible eating sheets--greater involvement with others in my leisure time; mix--have a tendency to stay at home now--make some new friends--start doing ceramics again--lose weight--walk; more relaxation.

APPENDIX F
DEMOGRAPHIC DATA

DIRECTIONS: These questions are part of the statistical evaluations. They are arranged so that in most cases, all that is needed is a check mark. Please answer all questions. Identifying data will be removed to maintain confidentiality.

Name:_____

Address:_____ZIP_____

Phone: (H)_____(W)_____

EMPLOYMENT

License
___Active
___Inactive

Working Schedule
___Full time
___Part time
#hours:
___Not employed in nursing
___Unemployed

Location
___Hospital
___Nursing Home
___Doctor's Office
___Home Health
___Comm. Health
___Industrial
___Other:
_____

Specialty
___ICU/CCU
___Med/Surg
___OB/GYN
___Geriatrics
___Pediatrics
___Psychiatry
___Rehabilitation
___Occ. Health
___Other:
_____

Shift
___7-3 (Days)
___3-11 (Evenings)
___11-7 (Nights)
___Rotate
___Baylor W/E
___Other:_____

Position
___Staff
___Supervision
___Administration
___Education
___Other:_____
___Specialist:_____

#/Years in nursing:_____ #/Years in present position:_____

Present salary: $_____

EDUCATION

Basic Nursing Education
___ADN, 19_____
___Diploma, 19_____
___BSN, 19_____

Advanced Degrees
___BSN ___BA:_____
___MSN ___MA:_____
___PhD ___PhD:_____

Certification (list):_____

HOUSEHOLD

Marital Status/Living Arrangements/yrs.

___Married_____
___Single_____
___Separated_____
___Divorced_____
___Widowed_____
___Remarried_____
___Live alone_____
___Live with another adult_____

Children (ages)_____

Financial Structure
___Sole wage earner
___Joint wage earner
Spouse/partner occupation:_____
Spouse/partner salary:_____

Age:_____ Sex: M F Ethnic Origin:_____Religion:_____

APPENDIX G

KNOWLEDGE AND AWARENESS QUESTIONNAIRE

NAME

For the pretest, please circle the number which represents your assessment of how much you know and/or are aware of the concepts enumerated. For the posttest, please indicate your choice with an "X."

		Least									Most
1.	How much do you know about the theories of stress?	1	2	3	4	5	6	7	8	9	10
2.	How much do you understand about how stressors affect you?	1	2	3	4	5	6	7	8	9	10
3.	How much do you know about the various physiological indications of stress?	1	2	3	4	5	6	7	8	9	10
4.	How well can you identify your specific physical responses to stress?	1	2	3	4	5	6	7	8	9	10
5.	How much do you know about the various behavioral indications of stress?	1	2	3	4	5	6	7	8	9	10
6.	How well do you control your stressful behaviors?	1	2	3	4	5	6	7	8	9	10
7.	How much do you know about relaxation and meditation?	1	2	3	4	5	6	7	8	9	10
8.	How effectively can you relax your body?	1	2	3	4	5	6	7	8	9	10
9.	How much do you know about the relationship of job satisfaction and stress?	1	2	3	4	5	6	7	8	9	10
10.	How stressful do you consider your job?	1	2	3	4	5	6	7	8	9	10
11.	How well satisfied are you with your job?	1	2	3	4	5	6	7	8	9	10
12.	How much do you know about the relationship between personal control and stress?	1	2	3	4	5	6	7	8	9	10
13.	How much control do you have in your own circumstances?	1	2	3	4	5	6	7	8	9	10

		Least									Most
14.	How much do you know about time management?	1	2	3	4	5	6	7	8	9	10
15.	How effective are your time management skills?	1	2	3	4	5	6	7	8	9	10
16.	How much available time is spent in self-nuturing?	1	2	3	4	5	6	7	8	9	10
17.	How much do you know about support systems?	1	2	3	4	5	6	7	8	9	10
18.	How effective is your support system?	1	2	3	4	5	6	7	8	9	10
19.	How much do you understand about various personality preferences in others?	1	2	3	4	5	6	7	8	9	10
20.	How well do you understand your own personality preferences?	1	2	3	4	5	6	7	8	9	10
21.	How stress producing is your own personality?	1	2	3	4	5	6	7	8	9	10
22.	How much do you know about the components of self-concept?	1	2	3	4	5	6	7	8	9	10
23.	How adequate is your self-concept?	1	2	3	4	5	6	7	8	9	10
24.	How much do you know about the various ways we communicate?	1	2	3	4	5	6	7	8	9	10
25.	How effective are your communication skills?	1	2	3	4	5	6	7	8	9	10
26.	How much do you know about the relationship between diet and nutrition and stress?	1	2	3	4	5	6	7	8	9	10
27.	How nutritionally adequate is your diet?	1	2	3	4	5	6	7	8	9	10
28.	How much do you know about the relationship between exercise and stress?	1	2	3	4	5	6	7	8	9	10
29.	How adequate is your exercise program?	1	2	3	4	5	6	7	8	9	10

APPENDIX H
INFORMED CONSENT

University of Florida
Committee for the Protection of Human Subjects

I understand that this study is seeking to improve stress mastery skills. I agree to be a member of the treatment group for a period of ten weeks.

I further understand that I will be taking some paper-and-pencil tests which will be used in the evaluation of this study. The results of these tests will be treated as confidential material, and will be available to no one other than the principal investigator and myself. At all times confidentiality will be maintained. Results will be anonymous during analysis.

I will receive no monetary compensation (payment) for participating in this study, and my participation is purely voluntary. If I should decide to drop out of the study for any reason, at any time, I may do so without penalty. If I have questions about the study or the procedures, the principal investigator will answer them.

If I complete the course, I will receive approved continuing education credit hours, which may be applied toward renewal requirements for my Florida nursing license.

I have read and I understand the procedure described above. I agree to participate in the procedure and I have received a copy of this description.

Signatures:

_____ _____
Subject Date

_____ _____
Witness Date

Principal Investigator:

Nancy H. Patterson
7555 Beach Boulevard, #231
Jacksonville, FL 32216

Phone: 904/724-6744

APPENDIX I
INFORMED CONSENT

University of Florida
Committee for the Protection of Human Subjects

I understand this study is using registered nurses in the treatment group. I agree to be a member of the control group for a period of ten weeks.

I further understand that I will be taking some paper-and-pencil tests which will be used in the evaluation of this study. The results of these tests will be treated as confidential material, and will be available to no one other than the principal investigator and myself. At all times confidentiality will be maintained. Results will be anonymous during analysis.

I will receive no monetary compensation (payment) for participating in this study, and my participating is purely voluntary. If I should decide to drop out of the study for any reason, at any time, I may do so without penalty. If I have questions about the study or the procedures, the principal investigator will answer them.

I have read and I understand the procedure described above. I agree to participate in the procedure and I have received a copy of this description.

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BIOGRAPHICAL DATA

Nancy Pearle Hord Patterson is a native of Gainesville, FL. She was born January 19, 1943, to Crystal and J. Harvey Hord. She was educated entirely at P. K. Yonge, University of Florida's Laboratory School. Following her graduating in 1960, she attended Florida State University for a brief time. She is the mother of three daughters: Nancy Katherine Gillis, Crystal Leigh Gillis, and Caren Louise Gillis.

When her family moved to Jacksonville, FL, in 1968, she entered an associate degree nursing program at Florida Junior College, graduating in 1971. She continued her education in the Department of Psychology at the University of North Florida in Jacksonville, receiving her bachelor's and master's degrees in 1976 and 1978, respectively.

She was accepted into the doctoral program in the Department of Counselor Education at the University of Florida in 1977.

Her career path has taken her through in-patient and out-patient psychiatric settings, adolescent day treatment programs, and into a successful private practice in the Jacksonville area. She is also involved in the continuing education of nurses, and presently teaches human relations courses for nurses, the general public, and business and industry.

She resides with her husband, William P. Patterson, in Jacksonville.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Janet J. Larsen, Chairperson
Professor of Counselor Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

P. Joseph Wittmer, Cochairperson
Professor of Counselor Education

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Jo Ann Patray
Associate Professor of Nursing

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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This dissertation was submitted to the Graduate Faculty of the Division of Curriculum and Instruction in the College of Education and to the Graduate School, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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