This is to certify that the

dissertation entitled

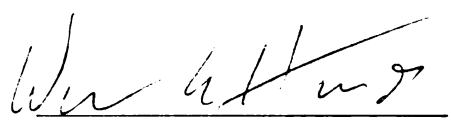
TRAINING HEALTH MAINTENANCE ORGANIZATION SUBSCRIBERS IN AFFECTIVE AND COGNITIVE COPING SKILLS AS A PRIMARY PREVENTION APPROACH TO MENTAL HEALTH AND HEALTH EDUCATION

presented by

William Michael Griz

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Counseling and Educational Psychology



Major professor

Date December 17, 1981

TRAINING HEALTH MAINTENANCE ORGANIZATION SUBSCRIBERS IN AFFECTIVE AND COGNITIVE COPING SKILLS AS A PRIMARY PREVENTION APPROACH TO MENTAL HEALTH AND HEALTH EDUCATION

By

William Michael Griz

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Counseling and Educational Psychology

1982

ABSTRACT

TRAINING HEALTH MAINTENANCE ORGANIZATION SUBSCRIBERS
IN AFFECTIVE AND COGNITIVE COPING SKILLS AS A
PRIMARY PREVENTION APPROACH TO MENTAL
HEALTH AND HEALTH EDUCATION

By

William Michael Griz

This study was designed to evaluate several educational approaches to preventive mental health services within a health maintenance organization. In this study, the behavioral effects of training an HMO population in coping skills were assessed. Classes in affective, affective-cognitive, and cognitive coping skills were given to volunteers in an effort to assess the individual and relative contribution of each type of curriculum to the general coping ability and to the physical well-being of the participants.

Fifty volunteers were randomly assigned to three treatment groups and a control group. The coping-skill training consisted of three different curriculums presented over an eight-week period. The affective curriculum was composed of the standard empathy training model of Truax and Carkhuff (1967). The cognitive curriculum was composed of material taken from the literature on neurolinguistic programming. The affective-cognitive curriculum combined material from both the affective and the cognitive curriculums. The control group was a no-contact, delayed-treatment group.

Two instruments were developed to assess the results of the training. The Coping Skill Instrument (CSI) was a projective instrument which utilized written responses to hypothetical problem situations. The CSI was administered as a final examination during the last class period. The Medical Service Demand Instrument (MSDI) was developed with the assistance of area physicians and was a method of computing the frequency of three classes of medical symptomatology: stress-related, non-stress-related, and insufficiently discriminative symptoms. The MSDI was used to assess the subject's medical records for the six-month periods preceding and following the coping-skill training.

The hypotheses tested for the effects of the three training curriculums of coping-skill acquisition. The hypotheses also tested for the effects of the three training curriculums on the frequency of medical symptoms, by classification, presented for medical treatment. The SPSS program for analysis of covariance with Scheffé post-hoc comparisons was used to test the hypotheses.

The results of the analyses showed that stress-related symptoms were significantly reduced in the three treatment groups, compared to the control group. No significant differences between groups or between treatments were found for the dependent variables, coping-skill acquisition, frequency of non-stress-related symptoms, or frequency of total symptomatology. Further research is needed to clarify the affective and cognitive factors involved in effective coping-skill acquisition.

To Susan and Darren.

ACKNOWLEDGMENTS

Many good people have provided help, support, tolerance, and understanding during the process of completing this work: my family, Bill Hinds, Dave Wenger, Richard Houang, Al Rabin, Keith Ostien, Maurice Grondin, Jim Conklin, Paul Weikert, Nora Evers, and Jinger Vary. Thank you.

TABLE OF CONTENTS

	Page
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF APPENDICES	viii
Chapter	
I. THE PROBLEM	1
Introduction	1
Need	3
Purpose	4
Hypotheses	4
Theory	5
Overview	11
II. REVIEW OF THE LITERATURE	13
Historical Perspective	13
Coping and Adaptation	15
Cognitive Theory	22
Theories of Emotion	31
Theoretical Orientation of the Present Study	43
III. DESIGN OF THE STUDY	48
Population	48
Sample	49
Procedure	51
Curriculum	53
Affective Curriculum	54
Cognitive Curriculum	55
Affective-Cognitive Curriculum	56
Instruments	56
Coping Skill Instrument (CSI)	56
CSI Rating	58
CSI Rater Reliability	58
Medical Service Demand Instrument (MSDI)	59
MSDI Consistency	61

Page

Research Design 62
Experimental Treatments 62
Validity Concerns 64
Hypotheses 66
Analysis of Data 69
Summary 70

IV. ANALYSIS AND RESULTS 72

Analyses 72
Results 73
Analysis of Hypotheses 75
Summary 82

V. SUMMARY AND CONCLUSIONS 84

Summary 84
Conclusions 88
Limitations of the Study 91
Methodology 91
Instruments 95
Implications for Future Research 96

APPENDICES 98

REFERENCES 181

LIST OF TABLES

Table		Page
3.1	Demographic Data for Sample	51
3.2	CSI Ratings and Reliability Estimate	59
3.3	Percentage Agreement Between Health Central and Community Physicians by Symptom Classification	62
4.1	Means and Standard Deviations, Coping-Skill Acquisition	73
4.2	Means and Standard Deviations, Frequency of Medical Symptomatology	74
4.3	Analysis of Covariance, Coping-Skill Acquisition	76
4.4	Analysis of Covariance, Stress-Related Symptoms	77
4.5	Analysis of Covariance, Total Frequency of Symptoms . . .	81

LIST OF FIGURES

Figure		Page
2.1	General Structure of an Information-Processing System	22
3.1	Independent and Dependent Variables in the Present Study	63

LIST OF APPENDICES

Appendix		Page
A.	HEALTH CENTRAL "HEALTHLETTER"	99
B.	RECEPTIONIST'S RESPONSE TO CALLERS	101
C.	AUTHORIZATION FOR DISCLOSURE OF MEDICAL RECORD INFORMATION	103
D.	CONSENT FORM FOR COPING-SKILL STUDY	105
E.	COPING-SKILLS INSTRUCTORS	107
F.	AFFECTIVE CURRICULUM	118
G.	AFFECTIVE-COGNITIVE CURRICULUM	126
H.	COGNITIVE CURRICULUM	138
I.	MEDICAL SERVICE DEMAND INSTRUMENT (MSDI)	150
J.	COPING-SKILL INSTRUMENT	154
K.	SCORING CRITERIA--COPING SKILLS	163
L.	MEDICAL DEMAND RATING SCALE	165
M.	CLASSIFICATION OF PRESENTING PROBLEMS	169
N.	MSDI COMPARISON RATINGS	172
O.	STRUCTURED EXERCISES	175

CHAPTER I

THE PROBLEM

Introduction

In a special message to Congress in February 1963, President John F. Kennedy stated that mental illness and retardation were among this country's most pressing health issues. Later that same year, the Congress passed the Mental Retardation Facilities and Community Mental Health Centers Construction Act of 1963, later known as Title 2. The Title 2 legislation illustrated a new awareness of the mental health problems of Americans and served to stimulate interest and action in widespread community service delivery systems.

Since then, rising health care costs have prompted coalitions of government, business, and labor to seek new and more efficient forms of health care delivery systems. One form of service delivery that has attracted a great deal of interest within the last few years is that of health maintenance organizations (HMO's). While HMO's are not a new concept in health care delivery, renewed interest in these systems can be attributed to the many advantages they offer over individual fee-for-service approaches. An HMO member is exposed to a multidisciplinary team of health care providers who provide services for the entire range of health care needs. Excellent communication is also maintained with all facets of health care provision through a centralized medical record system. This system enables all service

providers to gain a clear picture of the overall needs of the member. In addition, all of the health care services are provided within an atmosphere stressing health education and primary prevention in both the physical and emotional realms.

It has long been established that psychological factors have an impact on physical well-being. Effective health care services should therefore include services in mental illness prevention. This, however, has not been the case historically. Preventive services have long been called for, theorized, criticized, and generally abandoned as being beyond existing knowledge and capabilities. This is unfortunate since the primary prevention of mental illness is such an important adjunct to health care services in general. Primary prevention also seems to be the only viable alternative to direct mental health services, considering the economics of service demand and manpower requirements.

Some of the difficulty in effecting prevention programs in mental health care can be attributed to a contradiction in professional thinking concerning primary prevention. By definition, the primary preventive approach to mental health care delivery is not concerned with illness or dysfunction. Primary prevention involves providing individuals with the opportunity of acquiring skills necessary to adapt or cope more successfully to their environments. This approach is highly compatible with the contemporary view of psychotherapy as an educational process derived from learning theory. The contradiction occurs within the professional community when the disease model

framework is applied to primary prevention. Mental disorder is not the issue in primary prevention; education is.

The present study is an attempt to implement a prevention program of mental health service within an HMO. The health maintenance atmosphere is an ideal one for such research since the basic focus of this health service delivery system is prevention.

Need

At the 1967 annual meeting of the National Association for Mental Health, Bettis presented a strong argument for redirecting the organization's focus back to one of the original emphases in its charter, the prevention of mental illness (Bettis, 1968). The current literature on primary prevention of mental illness shows, however, that the challenge was not responded to by researchers.

After decades of focusing on treatment, techniques, and training, primary prevention research continues to be inadequately funded (Van Antwerp, 1971). At the same time, this area is perceived by treatment professionals as the most needed area of research (Norris & Larsen, 1976). Pessimistically, most of the research that has been done seems to have "written off" adults. Most research focuses on better educational and parenting practices with children or on the difficulties of changing professional attitudes and practices in the prevention realm (Berlin, 1969; Bower, 1963; Broskowski & Baker, 1974). While these areas deserve attention, they represent only a portion of the prevention spectrum. All too often, practitioners, researchers, and social agencies have acknowledged the need for

practical primary prevention efforts and then assumed that not enough was known about positive mental health skills or not enough money was available for "experimentation" to put any programs into practice. Yet, mental health education is an essential component in any approach to the primary prevention of mental disorder and should be a part of a comprehensive medical service delivery system (Dalzell-Ward, 1976; Stachnik, 1980).

Purpose

The purpose of this study was to evaluate several educational approaches to preventive mental health services within a health maintenance organization. In this study, the behavioral effects of training an HMO population in coping skills were assessed. Classes in affective, affective-cognitive, and cognitive coping skills were given to volunteers in an effort to assess the individual and relative contribution of each type of curriculum to the general coping ability and to the physical well-being of the participants.

Hypotheses

There were two sets of hypotheses for this study. The first set considered the efficacy of coping skill training and instruction on subsequent coping task performance:

Hypothesis 1: There will be significant differences between the treatment and control groups in coping skill ability as measured by the Coping Skill Instrument (CSI).

Hypothesis 2: There will be significant differences between the Affective, Affective-cognitive, and Cognitive treatment groups in coping skill ability as measured by the CSI.

The second set of hypotheses considered the effects of coping skill training on the frequency of demand for medical services:

Hypothesis 3: There will be significant differences between the treatment and control groups in the frequency of demand for medical services as measured by the Medical Service Demand Instrument (MSDI).

Hypothesis 4: There will be significant differences between the Affective, Affective-cognitive, and Cognitive treatment groups in the frequency of demand for medical services as measured by the MSDI.

Theory

It is a difficult task to define healthy adaptive or coping behaviors. Yet, within an educational approach to primary prevention services, such a definition is essential to choosing an appropriate curriculum content. Several authors have attempted such a definition by focusing on broad general criteria (Martin, 1964) or on processes rather than definite end behaviors (Bevan, 1965). These attempts generally ignore certain issues such as personal meaning, self-esteem, interpersonal maintenance, and task completion.

Haan (1963, 1964, 1965), using a psychoanalytic model, took a somewhat different approach. She asserted that coping and defensive processes are identical. Haan differentiated coping from defense on the basis of properties not processes, and proposed specific properties for each. Coping properties involve present-time orientation, a high degree of differentiation, and flexibility in choice and need satisfaction. Defensive behavior is characterized by past-time orientation, undifferentiated responses, and rigid stimulus binding.

Differentiation between successful and unsuccessful coping in the present study loosely followed Haan's example using properties of behaviors as criteria. These properties, as outlined by Haan, center on cognitive and affective activities which afford the organism maximum flexibility in response to the environment. The problem then becomes how to teach cognitive and affective concepts and behaviors that are deemed most efficient in coping and adaptation.

Theories of cognitive activity span an unusually large spectrum in psychology. Human thinking can be described from many different directions, but most generally, thinking is considered an information-processing activity (Erickson & Jones, 1978). Newell and Simon (1972) expanded on this basic principle and asserted that human information-processing systems operate in many different classes or situations, which they called task environments. Newell and Simon were careful to distinguish between the task environment (external) and the internal representation of the task environment, which they labeled the problem space. Their formulation recognized the subjective nature of the interpretive and encoding processes in perception. The problem space, then, is seen as a language-encoded designation of the external task environment. As Newell and Simon then concluded, human information-processing systems are language processes, and a theory of human thinking and problem solving is also a partial theory of linguistics.

The theoretical blend of linguistics, thinking, and problem solving was explicitly stated by Bandler and Grinder in two publications, The Structure of Magic, Volumes I and II (1975, 1976).

Bandler and Grinder focused their theoretical presentation on the internal linguistic representational system of human thinking and problem solving. They defined the mechanisms used to create representational systems, chose three major categories to investigate the completeness of these systems, and proposed interventions to facilitate the adoption of more efficient representational systems.

The system proposed by Bandler and Grinder was used as the major theoretical base for the cognitive portion of the present study. Language usage was viewed as an essential component in thinking and problem solving. The internal representations of the task environment used in problem solving are semantic structures which can be made more complete to aid efficient coping and adaptation.

Theories on the nature and causes of human emotions have been offered from disciplines ranging from philosophy to physiology. Psychological theories about emotions have also abounded. For many years the James-Lange theory (James, 1884) dominated thinking about emotions in psychology. James believed that bodily changes directly follow the perception of some exciting stimulus and that our feeling of these changes is the emotion. The theory states that the bodily changes are experienced as emotions. Due to later research, the theory has generally been abandoned as untenable (Golightly, 1953).

Darwin was perhaps the first to theorize that in man and animals, facial expressions communicate an internal state (Darwin, 1872). He concluded that the expression of emotions is essential to the welfare of group-living species.

More recently, Plutchik (1962) theorized that emotions are an adaptive device which has played a role in individual survival at all levels. Plutchik identified eight basic dimensions of emotion: acceptance, disgust, anger, fear, joy, sorrow, startle, and curiosity.

Plutchik defined emotion as a patterned bodily reaction corresponding to one or some combination of the basic reactions. He attributed little to the role of learning or experience in affect, believing that emotions are similar to unconditioned responses.

The psychoanalytic concept of emotions has undergone several revisions. Rapaport (1953) offered a widely accepted synthesis of the three main phases of development in psychoanalytic thinking about emotions. He theorized that emotions are ego functions. They are adaptive mechanisms which are indispensable signals for reality-testing. Affects are common properties of the species. They are produced by tension between the mutually controlling systems of id, ego, and superego. Affects arise as safety valves when drive discharge by action is not possible.

Schacter and Singer (1962) theorized that cognitive factors are the major determinants of emotion. They found that induced physiological excitation was interpreted as different emotional states, dependent upon cognitive manipulations. Their findings agreed with Duffy (1962), who found no qualitative physiological difference between different emotions.

Leeper (1963) took a more radical approach to the study of emotion. He theorized that emotions are fundamental to human functioning and organization. Leeper argued that emotions should be

considered full-fledged motives. As motivational forces, emotional motives often take precedence over physiological motives and are the most important motivators in modern society. Leeper saw emotions and perceptions as fundamentally the same process, both susceptible to modification by learning and experience.

Tomkins (1965) theorized that the affective system is the primary motivational system in humans. He conceived of affects as innate systems triggered at subcortical centers, where specific programs for each affect are stored. Tomkins identified eight innate affects: interest or excitement, enjoyment or joy, surprise or startle, distress or anguish, fear or terror, shame or humiliation, contempt or disgust, and anger or rage. The human being begins with these innate affective programs. These programs then act as the blueprint for cognition, action, and new objects of learned affect.

Izard (1977) took a similar approach to the study of emotions. He theorized that humans possess ten fundamental emotions, each with unique motivational and phenomenological properties. Izard considered emotions as one of the six subsystems making up the human personality. He theorized that these six subsystems generate four major types of motives: drives, emotions, affect-cognition interactions, and affective-cognitive structures. Izard believed that any one of the four motivational systems may dominate and become primary for a time. Three of the four motivational systems theorized by Izard are strongly influenced by learning and experience.

The literature on emotions has generally shared the assumption that the affective system is a very powerful motivational system in

human beings. It has also been generally theorized that the affective system provides important mechanisms for intra- and interpersonal adaptation. There has been disagreement, however, about the impact that learning and phenomenological factors have on the affective system.

The present study approached primary prevention services in mental health from an educational perspective. From this perspective, the goal is to stimulate motivational systems, which will result in behaviors that promote states of wholeness and well-being. The following propositions characterize the theoretical orientation of this study:

1. Human coping is a complex process of internal cognition and affect, and external behaviors.

2. Both the internal and external components of human coping can become more efficient or appropriate through learning and experience.

3. Optimizing the efficiency or appropriateness of coping behaviors is essential to maintaining wholeness and well-being of mind and body.

4. There are several qualitatively different ways of thinking, and each is important in human coping.

5. Emotion is a highly complex systemic phenomenon involving (a) the brain and nervous system; (b) musculature, in observable expressive patterns; and (c) experience or conscious feeling.

6. The affective system is the primary motivational system in human beings.

7. Cognitive and affective processes maintain a high incidence of interaction and are often functionally inseparable.

8. Affective and cognitive processes and their interactions are amenable to change through learning.

9. Coping is a set of affective and cognitive skills that can be learned within an educational setting.

Overview

In Chapter II, theories of coping and adaptation, cognition, affect, and the extent and direction of mental health research in the areas of health education and primary prevention of mental disorders are reviewed. The chapter begins with a historical perspective on the role of mental health services in health service delivery systems. Particular emphasis is placed on HMO's, on the interaction between psychological and physical well-being, and on primary prevention efforts in mental health. Next, formulations of coping and adaptation are reviewed, and the concept as used in this study is defined. Then, various theories of cognition and affect are reviewed. The theory and research on cognition and affect is summarized, and the theoretical orientation of the present study is delimited.

Described in Chapter III are the subject sample, procedures, curriculum, research hypotheses, instrumentation, analysis, and experimental design of the study. The analysis of data and an interpretation of results for each of the hypotheses are presented in Chapter IV. Chapter V comprises a summary of the research, a

discussion of the findings, limitations of the present study, and implications for future research on primary prevention.

CHAPTER II

REVIEW OF THE LITERATURE

Historical Perspective

During the last several decades, rising health care costs have prompted efforts to develop alternate delivery systems that would provide quality health care at a reasonable price. Although much of the impetus has come from government; consumers, labor unions, industry, health care providers, and insurance carriers have all exhibited concern and interest in developing better, more efficient health care delivery systems. One approach to reorganizing health care systems culminated in the passage of Public Law 93-222, the Health Maintenance Organization Act of 1973. Under the HMO legislation, an HMO is basically described as a system composed of a voluntarily enrolled population which is provided with comprehensive health services on a prepaid basis (Kress & Singer, 1975).

The comprehensive service delivery concepts of the HMO are not new. The Farmers Union Cooperative Health Association of Elk City, Oklahoma, founded in 1929, was the first prepaid group practice in the United States. In 1932, the committee on cost of the American Medical Association endorsed enrollment in hospital-based, prepaid group practice plans. Since then, a number of large-scale health care systems (Ross-Loos Medical Clinic, 1929; Kaiser-Permanente Medical Care Program, 1942; Health Insurance Plan of Greater New York, 1947)

have demonstrated that the HMO concept is a viable alternative health care delivery system (Lum, 1976). It is also generally agreed (USDHEW, 1975) that health maintenance organizations can help to meet the need for quality health care at reasonable cost since the prepaid concept of health care delivery encourages both quality of service and cost efficiency. Under traditional systems of health care delivery, physicians and hospitals are paid on what amounts to a piece-work rate, collecting fees for the treatment of illness units. A significant advantage of HMO's, on the other hand, is their emphasis on primary and secondary prevention of health disorders.

No health system can act on its own to prevent illness. Encouraging behavior that promotes health, through health education, then becomes a paramount issue in HMO's. In the Websterian sense, health is understood to be a condition of wholeness and well-being. As Schofield (1969) pointed out, this definition has too often been interpreted as an implicit dualism, contrasting and separating mental and physical well-being, even though current knowledge has established the close interactive relationship of the two realms (Cobb, Kasl, Chen, & Christenfeld, 1965; Costell & Leiderman, 1968; Jenkins, 1971; Malmo, Boag, & Smith, 1957; Mason, 1959; Nowlin, Eisdorfer, Bogdonoff, & Nichols, 1968; Parkes, Benjamin & Fitzgerald, 1969; Powell, Brasel, & Blizzard, 1968; Van Heijningen & Treurniet, 1966; Williams, Kimball, & Williard, 1972). Mental health education should then be viewed as a priority in any approach to preventive medicine (Dalzell-Ward, 1976; Swisher, 1976). Frisco (1974) stated the argument clearly. He said:

> I believe emphasis on the teaching of mental health is long overdue. We attempt to teach people almost everything except how to live with themselves and how to live with others. Everyone is guilty of passing the buck and everyone assumes that mental health is something one picks up along the way through life--a little at home, a little at school, and a little on the street (p. 21).

Clearly, then, mental health education is an essential component in any approach to primary prevention of mental disorder and should be a part of a comprehensive medical service delivery system. This, however, has historically not been the case. All too often, practitioners and social agencies have acknowledged the need for primary prevention efforts and then assumed that not enough is known about positive mental health skills or not enough money was available for "experimentation" to put any programs into practice (Berlin, 1969; Davidson, 1967; Gurin, 1960). The present study was designed to address this need.

Coping and Adaptation

It is easy to be awed by the coping and adaptation of living things. No matter how simply constructed, every animal has an incredible organization among its parts--an organization that attempts to insure the organism's survival in the face of pressures from within and without. Human coping and adaptive behavior has traditionally presented psychologists with difficulties concerning definition and classification. "Normal" and "healthy" are descriptors fraught with cultural, statistical, and theoretical problems in definition (Offer & Sabshin, 1966). Yet from a preventive perspective, the identification of "healthy" behaviors seems essential to any effort

to increase efficiency in coping and adaptation to problems in living.

Martin (1964), in a cogent discussion of adaptation, surmised that evolutionary and biological levels of adaptive behavior are far clearer and more frequently identified than psychological levels since criteria are more readily discernible. As she pointed out, however, the learning theorist view of adaptation involves two general descriptions of criteria: (a) that adaptive behavior can become more efficient or appropriate as a result of experience, and (b) that some aspects of learned behavior (e.g., social) can be better adapted to existing conditions than others. Bevan (1965), in a prolonged discussion of adaptation, attempted to circumvent the difficulty of criteria by focusing on processes rather than end behaviors. He defined psychological adaptation as two broad processes, the first associated with sensation and perception and the second with learning: (a) a systematic shift in responsivity to stimulation, and (b) instances of acquisition, elaboration, or refinement of responses that attenuate stimulation, particularly noxious stimulation (p. 79). These processes, then, are behaviors that increase or decrease stimulated response and learned behaviors which move the organism away from (in the Horneian sense) noxious stimulation. But the psychological aspects of a process approach, as Hamburg and Adams (1967) pointed out, echo the traditional psychiatric tendency to treat all human behavior as being directed toward avoiding painful elements at all costs, even self-deception. They theorized that there may be other classes of responses which rest heavily on personal meaning and

experience, and which are concerned with additional issues such as self-esteem, interpersonal maintenance, and task completion.

Haan (1963, 1964, 1965), in an interesting series of experiments, proposed a psychoanalytic model of coping and defense mechanisms that enjoys popular support in the literature and that avoids the problems of criteria and negative orientation. She proposed a model of ego functioning which assumes that the processes of coping and defense are identical, coping mechanisms and defense mechanisms being two sides of the same coin. Differentiation is on the basis of properties, not processes. In The Ego and the Mechanisms of Defense, Anna Freud (1937) commented that the defenses "have their counterpart in the ego's attempts to deal with the external danger by actively intervening to change the conditions of the world around it. Upon this last side of the ego's activities I cannot enlarge here" (p. 191). Haan (1963) enlarged this proposition to include coping processes as a counterpart that deals with internal in addition to external dangers and presented six properties used to distinguish between coping and defensive behaviors. They are:

	COPING	DEFENSIVE
1.	Behavior involves choice and thus is flexible and purposive	Behavior is rigid, automatized, and stimulus bound
2.	Behavior is pulled toward the future and takes account of the needs of the present	Behavior is pushed from the past, and the past compels the needs of the present
3.	Behavior is oriented to the reality requirements of the present	Behavior is essentially distorting of the present situation

4.	Behavior involves secondary process thinking, conscious and preconscious elements, and is highly differentiated in response	Behavior involves greater quantity of primary process thinking, partakes of unconscious elements, and thus undifferentiated in response
5.	Behavior operates within the organism's necessity of "metering" the experience of disturbing affects	Behavior operates with the assumption that it is possible to remove disturbing affects magically
6.	Behavior allows forms of impulse satisfaction in an open, ordered, and tempered way	Behavior allows impulse gratification by subterfuge

(p. 2)

Haan then proposed a list of homologous ego processes that characterize the various coping/defense mechanisms:

Processes of Ego Mechanisms

I. Discrimination (cognitive): the subject has to separate idea from feeling, idea from idea, and feeling from feeling.
   A. Isolation: the subject keeps apart ideas that belong together emotionally, or keeps ideas and their corresponding affects separated (defensive).
   B. Objectivity: the subject can separate his ideas from his feelings, so that he achieves an objective evaluation or judgment where a situation requires this. He is able to separate his feelings from one another when he is of two minds (coping).

II. Detachment (cognitive): the subject lets his mind "roam freely," speculates, and analyzes without stimulus restriction.
   A. Intellectualization (a subcategory of isolation): the subject retreats from impulse and affect to a preoccupation with words and abstractions (defensive).
   B. Intellectuality: the subject is capable of detachment in an affect laden situation which requires impartial analysis and awareness, or is otherwise detached from restrictions of the environment, experience, or self so as to allow thoughts free rein (coping).

III. Means-end symbolization (cognitive): the subject analyzes the causal texture of experience and anticipates outcomes.
   A. Rationalization: the subject offers an apparently plausible causal context to explain behavior and/or

intention, which allows impulse gratification sub rosa, but omits crucial aspects of the situation, or is otherwise inexact (defensive).

B. Logical analysis: the subject is interested in analyzing thoughtfully, carefully, and cogently the causal aspects of situations, personal or otherwise. He proceeds systematically in his exposition, or if he backtracks, he is able to reorganize his explanations (coping).

IV. Delayed response: the subject holds up decisions and time-binds tension due to situational complexity, lack of clarity, or personal noncommitment.

A. Doubt and indecision: the subject is unable to resolve ambiguity. He doubts the validity of his own perceptions or judgments and is unable to commit himself to a course of action. He hopes that problems will solve themselves or that someone will solve them for him. The subject states situations or feelings, then qualifies them into meaninglessness (defensive).

B. Tolerance of ambiguity: the subject withstands cognitive and affective complexity of dissonance. He is capable of qualified judgments, is able to think in terms of gray rather than black and white. He does not need to commit himself to clear-cut choices in complicated situations where choice is impossible (coping).

V. Selective awareness: the subject is able to focus his attention.

A. Denial: the subject denies facts and feelings, present or historic, that would be painful to acknowledge. He may have a Pollyanna or oblivious attitude (defensive).

B. Concentration: the subject is able to set aside recognizable disturbing or attractive feelings or thoughts in order to concentrate on the task at hand (coping).

VI. Sensitivity: the subject apprehends and is aware of the unexpressed feelings or ideas of others.

A. Projection: the subject attributes objectionable internal tendencies to another person or persons in the environment and does not re-acknowledge or recognize the source as himself. The objectionable tendencies that are projected may be either id impulses and any of their derivatives, or superego attitudes and any of their derivatives (defensive).

B. Empathy: the subject sensitively puts himself in the other fellow's boots; he is able to imagine how the other fellow feels and experiences this en petito himself. His relationships take account of the feelings of others (coping).

VII. Time reversal: the subject replays or recaptures experiences, feelings, attitudes, and ideas of the past.
   A. Regression: the subject resorts to evasive, wistful, ingratiating, non-age-appropriate behavior to avoid responsibility, aggression, and generally unpleasant demands from others and self, and to allow concomitant indulgence (defensive).
   B. Regression in service of the ego (playfulness): the subject utilizes past feelings and ideas that are not directly ordered or required by the practical, immediate elements of the situation in an imaginative way in order to enrich his solution of problems, his handling of situations, and his enjoyment of life. His regression is situationally adaptive and responsive (coping).

VIII. Impulse diversion (impulse economics): the subject modifies or changes the object of an impulse.
   A. Displacement: the subject temporarily and unsuccessfully diverts unacceptable impulses, or affects, from their original objects or situations and then allows expression in a situation of greater internal or external permission. This may occur as a temporal displacement (e.g., carrying frustrations home from the office), or as an object displacement (e.g., resentment toward parents or authorities is expressed in hostility toward the weak and defenseless --children or members of minority groups) (defensive).
   B. Sublimation: the subject finds alternative channels and means, which are socially accepted, tempered, and satisfying, for the open expression of basic impulses. Impulse expression is thus evident and observable, but its temporal and object expression is personally rewarding to the subject rather than being productive of widening difficulties (coping).

IX. Impulse transformation (impulse economics): the subject reverses the meaning of impulses, so that they are expressed as their opposites.
   A. Reaction formation: the subject's intentional impulse expression does not admit the possibility or partial presence of socially unacceptable tendencies (hostility, dependency, opposite sex identifications, greed, dirtiness, etc.). As a result the subject is constantly vigilant and "protests too much" that his behavior and thoughts are exemplary in terms of society's sanctions. The monolithic and overdetermined aspects of this defense can produce a defensive instability in which the rejected impulses are sporadically and eratically expressed (defensive).
   B. Substitution: the subject's behavior does not show socially unacceptable impulses (hostility, dependency, opposite sex identification, greed, dirtiness, etc.).

He seems to have successfully neutralized (Hartmann, 1955) impulses or achieved a "functional autonomy" (Allport, 1937) so that very little of his energy needs to be devoted to maintaining socialized behavior (coping).

X. Impulse restraint (impulse economics): the subject controls impulses by inhibiting their expression.
   A. Repression: the subject attempts to control his impulses. As he does not make a distinction between thought and action, the ideational representatives of his impulses are as threatening as the behavior itself; consequently he excludes ideational representation from his thoughts, and success in excluding it from behavior varies among the subjects and temporarily varies within the subjects. Extensive repression can be manifested as an ideational constriction and a naive forgetfulness (defensive).
   B. Suppression: the subject holds infeasible and inappropriate impulses in abeyance and restrains such expression until an appropriate time or place presents itself. He makes a distinction between thinking and acting, so that the ideational representative of an impulse is not in itself threatening and, therefore, put out of consciousness (coping) (pp. 4-6).

So, for the purposes of the present study, an educational perspective was adopted in which coping behaviors were described as behaviors that are amenable to change, behaviors that can become more efficient, as a result of personal experience. Efficient coping behaviors can move the organism both toward and away from noxious stimulation. Evaluation must therefore take other elements such as task completion, interpersonal contact, maintenance of self-esteem, as well as termination of painful elements, into account.

The most important common property of efficient coping behaviors is flexibility. Successful coping demands that the organism purposively maintain a high degree of flexibility in internal and external interactions and that no particular portion of possibility be arbitrarily or automatically excluded. To maintain flexibility, the

organism is also required to highly differentiate elements in the phenomenal field and to delay responses at will. Differentiated elements of most concern are those of past, present, and future events, and cognitive and affective experiences.

Successful coping, then, can be described as flexible, highly differentiated, present-oriented behavior that operates by affective and cognitive processes.

Cognitive Theory

Cognitive theory currently encompasses an unusually large spectrum of psychology and can be considered almost analogous to human experimental psychology couched in information-processing terms (Erickson & Jones, 1978). In their definitive work, Human Problem Solving, Newell and Simon (1972) took this proposition one step further by theorizing that humans, in thinking, are in fact information-processing systems (IPS), and offered the general model shown in Figure 2.1.

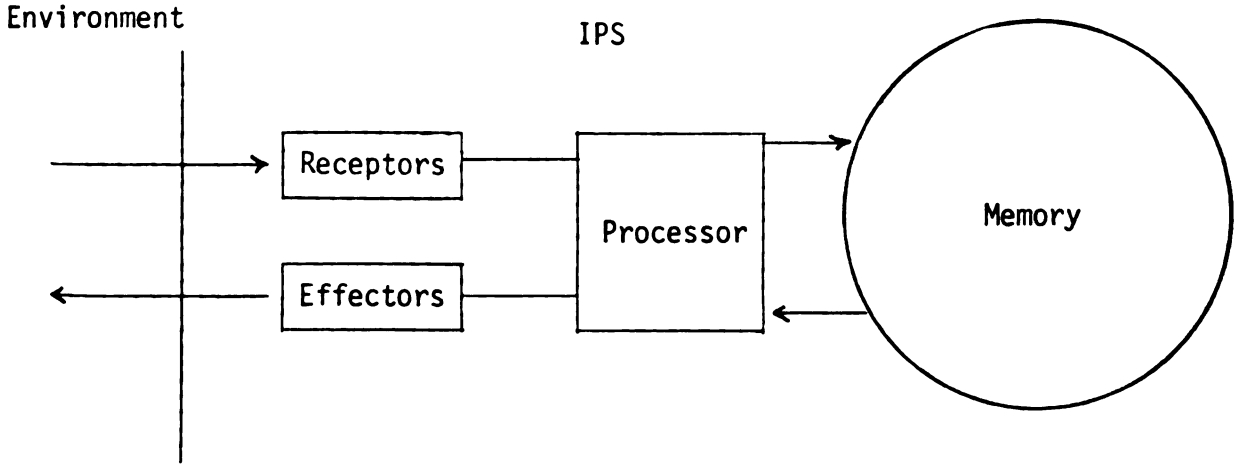


Figure 2.1.--General structure of an information-processing system. (From Newell & Simon, 1972, p. 20.)

Newell and Simon asserted that human IPS's function in a number of different classes of situations, which they called task environments, involving goals, problems, or tasks. In speaking about the task environment, Newell and Simon were careful to distinguish betweeen the environment itself and the internal representation of the task environment used by the subject, which they termed the problem space. This internal representation, the problem space, is an interpretation of the task environment that is accomplished by a designating symbol structure, language. Newell and Simon described the problem-solving process in the following way:

> An initial process, the input translation, produces inside the problem solver an internal representation of the external environment, at the same time selecting the problem space. The problem solving then proceeds in the framework of the internal representation thus produced--a representation that may render problem solution obvious, obscure, or perhaps unattainable (p. 88).

So, by the time an individual deals with the internal representations (symbolic structures), they have already been encoded. They are not dealing with the task environment any longer; they are dealing with the designations rather than the external objects. IPS's are then language processes, and a theory of problem solving or thinking is also a partial theory of linguistics. As Newell and Simon stated, "our theory of problem solving has strong implications for what the linguist calls the deep structure of language" (p. 6).

The goal of linguistic theory is a description of what it is that a human being knows when they know how to speak a language. In 1957, Chomsky formulated a model, Transformational Grammar, which was based on the distinction between surface and deep structures.

According to the theory, deep structure is represented by a "kernel" in surface structure. A kernel sentence is a simple, declarative one, such as "Susan drove the car." The meaning of this sentence is the kernel, whereas the form of the sentence is merely the husk, which can be "transformed" in a number of different ways (i.e., The car was driven by Susan). A transformation, then, is an explicit statement about which pattern or form a sentence takes, something native speakers intuitively recognize.

Fodor (1975) and Miller and Johnson-Laird (1976) argued, in essence, that semantic structure, deep structure, is a reflection of the human mind's organization of all experience.

The picture that emerges, then, is one of linguistic relativity, the power of the language system to define the internal problem space. Human beings think and problem solve in a structured, symbolic representational system, language. This representational system is used to form a personal interpretation of the external situation and may or may not be accurate. When communicating (written or verbal), humans express their personal interpretations in their semantic or deep structure.

The theoretical blend of human thinking and problem solving, and linguistics, has been explicitly stated by Bandler and Grinder in two publications, The Structure of Magic, Volumes I and II (1975, 1976). The following section was based on their theoretical formulations.

All human beings experience periods of pain and discomfort, disappointment and frustration. Some people experience these states from

a perspective of hopelessness, seeing no choices or alternatives. Others respond creatively to these situations and cope effectively. The difference between these two sets of responses is that the effective copers have a rich representational system or model of the world, which affords a wide range of options.

People who maintain an atrophied representational system are not sick or bad. No matter how peculiar, human behavior always makes sense and people make the best choices available within their own personal models. The irony of the situation is that the processes used to develop rich models of the world are the same processes used to develop atrophied models. These processes focus on the ability to manipulate symbols. There are three general mechanisms that are used to create models of the world: Generalization, Deletion, and Distortion.

"Generalization is the process by which elements or pieces of a person's model become detached from their original experience and come to represent the entire category of which the experience is an example" (1975, p. 14). Generalization is a process by which an individual constructs an entire class from an isolated event. For example, an individual may experience a specific situation in which expressing anger facilitated the attainment of their desired goals. They may then "generalize" this experience to form the class that all expressions of anger facilitate the attainment of desired goals. An example of a clearly adaptive instance of Generalization involves fire. An individual who experiences the pain of a burn from an open flame quickly constructs the class that fire produces burns, which hurt.

"Deletion is a process by which we selectively pay attention to certain dimensions of our experience and exclude others" (p. 15). Deletion involves ignoring portions of the available sensory data and constructing experiences from certain features which are attended to. Maintaining a conversation in a crowded room or not hearing the substance of clear communications are examples of Deletion.

"The third modeling process is that of Distortion. Distortion is the process which allows us to make shifts in our experience of sensory data" (p. 16). Technically speaking, the two previous modeling processes, Generalization and Deletion, are both special instances of the process of Distortion. Distortion occurs often in communications when one party attends to the messages presented by a second party and then denies the validity of the expressed message, "He doesn't really mean it," or assigns a meaning to the message from an egocentric position, "What she really means is. . . ."

These three mechanisms can be used to create models of the world which are complex and divergent and facilitate coping, or they can be used to build models which are atrophied and constrained and promote nonadaptive behaviors.

Transformational grammarians have developed a formal model of our language that reduces the incredibly rich world of experience, as represented in language, into a set of rules of expression. They have chosen to study not the expressions themselves, but the rules for forming the expressions, called syntax. They also have made the simplifying assumption that the rules for forming the set of rich expressions can be studied independently of content. This model, or

set of rules, provides a solution to whether a particular group of words is a sentence or not, something a native speaker knows intuitively.

Bandler and Grinder selected three major categories of linguistic intuitions: Well-Formedness, Constituent Structure, and Logical Semantic Relations.

I. Well-Formedness: The consistent judgments which native speakers make about whether or not groups of words are sentences of their language. Consider the following three groups of words:

(3) Even the president has tapeworms.
(4) Even the president has green ideas.
(5) Even the president have tapeworms.

The first is identified as well formed; that is, it conveys a meaning to the native speakers and they recognize it as being syntactically well formed; (2) is semantically ill formed; that is, it communicates no meaning that the native speaker recognizes as possible; (3) is syntactically ill formed although we may be able to assign some meaning to it.

II. Constituent Structure: The consistent judgments that native speakers make about what goes together as a unit or constituent inside a sentence of their language. For example, in the sentence

(6) The Guru of Ben Lomond thought Rosemary was at the controls.

the word The and Guru go together in some way as a unit that Guru and of do not. These smaller level constituents go to make up larger units; for example, The Guru and of Ben Lomond go together in some way that Ben Lomond and was do not.

III. Logical Semantic Relations: The consistent judgments which native speakers make about the logical relations reflected in the sentences of their language.

1. Completeness: Native speakers, when presented with a verb of their language, are able to determine how many and what kinds of things between which this verb connects or describes a relationship. For example, the verb kiss in English implies a person kissing and a person or thing being kissed. The verb hit implies a person or thing hitting, a person or thing being hit, and an instrument being used for the hitting.

2. Ambiguity: Native speakers recognize that a single sentence such as

   (7) Investigating FBI agents can be dangerous.
   or
   (8) Maxine took Max's shirt off.

   communicates two distinct meanings. Sentence (7) can be understood to mean either:

   (9) FBI agents who are conducting investigations can be dangerous.
   or
   (10) To investigate FBI agents is probably dangerous.

   In sentence (8), it is unclear whether Maxine was wearing Max's shirt and took it off herself or she took Max's shirt off Max himself.

3. Synonymy: Native speakers recognize that both of the following sentences have the same meaning or convey the same message.

   (11) Sandy looked up the number.
   (12) Sandy looked the number up.

4. Referential Indices: Native speakers can determine whether a word or phrase picks out a particular object in their experience such as my car or whether it identifies a class of objects: cars. Furthermore, they make consistent judgments about whether two (or more) words refer to the same object or class, e.g., the words Jackson and himself in the sentence

   (13) Jackson changed himself.

5. Presuppositions: Native speakers can determine what the experience of the speaker is for him to say a sentence. For example, if I say the sentence

   (14) My cat ran away.

   you are entitled (have reason) to believe that, in my experience of the world, it's true that

   (15) I have a cat.

These three general categories of intuitions that human beings have about their language are represented explicitly in the transformational model (pp. 25-27).

Transformational Grammar specifies the ways in which surface and deep structures are related. There are two major classes of transformations: Permutation Transformations and Deletion Transformations.

Permutation Transformations are word-order-changing transformations such as:

a. John committed the crime.
and
b. The crime was committed by John.

Deletion Transformations are transformations in which part of the logical semantic representation present in the deep structure has been left out or deleted, even though the meaning appears to remain the same. An example of a Deletion Transformation is:

a. Jim was frightened easily by the dark.
and
b. Jim was frightened easily.

Another important way in which deep structure representation may differ from surface structures is by the process of Nominalization. Nominalization is a transformation that changes a word occurring in the deep structure as a process word, a verb or predicate, into an event word or noun, in the surface structure. Nominalizations can occur alone:

a. Susan knows that she fears her parents.

b. Susan knows her fear of her parents.

or in combination with Permutation or Deletion Transformations:

a. Susan knows that she fears her parents.

b. Susan knows the fear.

c. The fear was known by Susan of her parents.

Referential indices are involved in the transformational model in a number of ways, but for the purposes of the present discussion only one case is deemed important, in relation to Deletion Transformations.

Deletion Transformations may legitimately be performed if the element which has been deleted is an indefinite phrase (i.e., to someone, something, with something). Notice, however, that a Deletion Transformation performed on a definite element (i.e., to the store, her sister, my dog) that has a referential index that connects it to some person or thing results in a loss of information and is deemed illegitimate.

Bandler and Grinder pointed out that the terminology and technical details of linguistics are not the important features of their presentation. They viewed the importance in the fact that each person who is a native speaker has an intuitive understanding of the rules that can now be made explicit. They summarized as follows:

> The parts of the transformational model relevant for our purposes have been presented. Viewed together, they constitute a representation of the process that humans go through in representing their experience and communicating that representation. When humans wish to communicate their representation, their experience of the world, they form a complete linguistic representation of their experience; this is called the Deep Structure. As they begin to speak, they make a series of choices (transformations) about the form in which they will communicate their experience. These choices are not, in general, conscious choices. Our behavior in making these choices is, however, regular and rule governed. The process of making this series of choices (a derivation) results in a Surface Structure--a sentence or sequence of words which we recognize as a well-formed group of words in our language. This Surface Structure itself can be viewed as a representation of the full linguistic representation--the Deep Structure. The transformations change the structure of the Deep Structure--either deleting or changing the word order--but do not change the semantic meaning. . . . The model of this process is a model of what we do when we represent and communicate our model--a model of a model--a Meta-model (pp. 35-36).

Language use, then, can be viewed as an essential component, perhaps even a determinant, in the problem-solving process. Internal

representations (symbol structures) of the external environment, rather than the external objects themselves, are used by the organism during the problem-solving process. The internal representations used in problem solving are semantic structures, what linguists call deep structures, which render problem solution "obvious, obscure, or perhaps unattainable" (Newell & Simon, 1972).

Representational systems then become the central issue within this approach to cognitive behavior. Bandler and Grinder selected several transformational principles to clarify personal representational systems. They then used these principles to describe intra- and interpersonal behavior on the linguistic level.

Cognitive training to produce behavior change is well reported in the research literature (Farber, 1963; Loveless & Brody, 1974; Meichenbaum & Cameron, 1974; Meichenbaum & Goodman, 1971). No research is available on training an HMO population in linguistic principles to further coping skills or reduce medical demand.

Theories of Emotion

Human emotions have been the subject of interest since the earliest ages and have been described in different ways, depending on the period of history and dominant viewpoint of the time. Philosophers from Aristotle to Kant have discussed the nature of emotions. Physiologists have attempted to discover their biological and evolutionary roots. Psychologists have worked to document their experience and observable behavior. Historically, interest and attempts at understanding emotions can be classified in many ways: physiological,

evolutionary, instinctual, phenomenological, dynamic, etc. (Tomkins, 1965). The wide range of description aptly illustrates the complexity of the construct of emotion. The following section is a survey of thinking on the nature and causes of emotion.

For many years the James-Lange theory of emotion (James, 1884) dominated psychological thinking about emotions. James' thesis was contrary to the common-sense way of thinking about emotions popular at that time and asserted that the mental perception of some fact excites the mental affection called emotion, which in turn gives rise to the bodily expression. The theory contended that bodily changes follow directly the perception of the exciting fact and that our feeling of these changes is the emotion. The theory stated, then, that a stimulus situation produces bodily changes (visceral for James, circulatory for Lange) and that these changes are experienced as emotions (Arnold, 1968). Although the theory has had an important influence in the interest and study of emotion, it answers few questions about emotions and has generally been abandoned (Golightly, 1953). Darwin was perhaps the first to theorize that in animals, as in man, facial expressions communicate an internal state, how the organism feels. In his book, The Expression of Emotion in Man and Animals, Darwin (1872) offered descriptive, functional, and causal data taken from his own observations, as well as the literature and observations of others. He concluded that the expression of emotions was essential to the welfare of group-living species by alerting members to the internal states of other members of the group.

More recently, Plutchik (1962) viewed emotions as relevant to the entire evolutionary scale and theorized that emotion is an adaptive device that has played a role in individual survival at all levels. In his book, The Emotions: Facts, Theories, and a New Model, Plutchik suggested that "emotion should be related to some kinds of basic, adaptive, biological processes" (p. 55). He identified eight basic prototypic dimensions, which he theorized are the basic dimensions of emotion. The basic dimensions of adaptive behavior and their related emotions are:

Prototypic Dimension			Emotion
Incorporation	--	ingestion of food	Acceptance
Rejection	--	riddance reaction, excretion, regurgitation	Disgust
Destruction	--	removal of barriers to satisfaction	Anger
Protection	--	response to pain or threats of pain or harm	Fear
Reproduction	--	responses associated with sexual behavior	Joy
Deprivation	--	loss of incorporated or contacted object	Sorrow
Orientation	--	response to contact with new object	Startle
Exploration	--	more or less random activities in environment	Expectation or Curiosity

(Izard, 1977).

Plutchik drew an analogy between emotions and the color wheel. Like the color wheel, which organizes the primary colors of red, blue, and yellow, affects that are most similar to one another are juxtaposed and those most dissimilar to one another are situated opposite each other on the wheel. This emotion wheel is also incorporated into a structural model that regulates intensity to each of the basic emotions.

Plutchik defined emotion as a patterned bodily reaction corresponding to one or some combination of the basic prototypic reactions, and left room for the role of learning or experience in affect only in a very special sense. He wrote:

> A particular reinforcement history may determine how persistent and how generalized an organism's emotional reactions may be, but it does not produce the reactions, which are more like operant level type functions, or like unconditioned responses (p. 170).

To understand the psychoanalytic concept of emotions, a synthesis must be made of several phases of theory revision, since emotion, as other portions of the theory, has been revised, developed, and changed several times. Rapaport's (1953) synthesis and summary is perhaps the most widely accepted and was the basis for the following description.

Formulations for a psychoanalytic theory of affect must be synthesized from fragments originating from three phases of development in psychoanalytic theory. The beginning phase of development of the theory of affect equated affect with the quantity of psychic energy, which was later conceptualized as drive-cathexis. But while later formulations distinguished cathexis of affects from drive-cathexis, the initial treatment of affects was undifferentiated and stood for all. The role of affects in symptom formation postulated that affects that were denied discharge became fixated to the pathogenic fantasy or found outlet in conversion symptoms. This same approach was taken concerning the role of affects in therapy. It was theorized that the dammed-up affects could be discharged, draining the pathogenic fantasy of its force and influencing symptomatology. Rapaport stated that

this nondifferentiated use of the concept affect as psychic energy persists to this day within psychoanalytic literature even though psychoanalytic theoretical development has long since abandoned such a position. The second phase of psychoanalytic development concerning affect was outlined in the publication of The Interpretation of Dreams (Freud, 1900), in which the economic point of view, in particular the theory of cathexis, was a focus. The Interpretation of Dreams broke sharply with the initial concept of affect as drive proper and viewed affects as motor and secretory (discharge) processes controlled by the unconscious. Affect discharge, then, becomes a short-cut to tension decrease by altering the subject's own body without alteration of the external world. Thus, tension disposal was now differentiated into affect discharge and action. It seems to have been assumed that if drive-action discharge of cathexis were possible, no affective discharge would take place. This approach fostered a conflict-theory interpretation of affects, a conflict between mounting tension and discharge preventing reality. But this approach has some inherent limitations, namely, the need to postulate a structural component that takes into consideration drive thresholds, both inborn and defensive. Thus, affective formulations to this point are to be considered an id-theory of affect and leave many questions unanswered.

The third phase of psychoanalytic treatment of affect characterizes affects as ego functions, which are no longer viewed as simple safety valves for drive cathexis, but are seen as signals used by the ego. Rapaport offered the following synthesis as a bare outline of psychoanalytic theory of affect:

1. Affects use inborn channels and thresholds of discharge which may be considered pre-existing the differentiation of the ego and id. Affects are then common properties of the species and perhaps have roots in the social role of communication and empathy.

2. Affects arise as safety valves when drive discharge by drive action is not possible. Tension levels for discharge are probably determined by the amount of cathexis the inborn affect-discharge channels can carry.

3. Affective-charge, if discharged, may arouse further tensions and are therefore often defended against and become motives of defense. Under special conditions affective-charge may also play the role of motivation.

4. Structurally, the integration of the motivational systems into id, ego, and super-ego results in mutually controlling systems of organization, which form a complex balance to produce affects as products of tension between all three.

5. Affects can be viewed as adaptive mechanisms that offer limited attunement to external stimuli and as indispensable signals for reality-testing.

Schachter and Singer (1962) took a somewhat different approach. They theorized that cognitive factors are the major determinants of emotional states. In their research they found that a single state of epinephrine-induced sympathetic activation produced both euphoria and anger in their subjects and that the affective state was dependent on cognitive manipulations. Another finding supports the possibility of having very high levels of activation without subjective

descriptions of emotionality. These findings agree with Duffy (1962), who held that high levels of activation can be present without a qualitative difference in physiology between different emotions. Schachter and Singer believed that cognitions from the immediate situation as interpreted by past experience provide a framework that the individual uses to understand and label emotions.

Leeper (1963) posited a more inclusive and radical approach to the study of emotion. He theorized that emotions are fundamental to human functioning and organization and made seven main points in his explanation:

1. Emotions should not be conceptualized from the traditional introspective approach, but as full psychological processes. As processes, emotions exert influence on the remainder of the psychological system. The emotional process can be conscious or unconscious.

2. Emotional processes are full-fledged motives. Both hunger (physiological) and fear (emotional) are motivational forces since both stimulate the organism to behavior, perception, and thinking.

3. The relationship between emotional motives and motives in general can be illustrated by a motivational continuum that positions psychological or emotional motives on one end and physiological or motives in general at the other. Some innate or instinctual processes may accurately be classified as emotional, but learned meanings predominate on the emotional end.

4. The most important motives in modern society are emotional. This does not mean to imply that physiologically based motives are

unimportant in human behavior. The inference is that once some fairly adequate means of satisfying physical cravings have been achieved, emotional motives for distant goals and objectives and for immediate satisfactions take precedence.

5. Emotional processes ought not to be seen as simply influencing perception, as dependent on or a result of perception. Emotional processes <u>are</u> perceptual processes. While perceptual processes are not all motivational in nature, a good portion of perceptual processes, particularly unconscious perceptual processes, are emotional and motivational in nature.

6. If emotional processes are indeed perceptual processes, it follows that after the earliest period of life, human development and differentiation result in emotional processes that are increasingly diverse and individualized. This is because if anything marks perceptual processes in addition to their dynamic organizational characteristics, it is their susceptibility to modification by learning and experience.

7. There is some truth to the propositions that emotions are changed through "emotional discharge" and by "making emotions conscious," by "extinction" and other methods. From a perceptual-motivational viewpoint, each of these methods, when successful, means that a "new and more compelling perceptual organization has been developed" (p. 247).

Leeper concluded that there are differences between emotions and other motives and between emotional processes and perceptual processes. But he contended that ignoring the powerful similarities

by continuing in certain habits of thought concerning emotions has greatly contributed to our lack of knowledge and understanding of emotions.

Tomkins (1965) theorized that the affective system is the primary motivational system and that the drive system is the secondary motivational system. Tomkins believed this to be so since the drive system necessarily requires amplification from the affects, but the affective system needs no such amplification from the drive system. Second, Tomkins argued, the affective system has more general properties that position it as the central motivational system for human beings by allowing generality of time, intensity, and density. The drive system operates under a rhythmic schedule, constrained by specific periodic fluctuations. The affective system is under no such constraints. Affects can operate for any period of time, or never; can operate strongly or weakly, or strongly now and weakly later.

Tomkins conceived of affects as primarily facial behavior and secondarily as bodily behavior, outer skeletal and inner visceral behavior. These behaviors are innately endowed and triggered at subcortical centers, where specific programs for each affect are stored. Tomkins identified eight innate affects, three positive and five negative. They are:

Affect	Facial Features
Interest and excitement	Eyebrows down, stare fixed or tracking object
Enjoyment or joy	Smiling response
Surprise or startle	Eyebrows raised and eyeblink
Distress or anguish	Crying response

Fear or terror	Eyes frozen open in fixed stare or moving away from dreaded object, skin pale, hair erect
Shame or humiliation	Eyes and head lowered
Contempt or disgust	Upper lip raised in a sneer
Anger or rage	Frown, chenched jaw, red face

(Tomkins & Izard, 1965, p. 15).

The human being begins with these eight innate affective programs, which then act as the blueprint for cognition, action, and new objects of learned affect. Memory and cognition acquired with further development then become activators of affect as powerful as the innate mechanisms.

In a similar approach, Izard (1977) viewed the personality as composed of six subsystems: homeostatic, drive, emotion, cognition, perception, and motor, all having some degree of autonomy but complexly interrelated. Izard made five key assumptions:

1. There are ten fundamental emotions that make up the principal motivational system in human beings.

2. Each fundamental emotion has its own unique motivational and phenomenological properties.

3. The fundamental emotions lead to different inner experiences and different behavioral consequences.

4. Emotions interact with each other; one emotion may activate, amplify, or attenuate another.

5. Emotional processes interact with and exert influence on homeostatic, drive, perceptual, and cognitive processes.

Izard theorized that the six subsystems of personality generate four major types of motives: drives, emotions, affect-cognition

interactions, and affective-cognitive structures. He defined each as follows:

> Drives--motivation resulting from tissue deficit or change that is cyclic in nature.
> Emotions--experiential/motivational phenomena that have adaptive functions independent of tissue needs.
> Affect-cognition interaction--motivational state resulting from the interaction between an affect or pattern of affects and cognitive processes.
> Affective-cognitive structures--psychological organizations of affect and cognition, traitlike phenomena that result from repeated interactions between particular affects and particular cognitions.

Izard believed that any one of the four motivational systems may dominate the individual and become primary for a time. Izard, as have many of the affect theorists, listed ten fundamental emotions that operate at the phenomenological level. He theorized that the fundamental emotions can operate relatively independently of each other and cognition; however, cognitive interactions with emotions occur almost continually. Izard offered the following definition of the emotion process:

> A complex process with neurophysiological, neuromuscular and phenomenological aspects. At the neurophysiological level, emotion is defined primarily in terms of patterns of electrochemical activity in the nervous system, particularly in the cortex, the hypothalamus, the basal ganglia, the limbic system, and the facial and trigeminal nerves. The cutaneous nerves in the face and the proprioceptors in the facial muscles also participate in emotion at the neurophysiological level. It is assumed that emotion proper is a function of the somatic nervous system (controller of the voluntary actions) and that the somatically activated emotion recruits the autonomic nervous system (controller of involuntary functions such as glandular secretions and heart rate), which in turn may amplify or sustain the emotion over time. At the neuromuscular level emotion is primarily facial activity and facial patterning, and secondarily it is bodily (postural-gestural, visceral-glandular, and sometimes vocal) response. At the phenomenological level emotion is essentially motivating experience and/or experience which has immediate meaning and significance for the person (pp. 48-49).

As the preceding section illustrated, human emotion is characterized by wide-ranging and complex descriptors covering physiological, evolutionary, phenomenological, behavioral, perceptual, and cognitive realms.

Whatever the descriptor, most researchers and theorists agree that the affective system is a powerful motivating system in human behavior. There does seem to be some measure of disagreement, however, about the role of learning and experience in the formation and development of the affective system. Several theorists have inferred that emotions are innate systems that are not amenable to change. Others, such as Leeper, Tomkins, and Izard, have theorized that the affective system is highly modifiable.

The impetus for research in affective training was provided by the work of Rogers (1951) and the client-centered orientation. Training counselors in empathic responding and positive regard quickly became an accepted component in many professional training programs. Briefly, empathy consists of the ability to recognize and understand another's feelings and to communicate this understanding. A structured skill-building model for training in Empathic Understanding, Attitude and Value Clarification, and Decision Making was described by Truax, Carkhuff, and Douds (1964) and Truax and Carkhuff (1967). This model has become a standard for short-term training programs for lay and professional helpers.

Carkhuff (1971) further advocated that his interpersonal training model be applied to direct training of clients in empathic responding. Pierce and Drasgow (1969) employed training in interpersonal

skills with a group of hospitalized patients who were not being otherwise treated. Comparing the trained patients to patients in four other treatments, they found that interpersonally trained patients demonstrated significant improvement and functioned at significantly higher levels following treatment. Follow-up research indicated that the training-group members also left and stayed out of the hospital with greater frequency than did patients treated with drugs, individual therapy, group therapy, or a combination of the three.

Cabush and Edwards (1976) demonstrated the effectiveness of training college students in facilitative self-responding. They found that students trained according to Carkhuff's empathy model showed significant increases on eight variables compared to students given individual counseling.

Training in empathy and interpersonal skills has been applied to a number of situations (Berenson, 1970; Berenson, Carkhuff, & Myrus, 1966; Bierman, Carkhuff, & Santilli, 1971; Carkhuff, 1969c; Carkhuff & Griffin, 1971b; Carkhuff & Truax, 1965a, 1965b) with consistently positive results. No research is available on the effects of training in empathy and interpersonal skills on demand for medical service.

Theoretical Orientation of the Present Study

Primary prevention is a term borrowed from the field of public health and refers to the most basic level of health care service delivery. Secondary prevention refers to activities such as early case finding, diagnosis, and treatment of disorders. Tertiary

prevention concerns treatment of disorders to restore functioning. Primary prevention is the unconditional use of the term "prevention." It involves activities designed to circumvent or prevent a state of disease in the human being, not by treating existing symptoms, but by engaging in activities designed to prevent a disorder's occurrence.

Historically, activities in mental health primary prevention have been called for, criticized, theorized, and abandoned as being beyond existing knowledge and capabilities. Yet, commonsensically, primary prevention seems to be the only viable alternative to mental health services considering the economics of service demand and manpower requirements. By definition, the primary preventive approach to mental health care delivery does not involve illness or dysfunction, and some of the difficulty in effecting programs may involve the contradiction in professional thinking concerning primary prevention. "Mental disorders" are not the issue in primary prevention, but they continue to be the focus of attention in professional psychological thinking.

This is ironic in two senses. First of all, as Ryan (1969) reminded us, throughout history no major human disorder or disease has ever been controlled or eradicated by treating the disordered individuals. Second, the process of psychotherapy, the "treatment" or "amelioration" of psychic "disorder," has for many years most fashionably been conceptualized as an educational process derived from learning theory (Guerney, Stollak, & Guerney, 1971), even though the professional community continues to think in terms of a disease model.

So, from a primary preventive standpoint, the present study adopted an educational approach and was not concerned with who "needs" treatment or new skills but with who wants the new skills. It was not focused on "sickness" but on who wants to learn what, and used an educational format of classroom instruction and voluntary enrollment.

The "whys" of human behavior are elusive and intriguing and have been a central subject of psychology and other professional disciplines since their inception. Humankind's need to explain behavior has been a driving force and has been seen as a necessary condition to the human state of satisfaction in living (London, 1964). The need, from a prevention standpoint, is to explain human behavior and to discover methods to encourage behavior that promotes wholeness and well-being of mind and body, efficient coping. The question then becomes: What is the primary motivational system underlying human behavior? Can this motivational system be impacted on in such a way as to increase the probability of behaviors that promote states of wholeness and well-being?

Emotions have been conceptualized and investigated from diverse directions such as neurophysiology, phenomenology, evolutionary, genetic, and perceptual, and must be seen as a complex <u>systemic</u> phenomenon. This emotion phenomenon is comprised of three different processes: (a) the brain and nervous system; (b) musculature, in observable expressive patterns; and (c) experience or conscious feeling. Emotion, or the affective system, is the primary motivational system in human behavior and is in almost constant interaction with other motivational systems. The most notable interaction occurs with

the cognitive system, which has the most interactive power to define, amplify, or attenuate emotion. The cognitive and emotional systems are amenable to experience and learning and can become more appropriate or efficient in human functioning in a technological society as a result of classroom activities.

The theoretical orientation of the present study, then, can be summarized by nine propositions:

1. Human coping is a complex process of internal cognition and affect, and external behaviors.

2. Both the internal and external components of human coping can become more efficient or appropriate through learning and experience.

3. Optimizing the efficiency or appropriateness of coping behaviors is essential to maintaining wholeness and well-being of mind and body.

4. There are several qualitatively different ways of thinking, and each is important in human coping.

5. Emotion is a highly complex systemic phenomenon involving (a) the brain and nervous system; (b) musculature, in observable expressive patterns; and (c) experience or conscious feeling.

6. The affective system is the primary motivational system in human beings.

7. Cognitive and affective processes maintain a high incidence of interaction and are often functionally inseparable.

8. Affective and cognitive processes and their interactions are amenable to change through learning.

9. Coping is a set of affective and cognitive skills that can be learned within an educational setting.

The present study took an educational approach to behavior change by proposing that individual coping is a term that refers to behaviors. These behaviors are cognitively and affectively motivated and can be evaluated as more-or-less appropriate by an individual. Finally, the present study assumed that affective and cognitive motivations and their resulting behaviors are amenable to change through learning and experience.

CHAPTER III

DESIGN OF THE STUDY

The purpose of this study was to investigate the effects of training health maintenance organization (HMO) subscribers in affective, affective-cognitive, and cognitive coping skills in a classroom setting. Subjects were assessed on two instruments, the Coping Skill Instrument (CSI) and the Medical Service Demand Instrument (MSDI). The design of the study was a pretest-posttest control group design with subjects randomly assigned to the three experimental treatments and the control group. This section gives a step-by-step narrative of the methodology used in this study. It includes a description of the population from which the sample was drawn, how the sample was obtained, and lists the research hypotheses tested. The procedures followed in the study are discussed, the experimental treatments (curriculums) are outlined, and a description of each instrument is given. The chapter is concluded by a description of the research design of the study and a summary of the statistical analyses performed.

Population

The population used in this study consisted of a yearly average of 20,810 paid subscribers, and their dependents, in a pre-paid group health maintenance organization known as Health Central. Health Central's main office and treatment facility is located at

2316 South Cedar, Lansing, Michigan, and serves the residents of Lansing and its suburbs.

The population as a whole utilized services at a mean rate of 4.175 contacts per year for the period of the study, September 4, 1979, to September 4, 1980.

Sample

The sample for this study consisted of 50 volunteers from the subscriber population of Health Central. Approximately two months before the study was to begin, an article advertising Coping With Life Skills Classes, as part of a health education study, was written and included in the monthly newsletter published by Health Central (see Appendix A). This newsletter was mailed to subscribers with instructions to call the Social Service Department of Health Central for further information on the classes, starting dates, etc.

Interested persons, upon calling, were given general information as to class content, activities, etc., by the receptionist (see Appendix B). Persons expressing an interest in participation were told that they would be contacted by telephone and given specific class days and times. Names, telephone numbers, and subscriber numbers of interested individuals were taken by the receptionist.

A total of 81 individuals left information with the receptionist. Six of the individuals were not members of Health Central. They were told that they were welcome to participate in the classes for a nominal fee of $10, but that they could not participate in the study that was being conducted. Approximately three weeks before classes began, a

lottery system was instituted and the 75 remaining subjects were randomly assigned to one of the three treatment (Affective, Affective-Cognitive, Cognitive) groups and a control group. Approximately 19 individuals were assigned to each of the groups. Five individuals were summarily excluded from the study because of interaction effects (e.g., couples).

Participants who had been assigned to one of the three treatment groups were then contacted by telephone and informed of their enrollment in one of the three classes. Participants assigned to a fourth class, which constituted the control group, were contacted and told that they had been assigned to a class that would be meeting at a later time and that, due to the nature of the study, their participation was still highly desired. An appointment was then made to secure medical and information releases (see Appendices C and D) and to schedule posttest times for the control-group individuals. Twelve of the 18 control-group subjects agreed to participate in the study.

During the first class period, the research component of the classes was explained, and medical and information releases were secured. Nine subjects assigned to the three treatment groups refused to participate in the research component of the classes. Five subjects were deleted from the study due to attrition (after first two classes). A total of 38 treatment subjects completed at least five of the classes. Table 3.1 describes the composition of the four groups, a total of 50 subjects.

Table 3.1: Demographic Data for Sample

Variable	T_1	T_2	T_3	T_4
Number	10	13	15	12
Age				
Mean	40.20	37.15	42.48	30.25
Range	32-57	20-59	26-58	25-47
Sex				
Male	2	3	5	2
Female	8	10	10	10
Educational level				
Mean	13.33	13.46	12.46	13.58
Range	12-16	12-16	10-16	12-16

T_1 = Affective treatment group

T_2 = Affective-cognitive treatment group

T_3 = Cognitive treatment group

T_4 = Control group

Procedure

Approximately two months before classes were to begin, an advertisement was placed in the monthly newsletter of Health Central for Coping with Life Skills Classes. Subscribers who responded to the advertisement were assigned to one of four groups on a random basis: Affective (T_1), Affective-Cognitive (T_2), Cognitive (T_3), and Control (T_4) (see Sample section).

The three contact groups, T_1, T_2, and T_3, met for a total of 16 hours over an eight-week period, whereas the control group, T_4, was a no-contact, delayed-treatment group. The three classes began

March 4, 5, and 6, 1980, respectively, and met for two hours per week. A separate instructor was used for each class.

The instructors were two masters-level and one doctoral-level mental health workers. Each instructor had a minimum of three years clinical experience (see Appendix E). The instructors were trained in the presentation of the coping curriculums independently of each other, for approximately six hours, over a two-week period preceding the classes. Each instructor was also provided with a basic, week-by-week narrative of the respective curriculum, which included standardized instructions (see Appendices F, G, and H).

All classes were held at Ingham Medical Professional Building, 405 W. Greenlawn, Lansing, Michigan.

The first activity for each class was an introduction and orientation to the study. Students were told that the classes were part of a study in health education and that, although descriptions of the study may be published, all information would remain anonymous and that their participation would be kept confidential. Participants were asked to sign medical and information release forms and were given an explanation of the posttest they were expected to take after completing the class.

After medical and information releases were secured and classes began, the medical records of the subjects were assessed. Using the Medical Service Demand Instrument (MSDI)(see Appendix I), the frequency of medical contacts by subjects, for three classifications of symptoms, was computed. These frequencies were used to form the pretest

variables: stress-related symptoms (M_1), non-stress-related symptoms (M_2), and total symptoms (M_3).

Classes proceeded through the eight-week curriculum and terminated on April 22, 23, and 24, 1980. During the last class period in each class, a posttest measure on the dependent variable, coping-skill acquisition, using the Coping Skill Instrument (CSI) was taken (see Appendix J). This last class period was unusual in that a large attrition occurred among the three treatment groups. A total of 15 subjects failed to attend the last class meeting and were, therefore, not assessed on the CSI. This occurrence will be explored further in Chapters IV and V.

The posttest computation of the dependent variable, frequency of demand for medical services, was made with the MSDI for the six-month period of March 4 to September 4, 1980, and yielded three posttest variables: frequency of stress-related symptoms (M_4), frequency of non-stress-related symptoms (M_5), and frequency of total symptomatology (M_6).

Subjects in the delayed control class (C) were then offered an eight-week class in coping skills beginning September 18, 1980. A total of 10 subjects participated in the delayed treatment.

Curriculum

Smith, Sarason, and Sarason (1978) defined learning as any change in potential behavior as a result of experience. A curriculum should concern itself with how best to use a given cultural pattern of instruction to provide experiences to reach particular behavioral

goals. Our cultural pattern has been that of grouped instruction by enactive, iconic, and symbolic means.

With these patterns in mind, classroom activities in all experimental groups included group exercises, lectures, discussions, and homework assignments. An effort was made to maintain equivalent activities in all treatment classes.

Affective Curriculum

Basic empathy skills, affective interpersonal skills, provided the foundation for the affective curriculum. The structured skill-building model for training skills in Empathic Understanding, Attitude and Value Clarification, and Decision Making as described by Truax, Carkhuff, and Douds (1964) and Truax and Carkhuff (1967) has become commonplace in short-term training programs. This model has been modified many times for particular purposes (Hinds, James, Gieszer, & Jacobs, 1972; Kagan, 1972) and has been shown to significantly increase trainee interpersonal effectiveness in a variety of settings (see Chapter II). No research was available that investigated the effects of interpersonal skills training on demand for medical services.

Carkhuff and Anthony (1979) recently proposed a refinement of the basic empathy model, which was built on the following four developmental phases of activity:

1. Involvement--appears and expresses personally relevant materials.
2. Exploration--investigates feelings, meanings, situations.

3. Understanding--understands personal frame of reference.

4. Action--defines goal and takes steps to attain.

These developmental phases seem to reflect a conceptual refinement rather than a change in practice. Therefore, the affective curriculum for the present study used the standard empathy training model of Truax and Carkhuff (1967). This model consists of three content units:

Unit I --Empathy
Unit II --Values clarification
Unit III--Problem solving

The material in each unit was presented through lecture, discussion, and exercises to demonstrate practical application of the concepts. (See Appendix F for a narrative of the Affective Curriculum.)

Cognitive Curriculum

The cognitive curriculum used in the present study was based on the theories and clinical applications presented by Bandler and Grinder (1975, 1976) and Cameron-Bandler (1978). No attempt was made to teach either Transformational Grammar or Neurolinguistic Programming theories to the participants in the study. Instead, subjects were instructed, through lecture, discussion, experiential exercises, and homework, in methods of recognizing the nature of their own representational systems. Students were also instructed in methods of adding to their representational systems, and methods of responding to other representational systems.

The Cognitive curriculum consisted of five content units:

Unit I --Representational systems
Unit II --Modes of thinking

Unit III--Well-formed sentences and thoughts
Unit IV --Logical semantic relations
Unit V --New representational systems

(See Appendix G for a narrative of the Cognitive curriculum.)

Affective-Cognitive Curriculum

The Affective-cognitive curriculum was comprised of material from the Affective and the Cognitive curriculums. It consisted of eight content units:

Unit I --Empathy
Unit II --Values clarification
Unit III --Problem solving
Unit IV --Representational systems
Unit V --Modes of thinking
Unit VI --Well-formed sentences and thoughts
Unit VII --Logical semantic relations
Unit VIII--New representational systems

(See Appendix H for a narrative of the Affective-cognitive curriculum.)

Each of the curriculums (treatments) was presented over an eight-week time span. The curriculums included exercises to promote active, distributed rehearsal of the concepts. The exercises also provided an opportunity for each instructor to receive feedback in subject progress. In addition, interactions between the instructors and subjects allowed for the modeling of curriculum-appropriate behaviors.

Instruments

Coping Skill Instrument (CSI)

Unlike earlier attempts to assess coping (Lazarus, 1964, 1965; Moos, 1969), the present study focused on a heterogeneous population and required an instrument whose content could be readily identified with by a wide range of people. Requirements of the study also necessitated an outcome rather than a process assessment of coping since

the dependent variable, frequency of demand for medical services, was hypothesized to be sensitive to outcomes and not strategies of coping behaviors. For these same reasons, coping situations were chosen that reflected developmental rather than catastrophic issues with the general task being, "How can the requirements of the situation be met, as to task completion and opportunities utilized, while maintaining functional continuity with the social environment?"

Three general content areas were chosen that reflected a wide range of coping situations: physical, psychological, and environmental. Each area was represented by two situations:

Physical	--Identifying symptomatology
	Preventive care
Psychological	--Responsibility in behavior
	Relationship
Environmental	--Vocational
	Social

Almost all research involving the observation of responses is limited in one of two ways. First, laboratory responses to stimuli often bear little resemblance to actual social behaviors. Second, naturally occurring eliciting stimuli and responses generally occur so infrequently that data collection becomes impossible. To avoid these limitations, a procedure similar to those developed by Jackson (1966) and Stollak (1973) was used to construct an instrument to assess coping ability. The Coping Skills Instrument (CSI) used in the present study was a projective instrument that confronted the subjects with a series of hypothetical problem situations, asking that they imagine themselves in the situations. The subjects were asked to respond with their thoughts, feelings, and actions to the situations (see

Appendix J). Responses were then rated as either effective or ineffective according to criteria derived from the literature (Gordon, 1974; Haan, 1965; Kuriloff & Rinder, 1975; White, 1959; Whiteley, 1966) (see Appendix K).

Such a projective procedure allowed gathering of data from a large number of subjects quickly and will yeild data that are predictive of actual coping behaviors in naturalistic settings (Jackson, 1966; Stollak, 1973).

CSI Rating

The CSI was rated by a group of three mental health workers who underwent a rigorous training program in identifying effective and ineffective coping responses as defined by the selected criteria. Instruction in rating responses involved didactic presentation of the criteria, concepts underlying the criteria, and question-and-answer sessions to clarify the material. Raters were then given the CSI and asked to formulate three effective and three ineffective responses to one of the simulated problem situations. After these responses were evaluated by the researcher to assure that they exhibited a close correspondence to the defined criteria, each rater was given the CSI's from all of the subjects to rate as either effective or ineffective.

CSI Rater Reliability

Interrater reliability for the CSI was calculated in the following manner. The CSI's from all of the subjects were assessed independently by three raters. The raters were trained to evaluate written responses to six hypothetical problem situations. Using 24

criteria (see Appendix K), raters were instructed to rate each situation as either effective or ineffective. The sum of the effective responses to the six situations was used as the measure of coping skill acquisition for each subject. Means and standard deviations for these scores were calculated, and the average correlation between raters was calculated. The interrater reliability was then estimated using a procedure described by Winer (1971, pp. 223-289). Table 3.2 describes the ratings and reliability estimate.

Table 3.2: CSI Ratings and Reliability Estimate

Rater	Number	Mean	S.D.	Mean Correlation	Reliability Estimate
RA1	35	2.60	1.89		
RA2	35	4.34	1.55		
RA3	35	2.86	1.83		
				.3877	.6551

Medical Service Demand Instrument (MSDI)

No existing instrument was identified that would satisfy the requirements for the dependent measure, frequency of demand for medical services by complaint. The MSDI was developed with the assistance of the medical staff of Health Central in the following manner.

A comprehensive list of 54 subjective complaints was generated with the help of a staff physician. Using standard medical texts,

the following nine anatomical systems were first identified as content areas:

Central Nervous System
Respiratory
Cardiovascular
Gastrointestinal
Genito-urinary
Skin
Bone and Joint
Special Senses
General

Medical records were then randomly chosen and, along with the medical texts, were used to generate symptoms within each of the content areas. This symptom list was then presented to the Family Practice medical staff ($\underline{n}$ = 9). The instructions were to rate each complaint on a five-point Likert-type scale, as to the probability that stress or psychogenic factors play a part in its development (see Appendix L). The ratings for each symptom were then averaged across physicians to yield a mean rating for each symptom. Symptoms that had a mean rating between 5.0 and 3.5 were designated the Related-to-Stress or psychogenic factors (M_1). Symptoms with a mean rating between 2.5 and 1.0 were designated Unrelated-to-Stress or psychogenic factors (M_2). Symptoms whose ratings averaged between 2.5 and 3.5, inclusively, were identified as being insufficiently discriminative to warrant inclusion in either of the groups (M_1) or (M_2) and were used only in calculating the Total frequency of demand for medical services (M_3). Appendix M lists the 54 symptoms, their average rating, and their classification. A total of 25 symptoms were

classified as Related, 5 symptoms were classified as Unrelated, and 24 symptoms were classified as Nondiscriminative.

Three frequencies were calculated with the MSDI:

Frequency of medical symptoms Related to Stress (M_1)
Frequency of medical symptoms Unrelated to Stress (M_2)
Total frequency of medical symptoms (M_3)

MSDI Consistency

The MSDI was presented to Family Practice physicians from three Lansing, Michigan, area hospitals: St. Lawrence (n = 11), Sparrow (n = 10), and Ingham Medical (n = 5). The instructions to these physicians were identical to those given to the physicians who developed the instrument. Physicians were instructed to rate the 54 symptoms of the MSDI on a five point Likert-type scale, as to the probability that stress or psychogenic factors play a part in the symptoms' development. A total of 26 physicians participated in the ratings. Appendix N lists the symptoms, mean ratings, and standard deviations, by physician group. Table 3.3 lists the percentage of agreement between Health Central and community physicians for each of the symptom classifications.

Table 3.3 indicates a considerable rate of agreement between the physician groups and Health Central physicians on symptoms classified as Related to Stress. Varying rates of agreement are shown for the other symptom classifications.

Table 3.3: Percentage Agreement Between Health Central and Community Physicians by Symptom Classification

Symptom Classification	R	U	N
Community physicians	84%	73%	63%

Note: R = Related to Stress
U = Unrelated to Stress
N = Nondiscriminative

Research Design

The experimental design was a randomized pretest-posttest control group design:

$$R\ O_1\ X\ O_2$$
$$R\ O_3\ X\ O_4$$
$$R\ O_5\ X\ O_6$$
$$R\ O_7\ X\ O_8$$

which is a true experimental design (Campbell & Stanley, 1963). Three treatment factors were used in the design, and subjects were randomly assigned to the different experimental and control groups. Figure 3.1 illustrates the independent and dependent variables in the present study.

Experimental Treatments

Three experimental treatments were examined in the present study: the effects of Affective (T_1), Affective-cognitive (T_2), and Cognitive (T_3) skill training curriculums on the dependent variables, acquisition of coping skills (C_1) and frequency of demand for medical services

Group	PRETEST	POSTTEST	
	Medical Demand	Coping Skills	Medical Demand
T_1 $R_1 \ldots R_n$	M_1 M_2 M_3	C_1	M_4 M_5 M_6
T_2 $R_1 \ldots R_n$	M_1 M_2 M_3	C_1	M_4 M_5 M_6
T_3 $R_1 \ldots R_n$	M_1 M_2 M_3	C_1	M_4 M_5 M_6
C $R_1 \ldots R_n$	M_1 M_2 M_3	C_1	M_4 M_5 M_6

Note: T_1 = Affective curriculum

T_2 = Affective-cognitive curriculum

T_3 = Cognitive curriculum

M_1 = Stress-related demand for medical services, pretest

M_2 = Stress-unrelated demand for medical services, pretest

M_3 = Total demand for medical services, pretest

C_1 = Coping skill level

M_4 = Stress-related demand for medical services, posttest

M_5 = Stress-unrelated demand for medical services, posttest

M_6 = Total demand for medical services, posttest

Figure 3.1: Independent and dependent variables in the present study.

(M_1, M_2, and M_3). The theoretical basis for these treatment models is presented in Chapter 2. A description of the method in which the treatments were presented is contained in Appendices F, G, and H.

Validity Concerns

The true experimental nature of the present study controlled for all possible sources of internal invalidity (history, instrumentation, maturation, testing, regression, interaction of selection and maturation, selection, mortality) by using random assignment of subjects to the experimental conditions (Campbell & Stanley, 1963, p. 5). This procedure greatly increases the confidence that any observed difference between the experimental groups, and the experimental and control groups, can be attributed to the effects of the treatment.

An issue of great importance in the present study concerned the possible factors jeopardizing external validity, generalizability, particularly the interaction effects between selection biases and experimental variables. The concern centered on the fact that the subjects involved in this study were those individuals who voluntarily registered for classes and who further agreed to participate in the research aspects of the educational presentation. Thus, the sample was two steps removed from a true representative sample of subscribers to Health Central. Certain factors that are outside the range of the present study can be assumed to be motivating factors for participation, and the results can therefore be appropriately generalized to that subpopulation of persons subscribed to Health

Central who seek educational experiences in coping skills. These assumed motivating factors, however, remain consistent with the theoretical orientation of the present study. When using an educational approach rather than a psychopathological model, volunteerism becomes appropriate; the population of interest is who "wants" to learn the skill, not who "needs" to learn it.

The second factor jeopardizing the external validity of the dependent variable, coping-skill acquisition, was the possibility of reactive or interactive effects of testing. A pretest on the CSI might increase the student's sensitivity or receptivity to the experimental variable, curriculum, thereby making the posttest assessment unrepresentative of the unpretested population. To control for this source of invalidity, only a posttest was administered to the subjects on the dependent variable of coping-skill acquisition. As Campbell and Stanley (1963) pointed out, "It is difficult to give up 'knowing for sure' that the experimental and control groups were 'equal' before the differential experimental treatment. Nonetheless, the most adequate all-purpose assurance of lack of initial biases between groups is randomization" (p. 25).

The third factor jeopardizing external validity concerned the use of three different individuals to administer the three treatments. No single individual was identified who could satisfy the time and content requirements of the three treatments. The instructors for each treatment were chosen because they each possessed training and experience in the content area they were assigned to.

Still, the generalizability of the study was seriously compromised since the treatment variable was confounded by extraneous treatment factors. These validity concerns will be discussed more fully in Chapter V.

Hypotheses

The primary questions of interest in this study were:

1. Can an educational approach to primary prevention improve the general physical health of members of an HMO as measured by the frequency of demand for medical services?

2. Within such an educational approach, will a curriculum comprised of both affective and cognitive instruction prove to be superior to curriculums in either affective or cognitive instruction in reducing the demand for medical services?

3. Within such an educational approach, will a curriculum comprised of both affective and cognitive instruction prove to be superior to curriculums in either affective or cognitive instruction on the acquisition of coping skills?

The following hypotheses were tested to answer the primary questions of interest.

I. H_o: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will not demonstrate a significant difference in coping skills compared to subjects assigned to the Control group.

H_a: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will demonstrate a significant increase in coping skills compared to subjects assigned to the Control group.

II. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant difference in coping skills compared to subjects assigned to the Affective treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant increase in coping skills compared to subjects assigned to the Affective treatment group.

III. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant difference in coping skills compared to subjects assigned to the Cognitive treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant increase in coping skills compared to subjects assigned to the Cognitive treatment group.

IV. H_o: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will not demonstrate a significant decrease in Stress-Related symptoms compared to subjects assigned to the Control group.

H_a: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will demonstrate a significant decrease in Stress-Related symptoms compared to subjects assigned to the Control group.

V. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant decrease in Stress-Related symptoms compared to subjects assigned to the Affective treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant decrease in Stress-Related symptoms compared to subjects assigned to the Affective treatment group.

VI. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant decrease in Stress-Related symptoms compared to subjects assigned to the Cognitive treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant decrease in Stress-Related symptoms compared to subjects assigned to the Cognitive treatment group.

VII. H_o: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will not demonstrate a significant decrease in Non-Stress-Related symptoms compared to subjects assigned to the Control group.

H_a: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will demonstrate a significant decrease in Non-Stress-Related symptoms compared to subjects assigned to the Control group.

VIII. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant decrease in Non-Stress-Related symptoms compared to subjects assigned to the Affective treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant decrease in Non-Stress-Related symptoms compared to subjects assigned to the Affective treatment group.

IX. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant decrease in Non-Stress-Related symptoms compared to subjects assigned to the Cognitive treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant decrease in Non-Stress-Related symptoms compared to subjects assigned to the Cognitive treatment group.

X. H_o: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will not demonstrate a significant decrease in Total symptoms compared to subjects assigned to the Control group.

H_a: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will demonstrate a significant decrease in Total symptoms compared to subjects assigned to the Control group.

XI. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant decrease in Total symptoms compared to subjects assigned to the Affective treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant decrease in Total symptoms compared to subjects assigned to the Affective treatment group.

XII. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant decrease in Total symptoms compared to subjects assigned to the Cognitive treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant decrease in Total symptoms compared to subjects assigned to the Cognitive treatment group.

Analysis of Data

The main purpose of this study was to evaluate several educational approaches to mental health services. Two dependent variables were involved, frequency of demand for medical services and coping-skill ability. The two instruments developed to assess the dependent variables have been presented in a previous section. The following analyses were used to test the hypotheses related to demand for medical services and coping-skill ability.

An analysis of covariance was performed on the mean ratings on the CSI. Age, educational level, and medical symptomatology pretest were used as covariates. The .05 level of significance was established as the critical level for accepting or rejecting group differences.

An analysis of covariance was performed on the posttest scores of the MSDI. Age, educational level, and medical symptomatology pretest were used as covariates. The level of significance was set at $\alpha = .05$. The Scheffé method of multiple comparison was then performed to test the significance of differences between specific groups according to the stated hypotheses.

Summary

The 50 subjects in this study were volunteers for an educational presentation in coping skills. They were subscribers in a comprehensive medical service delivery organization (HMO) called Health Central, which serves the residents of Lansing, Michigan, and its suburbs. Volunteers for the classes were further requested to take part in a study in health education. Volunteers were randomly assigned to three treatment groups (Affective, Affective-cognitive, and Cognitive) and a Control group. The three treatment groups met for a total of 16 hours over an eight-week period. The Control group was a no-contact group.

Using the MSDI, medical contacts for all volunteers were assessed for the six-month period preceding the classes. Three pretest variables were formed: stress-related symptoms (M_1), non-stress-related symptoms (M_2), and total symptoms (M_3). After completion of the eight classes, medical contacts for the subsequent six-month period were assessed for all volunteers. This assessment formed the three posttest variables, M_4, M_5, and M_6. During the last class period for each class, the CSI was administered as a final "examination." Assessment of the control group followed the same procedure, with the CSI administered on approximately the same date as the treatment groups.

An analysis of covariance was performed on the mean ratings on the CSI. An analysis of covariance was performed on the posttest scores of the MSDI, followed by the Scheffé method of multiple comparisons.

The results of the hypotheses tests and an interpretation of these results are presented in Chapter IV.

CHAPTER IV

ANALYSIS AND RESULTS

This chapter is composed of three sections. In the first section the statistical treatment of the data is explained. In the next section the hypotheses are evaluated according to the results of the analyses. Finally, the chapter is concluded by a summary of the hypotheses tests.

Analyses

The design for this study (Figure 3.1) was a pretest-posttest control group design. This design was used to compare the effects of three educational treatments in coping skills on three experimental groups and a control group. Four dependent measures were used: coping-skill acquisition (C_1), frequency of stress-related symptoms (M_4), frequency of non-stress-related symptoms (M_5), and total frequency of symptoms (M_6). Descriptions of each of the dependent variables are included in Chapter III.

As shown in Table 3.1, the random assignment of subjects to the three treatment groups and one control group resulted in differences between groups in the age and educational level of subjects. This occurrence will be discussed more fully in Chapter V. For the purposes of analyses, age, educational level, and medical symptomatology

pretest variables were chosen as covariates. Analyses of covariance[1] were performed to test for treatment effects on each of the dependent measures. The level of significance was set at $\alpha = .05$.

Results

In this section, the hypotheses are evaluated according to the results of the analyses. The data for the dependent measure, coping-skill acquisition, C_1, are summarized in Table 4.1.

Table 4.1: Means and Standard Deviations, Coping-Skill Acquisition

Group	N	Mean	S.D.
T_1	8	3.63	1.10
T_2	5	2.13	1.50
T_3	10	3.27	1.45
T_4	12	3.50	1.29

T_1 = Affective
T_2 = Affective-cognitive
T_3 = Cognitive
T_4 = Control

Table 4.1 reports the means and standard deviations of the number of hypothetical problem situations of the CSI, out of a total of six, which were rated as effective.

The data for the measures, frequency of medical symptomatology, M_1 to M_6, are summarized in Table 4.2.

---

[1] SPSS: Statistical Package for the Social Sciences, 2nd ed. (1975).

Table 4.2: Means and Standard Deviations, Frequency of Medical Symptomatology

Group	N	Stress-Related M_1, M_4		Non-Stress-Related M_2, M_5		Total Symptoms M_3, M_6	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
Pretest							
T_1	10	1.10	1.45	0.00	0.00	1.90	1.73
T_2	13	1.92	2.18	0.00	0.00	3.15	2.54
T_3	15	2.40	2.59	0.13	0.52	3.20	2.96
T_4	12	1.67	1.83	0.00	0.00	3.08	2.19
Posttest							
T_1	10	1.20	1.14	0.20	0.63	1.70	1.49
T_2	13	1.00	1.00	0.00	0.00	1.85	1.99
T_3	15	1.00	1.46	0.07	0.26	1.33	1.76
T_4	12	2.17	3.33	0.00	0.00	3.08	3.20

T_1 = Affective
T_2 = Affective-cognitive
T_3 = Cognitive
T_4 = Control

Table 4.2 reports the means and standard deviations of the three symptom classifications of the MSDI. These frequencies were computed from the subject's medical records.

Variable M_5, frequency of non-stress-related symptoms, did not yield sufficient data for meaningful analysis and was consequently eliminated from further analysis. The 50 subjects who participated in the study reported only three non-stress-related symptoms during the data-acquisition period.

Tables 4.1 and 4.2 illustrate a large discrepancy between cell frequencies in the three treatment groups. As stated in Chapter III (see Sample section), five subjects were lost through attrition over the first two weeks of treatment. Table 4.2 provides cell frequencies after this initial attrition. Attendance then stabilized within the three treatment groups until the eighth and final session. At that time, 15 subjects failed to attend the eighth session and take the final examination (C_1). Treatment group T_1 lost two subjects, T_2 lost eight subjects, and T_3 lost five subjects. This large mortality rate will be discussed in Chapter V.

Analysis of Hypotheses

The first three hypotheses were concerned with the acquisition of coping skills.

I. H_o: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will not demonstrate a significant difference in coping skills compared to subjects assigned to the Control group.

H_a: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will demonstrate a significant increase in coping skills compared to subjects assigned to the Control group.

II. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant difference in coping skills compared to subjects assigned to the Affective treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant increase in coping skills compared to subjects assigned to the Affective treatment group.

III. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant difference in coping skills compared to subjects assigned to the Cognitive treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant increase in coping skills compared to subjects assigned to the Cognitive treatment group.

An analysis of covariance was performed on the dependent measure, coping-skill acquisition, C_1. Age, educational level, and symptomatology pretest, M_1, were used as covariates.

Table 4.3: Analysis of Covariance, Coping-Skill Acquisition

Source	Adj. SS	df	Adj. MS	F	p
Main effects	3.62	3	1.21	0.74	0.54
Error	45.53	28	1.63		

As shown in Table 4.3, no significant differences were found at the .05 level between adjusted group means on coping-skill acquisition.

Hypothesis I was designed to test for differences between the treatment and control groups on coping-skill acquisition. Hypothesis II

was designed to test for differences between the Affective-cognitive and Affective treatment groups on coping-skill acquisition. Hypothesis III was designed to test for differences between the Affective-cognitive and Cognitive treatment groups on coping-skill acquisition. Since the analysis of covariance was found to yield nonsignificant results, the three null hypotheses may not be rejected.

The next nine hypotheses were concerned with the frequency of medical symptomatology. Hypotheses IV, V, and VI focused on the frequency of stress-related symptoms.

IV. H_o: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will not demonstrate a significant decrease in Stress-Related symptoms compared to subjects assigned to the Control group.

H_a: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will demonstrate a significant decrease in Stress-Related symptoms compared to subjects assigned to the Control group.

An analysis of covariance was performed on M_4, frequency of stress-related symptoms, with age, educational level, and pretest, M_1, as covariates. Table 4.4 shows the results of the analysis.

Table 4.4: Analysis of Covariance, Stress-Related Symptoms

Source	Adj. SS	df	Adj. MS	F	p
Main effects	26.31	3	8.77	3.26	0.03
Error	115.77	43	2.69		

Adjusted group mean scores for the four groups were significantly different at the .05 level. This finding indicates that significant differences existed between groups on the frequency of stress-related symptoms.

Scheffé post-hoc comparisons were performed to determine the source of the group differences on M_4. The first comparison, between treatment groups, T_1, T_2, and T_3, and the control group, T_4, yielded an F-value of 8.32, which was significant at the .05 level. This finding indicates that significant differences existed between the treatment and control groups on the frequency of stress-related symptoms.

Hypothesis IV was designed to test for differences between the treatment and control groups on the frequency of stress-related symptoms, M_4. The null hypothesis of no differences was therefore rejected in favor of the alternative hypothesis. Subjects assigned to the treatment groups showed a significant decrease in stress-related symptoms compared to subjects assigned to the control group.

V. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant decrease in Stress-Related symptoms compared to subjects assigned to the Affective treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant decrease in Stress-Related symptoms compared to subjects assigned to the Affective treatment group.

The second comparison of interest was between the Affective-cognitive treatment group, T_2, and the Affective treatment group, T_1. This comparison yielded an F-value of 0.2218, which was not significant at the .05 level.

Hypothesis V was designed to test for differences between the Affective-cognitive and the Affective treatment groups. Since the Scheffé comparisons yielded a nonsignificant result, the null hypothesis of no differences may not be rejected.

VI. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant decrease in Stress-Related symptoms compared to subjects assigned to the Cognitive treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant decrease in Stress-Related symptoms compared to subjects assigned to the Cognitive treatment group.

The last comparison of interest was between the Affective-cognitive treatment group, T_2, and the Cognitive treatment group, T_3. This comparison yielded an F-value of 0.05, which was not significant at the .05 level.

Hypothesis VI was designed to test for differences between the Affective-cognitive and the Cognitive treatment groups. Since the Scheffé comparison yielded a nonsignificant result, the null hypothesis of no differences may not be rejected. No other comparison yielded significant results at the .05 level.

Hypotheses VII, VIII, and IX focused on the frequency of non-stress-related symptoms.

VII. H_o: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will not demonstrate a significant decrease in Non-Stress-Related symptoms compared to subjects assigned to the Control group.

H_a: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will demonstrate a significant decrease in Non-Stress-Related symptoms compared to subjects assigned to the Control group.

VIII. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant decrease in Non-Stress-Related symptoms compared to subjects assigned to the Affective treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant decrease in Non-Stress-Related symptoms compared to subjects assigned to the Affective treatment group.

IX. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant decrease in Non-Stress-Related symptoms compared to subjects assigned to the Cognitive treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant decrease in Non-Stress-Related symptoms compared to subjects assigned to the Cognitive treatment group.

Hypotheses VII, VIII, and IX were designed to test for differences between the treatment and control groups and between the three treatment groups on the frequency of non-stress-related symptoms, M_5. Since this variable was eliminated from analysis due to insufficient data, the null hypotheses of no differences may not be rejected.

Hypotheses X, XI, and XII focused on the frequency of total symptomatology.

X. H_o: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will not demonstrate a significant decrease in Total symptoms compared to subjects assigned to the Control group.

H_a: Subjects assigned to the Affective, Affective-cognitive, and Cognitive treatment groups will demonstrate a significant decrease in Total symptoms compared to subjects assigned to the Control group.

XI. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant decrease in Total symptoms compared to subjects assigned to the Affective treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant decrease in Total symptoms compared to subjects assigned to the Affective treatment group.

XII. H_o: Subjects assigned to the Affective-cognitive treatment group will not demonstrate a significant decrease in Total symptoms compared to subjects assigned to the Cognitive treatment group.

H_a: Subjects assigned to the Affective-cognitive treatment group will demonstrate a significant decrease in Total symptoms compared to subjects assigned to the Cognitive treatment group.

An analysis of covariance was then performed on M_6, frequency of total symptomatology, with age, educational level, and pretest as covariates. Table 4.5 shows the results of the analysis. Adjusted group mean scores were not significantly different at the .05 level.

Table 4.5: Analysis of Covariance, Total Frequency of Symptoms

Source	Adj. SS	df	Adj. MS	F	p
Main effects	25.30	3	8.44	2.41	0.08
Error	150.26	43	3.49		

Hypotheses X, XI, and XII were designed to test for differences between the treatment and control groups and between the three treatment groups on the total frequency of medical symptoms, M_6. Since the analysis of covariance yielded a nonsignificant result, the null hypotheses of no differences may not be rejected.

Summary

Twelve hypotheses were tested to examine the effects of treatment on coping-skill acquisition and frequency of medical symptomatology. An analysis of covariance and Scheffé post-hoc comparisons were used to test for treatment differences.

The following is a summary of the results of the hypotheses tests:

1. Hypotheses I, II, and III predicted differences between the treatment and control groups, and between the treatment groups, on coping-skill acquisition, C_1. The null hypotheses were not rejected at the .05 level of significance.

2. Hypothesis IV predicted differences between the treatment and control groups on the frequency of stress-related symptoms. The Scheffé post-hoc comparison yielded a significant difference at the .05 level. The null hypothesis of no differences was therefore rejected in favor of the alternative hypothesis, indicating that subjects assigned to the three treatment groups demonstrated a significant decrease in stress-related symptoms compared to subjects assigned to the control group.

3. Hypotheses V and VI predicted differences between the three treatment groups on frequency of stress-related symptoms, M_4. Scheffé post-hoc comparisons yielded nonsignificant differences for both at the .05 level. The null hypotheses of no differences were not rejected.

4. Hypotheses VII, VIII, and IX were designed to test for differences between the treatment and control groups, and between the

treatment groups, on frequency of non-stress-related symptoms, M_5. Since this variable was eliminated from analysis due to insufficient data, the null hypotheses of no differences were not rejected.

5. Hypotheses X, XI, and XII were designed to test for differences between the treatment and control groups, and between the treatment groups, on total frequency of medical symptoms, M_6. Since the analysis of covariance yielded nonsignificant results, the null hypotheses of no differences were not rejected.

In Chapter V a summary of the study is presented. Conclusions are drawn based on the results of the analyses. Finally, the limitations of the study are discussed and implications for future research are proposed.

CHAPTER V

SUMMARY AND CONCLUSIONS

The major purpose of this study was to assess the effects of three educational treatments on coping-skill acquisition and frequency of medical symptomatology. In this chapter, a summary of the study is presented. Next a discussion of the study is offered and conclusions based on the results of the analysis of the data are drawn. Finally, limitations of the study and implications for future research in primary prevention are discussed.

Summary

The purpose of this study was to evaluate three educational approaches to preventive mental health services within an HMO. Three related areas of the literature were reviewed in the current study: theories and studies on human coping and adaptation, human cognitive activities, and human emotions. Nine propositions were derived from this review to summarize the theoretical orientation of the study.

1. Human coping is a complex process of internal cognition and affect, and external behaviors.

2. Both the internal and external components of coping can become more efficient and appropriate through learning and experience.

3. Optimizing the efficiency or appropriateness of coping behavior is essential to maintaining wholeness and well-being of mind and body.

4. There are several qualitatively different ways of thinking, and each is important in human coping.

5. Emotion is a highly complex systemic phenomenon involving (a) the brain and nervous system, (b) musculature and observable expressive patterns, and (c) experience and conscious feelings.

6. The affective system is the primary motivational system in human beings.

7. Cognitive and affective processes maintain a high incidence of interaction and are often functionally inseparable.

8. Affective and cognitive processes and their interactions are amenable to change through learning.

9. Coping is a set of affective and cognitive skills that can be learned within an educational setting.

A total of 50 volunteers from the subscriber population of Health Central, a health maintenance organization, participated in this study. The study was designed to assess the behavioral effects of training an HMO population in coping skills. Classes in affective, affective-cognitive, and cognitive coping skills were given to volunteers in an effort to assess the individual and relative contributions of each type of treatment to the general coping ability and to the physical well-being of the participants.

Two instruments were developed to assess the effects of the training. The Coping Skill Instrument (CSI) was a projective instrument which confronted the subjects with a series of hypothetical problem situations, asking that they imagine themselves in the situation. The subjects were asked to respond, in writing, with their

thoughts, feelings, and actions to the situations. Responses were then rated as either effective or ineffective. The total number of effective responses was used to form the dependent variable, coping-skill acquisition. Rater reliability for the CSI was estimated at 0.655.

The Medical Service Demand Instrument (MSDI) was a method of symptom classification which was developed with the help of physicians from Health Central and three Lansing, Michigan, area hospitals. The physicians were asked to rate a list of 54 symptoms on a five-point Likert-type scale, as to the probability that stress or psychogenic factors play a part in the symptom's development. Average symptom ratings from Health Central physicians were used to construct the nominal scale.

The MSDI classified 54 symptoms according to their etiological relationship to stress and psychogenic factors. Three symptom classes were formed: stress-related symptoms, non-stress-related symptoms, and insufficiently discriminative symptoms. This last class of symptoms was used, with the addition of stress-related and non-stress-related symptoms, to compute the total frequency of symptomatology.

The frequency of each presenting symptom, by classification, was computed from the subject's medical records forming the three dependent variables, frequency of stress-related symptoms, frequency of non-stress-related symptoms, and frequency of total symptomatology.

Physicians from three local hospitals rated the symptom list in the same manner as the Health Central physicians. These ratings provided an estimate of consistency of thought between physician groups

in the area. Ratings between physician groups and Health Central physicians ranged in percentage agreement from 63 to 84% for the three symptom classifications.

A pretest-posttest control group design was used to test the hypotheses. Coping-skill ability and frequency of symptoms, by classification, were the dependent variables. Summary data were generated for each of the dependent variables and for the pretest variables, frequency of medical symptomatology, by classification. Variable M_5, frequency of non-stress-related symptoms, was eliminated from further analysis due to insufficient data. An analysis of covariance using frequency of stress-related symptoms, pretest, age, and educational level as covariates, was performed on the dependent variable, coping-skill acquisition. No significant differences between groups were found at the .05 level of significance.

An analysis of covariance was performed on the dependent variables, frequency of stress-related symptoms and frequency of total symptomatology, with age, educational level, and medical symptomatology pretest as covariates. Adjusted group mean scores for the four groups were significantly different at the .05 level on the dependent variable, frequency of stress-related symptoms. Adjusted group mean scores were not significantly different at the .05 level of significance on the dependent variable, frequency of total symptomatology. Scheffé post-hoc comparisons were performed on the dependent variable, frequency of stress-related symptoms, to determine the source of the group differences. The only comparison of interest which produced a significant F-value was between the treatment and control groups.

A summary of the results of the hypotheses tests is presented below:

1. Significant differences were found between the treatment and control groups on the frequency of stress-related symptoms.

2. No significant differences were found between the treatment and control groups on coping-skill acquisition, on frequency of non-stress-related symptoms, or on frequency of total symptomatology.

3. No significant differences were found between the treatment groups on any dependent variable.

Conclusions

This study demonstrated that it is possible to provide effective primary preventive services as part of a mental health service delivery system within an HMO. Subjects assigned to the three treatment groups demonstrated a significant decrease in the frequency of stress-related symptoms compared to subjects assigned to the control group. This result illustrates again the error in contrasting and separating the mental and physical realms (Schofield, 1969). It also adds support to the proposition that the human physiological system can be impacted on in a broad, general manner through training and education. Although the interactive relationship of the two realms, mental and physical, has been well documented, the literature on this relationship has generally been confined to highly specific, well-defined physiological abnormalities (Costell & Leiderman, 1968; Jenkins, 1971; Malmo, Boag, & Smith, 1957; Mason, 1959; Nowlin, Eisdorfer, Bogdonoff, & Nichols, 1968; Van Heijningen & Truerniet, 1966;

Williams, Kimball, & Williard, 1972). The present study serves to broaden this interactive understanding by demonstrating the efficacy of mental health education over a wide range of physiological complaints, supporting the argument for the integration of mental health education in preventive medicine (Dalzell-Ward, 1976; Swisher, 1976; Coleman & Patrick, 1976).

The frequency of non-stress-related symptoms reported by the subjects was not decreased between the treatment and control groups, but this result is logically consistent. There is little reason to believe that treatments designed to promote more efficient adaptation and lower stress levels will result in a decrease in the frequency of physical symptoms unrelated to these factors. The results of this study present a more rational view of the effects of these treatments on physical symptomatology.

The frequency of total symptomatology reported by the subjects was not significantly decreased between the treatment and control groups. The analysis of the data was hampered by the excessive amount of variance present within the sample (see Table 4.2). This large amount of variance served to mask any treatment differences, making significant findings even more difficult to discover.

No significant differences between treatment and control group subjects were found on the dependent measure, coping-skill acquisition. This finding is inconsistent since the frequency of stress-related symptoms in the treatment subjects was significantly reduced. This reduction in frequency of physical symptoms should be a reflection of an increase in efficiency in coping and adaptive behaviors

(Goldstein & Adams, 1967; Hinkle & Wolff, 1957; Martin, 1964). This increase, however, was not demonstrated. The lack of a valid assessment of coping-skill acquisition may explain this discrepancy and will be discussed in the next section.

No significant differences between the treatment groups were found on any of the dependent variables, coping-skill acquisition or frequency of medical symptomatology. Therefore, the assertion that the affective system is the primary motivational system, that this system maintains a high incidence of interaction with the cognitive system, and that a curriculum composed of both cognitive and affective content would be superior to curriculum in either, individually, was unsupported. Although intuitively attractive, this proposition was not substantiated, and perhaps should not have been. The issue, in retrospect, becomes very complex and unclear and can be argued from two opposing perspectives.

First of all, if it is true that the affective system is the primary motivational system in human behavior (Tomkins, 1965; Izard, 1977), and that this system has a high incidence of interaction and may be functionally inseparable from, and perhaps even determined by, the cognitive system (Leeper, 1963; Schachter & Singer, 1962), it follows that a curriculum composed of both affective and cognitive content would be most effective in stimulating more efficient coping behaviors. On the other hand, if the affective and cognitive systems are, in fact, functionally inseparable, it may be safe to assume that the three treatment curriculums used in this study stimulated the same motivational system.

Due to methodological limitations of the study, which will be discussed in the next section, comparisons to discriminate between treatments cannot be considered valid and no conclusions can be drawn from the results.

The results of this study can also be used to generate inferences about primary preventive services within an HMO. Eighty-one individuals responded to the opportunity to gain new skills in coping. This response indicates that educational preventive services are desired by some members of an HMO, and that subscribers to such a health delivery system can profit from receiving such a service. The results also illustrate the efficacy of primary prevention services in the mental health field. Contrary to the popular notion that primary prevention cannot easily be assessed (Gruenberg, 1953; Vayda & Perlmutter, 1977), this study showed that such services can be substantiated and are effective. Perhaps nowhere in the field is the need for primary prevention more apparent than within the HMO health service delivery system. The HMO is a system which depends on holistic efforts on all three levels of prevention to promote the well-being of its members.

Limitations of the Study

Methodology

In general, the methodology and design of this study were weakened by factors which often impede applied research: adequate control of extraneous variables.

Subjects in this study were volunteers who agreed to take part in an educational presentation in coping skills. Thus, volunteerism introduced a selection bias into the sampling procedure. This sampling bias was magnified by a second voluntary agreement, participation in a research study. The subject sample, then, was two steps removed from a true representative sample of the population of subscribers.

As stated earlier (see Chapter III), volunteerism was considered to be consistent with the primary preventive orientation of the present study. Educational experiences which are a part of primary prevention services rely on individuals who desire the experiences and skills. Volunteerism, however, presents a serious statistical threat to internal and external validity. Technically, volunteerism reduces the generalizability to that subpopulation which volunteers to participate in an educational presentation on coping skills, and who further agrees to be research subjects. Volunteerism also violates the requirements of a true experimental design (Campbell & Stanley, 1963) and therefore renders any causal inferences tenuous at best.

The sample was also biased in terms of the control group. Subjects who agreed to participate as control group members, in effect, self-selected in terms of the delayed treatment offered. Those subjects who chose to participate in the control group were aware that they would have to wait for the educational experience. It can be reasonably assumed that these individuals possessed certain characteristics and skills which made the delay acceptable, thus distinguishing them in unknown ways from the treatment subjects.

Steps were taken to control for sources of selection invalidity through random assignment and deletion of the interacting subjects (e.g., couples). Still, the summary data describing the sample (see Table 3.1) show differences between the four groups on two demographic variables, age and educational level. An analysis of covariance was chosen using two covariates, age and educational level, to attempt to control for initial differences between groups. A third covariate, pretest on frequency of medical symptomatology, was included to increase the power of the analyses.

The second methodological issue which must be addressed is the large mortality rate which occurred on the final week of classes. A total of 15 subjects in the three treatments did not attend the last class and were, therefore, not assessed on the Coping Skill Instrument (CSI). This attrition presents serious problems in internal validity on the dependent variable, coping-skill acquisition.

Two factors have been identified which may account for the observed mortality rate. First of all, the treatment subjects were all informed that the last period in each class would be composed of a review and a final examination on coping skills (posttest measure, CSI). Individuals who had made a conscientious effort to attend evening classes suddenly were offered no new information on coping skills. Instead, they were asked to spend personal time being evaluated on their level of coping-skill acquisition. A combination, then, of test anxiety and lack of reinforcer could account for the high attrition during the last class period.

The instructor variable may also have been a factor in the mortality rate. Three different instructors were used to present the three treatments. This confounding of the treatment variable will be discussed in the next section, but it may also have played an important role in the differential rate of attrition between the treatment groups. Each instructor possessed his own set of personality characteristics which, among other things, may be presumed to have acted as a motivating factor on the subjects. Since the attrition rate on the last class period shows substantial variations between classes (affective--20%, affective-cognitive--62%, cognitive--33%), it may be safe to assume that, along with test anxiety and the lack of reinforcement, the differential attrition rate was influenced by personal characteristics of the instructors.

The third methodological issue which must be addressed is the use of separate instructors. As stated earlier (see Chapter III), no single instructor was identified who could meet the time and content requirements of the three treatments. Consequently, three individuals were chosen who possessed specific training and skills in the content areas (see Appendix E).

This confounding of the treatment variable prohibits any comparisons between treatments. Even if differences between treatments had been found, the use of separate instructors to administer the three treatments introduced extraneous variables which confounded the treatment variables, making any comparisons of the treatment variables meaningless. This confounding, however, may also be interpreted

in the opposite direction; the extraneous instructor variables may have masked actual treatment effects.

Instruments

The Coping Skill Instrument (CSI) was a projective instrument which confronted the subjects with six hypothetical problem situations. The subjects were instructed to imagine themselves in each situation and to respond in writing with their thoughts, feelings, and behaviors.

This projective assessment technique afforded the researcher an opportunity to evaluate responses to standardized eliciting stimuli and had been used successfully in the past (Jackson, 1956; Stollak, 1974). The results for the present study, however, were disappointing. The reliability estimate of 0.655 accounts for only about 43% of the observed variance. Results based on a correlation this low can be expected to be frequently inaccurate. This instrument, then, cannot be considered a valid or reliable measure of coping ability.

The Medical Service Demand Instrument (MSDI) was a classificatory procedure which was used to compute the frequency of medical symptoms presented for treatment. The MSDI was used to assess the subjects' medical records, classifying symptoms as stress related, non-stresss related, and insufficiently discriminative and used only to compute total frequency. The utility of the MSDI in the present study was encouraging. The instrument illustrated a surprising consistency of thought between family-practice physicians in four different institutions in the Lansing area. It also provided a means of obtaining a behavioral measure of overall physical health.

More importantly, the MDSI seems to be a valid symptom-classification system. The general theoretical expectation of the study was that more efficient coping would result in decreased levels of tension within the organism. Likewise, this decrease in systemic tension would result in a concomitant decrease in the incidence of physical symptomatology. It was unreasonable, however, to expect a decrease in the frequency of symptoms whose etiology did not include stress factors. The accuracy of the MSDI classification system was given some measure of confirmation by the results of the study. Even though decreases in frequency were predicted for all three symptom classifications, only symptoms rated as stress related showed significant decreases between the treatment and control groups. The instrument, in essence, identified frequency differences which were more logically consistent than the stated research hypotheses.

Implications for Future Research

The results of this study begin to document the feasibility of practical, primary prevention efforts in mental health and health education. Much more research in the area is needed.

Within the theoretical approach of this study, questions remain to be answered by further research. It is not yet clear which specific factors have an influence on effective coping-ability acquisition. Further study is needed to develop and refine curriculums whose content clearly stimulates the motivational systems involved in effective coping behaviors. Future studies might use a common instructor and involve comparisons within both the cognitive and affective curriculums to more closely specify effective curriculum content. A contact

comparison group could also be used to control for the effects of personal contact and to help isolate effective curriculum variables.

Development of even more effective curriculums in coping skills is, to a large extent, dependent upon the availability of assessment techniques to measure the level of coping-skill ability of subjects. Future research could explore the use of existing coping scales and further the development of behavioral measures of coping-skill ability for a heterogeneous population.

Using the frequency of medical symptomatology to estimate the overall well-being of individuals is an excellent procedure. Additional studies to refine the Medical Service Demand Instrument are needed, however, to expand the 54 symptoms to include injuries and allergies and to delete certain symptoms which are actually diagnoses (e.g., stroke). Several different applications of the MSDI have been proposed by the medical treatment staff within Health Central and other area practitioners. One of the most promising applications seems to be as a baseline measure in outcome studies in the assurance of quality medical care.

Finally, in light of the results of the present study, efforts might be made to assess the efficacy of integrating material from the affective and cognitive curriculums into existing health education programs. Such an inclusion could prove valuable in stimulating compliance to medical treatment and prevention plans.

APPENDICES

APPENDIX A

HEALTH CENTRAL "HEALTHLETTER"

APPENDIX A

HC Healthletter

HEALTH CENTRAL Volume 4 Number 1 January 1980

Prior Written Approval Necessary

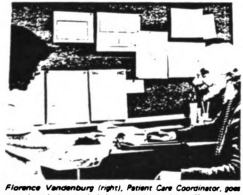
Referral Your Key To Outside Services

Health Central's referral process is an important one, but little known to most members until they need to go to a specialist or be admitted to a hospital. We thought you might like some idea of how "the system" works and how you can best work with it.

Before a Health Central member can go to a medical care provider outside the health center, the member must have prior written authorization. Without authorization, the member is responsible for all bills. The only exception to this are trips to emergency rooms for life-threatening situations. Members need prior written authorization for trips to referral specialists, for inpatient hospitalization, outpatient surgery and all outpatient diagnostic and therapeutic procedures not done in the health center.

The referral process begins with your Health Central provider. If, for example, you have an allergy problem that does not respond to the usual treatment that your provider or someone else on the Health Central staff can provide, your provider may request an allergy consultation. The referral request will then go to the chief of your provider's unit.

If deemed medically necessary and approved by the unit chief, it goes from there to the Health Central Utilization Review Department (UR) for review. Membership is verified and the service is checked to make sure it is a covered benefit.



Florence Vandenburg (right), Patient Care Coordinator, goes over hospital pre-admission procedures with staff consultant Marvie Whitney. The pre-admission appointment facilitates quicker hospital admission and allows Health Central to collect all the necessary patient information.

The referral is logged in UR and sent to the medical director who will authorize or deny your referral to an allergist.

If the referral is approved, the patient is contacted and an appointment is made. It is important to understand that anywhere in this process, the referral can be rejected and sent back to the original provider for review. Perhaps a health center resource has been overlooked or perhaps a better alternative in care is proposed.

The entire referral process usually takes from two to ten days, but an effort is being made to cut the time to two to four days. In cases where immediate authorization is needed, the patient may be given the form to hand-carry to the specialist. In some urgent cases, authorization can also be provided by phone.

Hospital referral authorizations work in the same way and follow the same "flow" through the Health Central system.

Continued on Page 2)

Coping Workshop Begins Next Month

Have you ever wondered why no one ever talks about how to live more easily? We teach people to read and write, to drive a car, and to build computers. But few people are taught the skills of how to live in a complex society full of pressures and problems.

Health Central, as a part of a health education study, now is offering classes for coping with life skills. The classes will begin in February. They will focus on skills that are helpful in everyday family and social life – how to solve problems in living, to communicate effectively, present your point of view, stick up for yourself, etc. Classes will be open to Health Central members over the age of 18 and to other interested adults in the community. The classes are free for members. There is a $10 fee for non-members.

The classes, which begin in February, meet weekly for two hours, 7 to 9 p.m. for eight weeks. Class members are required to attend all eight classes.

For registration information call Social Services at 374-3817.

APPENDIX B

RECEPTIONIST'S RESPONSE TO CALLERS

APPENDIX B

RECEPTIONIST'S RESPONSE TO CALLERS

OK, I have the information you wanted. Health Central, as part of our study in health education, is offering classes in coping skills to people over the age of 18. The classes will begin March 4, 5, and 6, 1980, and meet for two hours, one night a week for eight weeks. The classes will cover a variety of topics about coping and living skills and will include lecture and discussion time, practice exercises, and homework assignments. All classes will be held in the conference room, Ingham Medical Professional Center, 405 W. Greenlawn, Lansing, Michigan.

If you would like to sign up for a class, I will need your name, phone number, and subscriber number.

APPENDIX C

AUTHORIZATION FOR DISCLOSURE OF MEDICAL RECORD INFORMATION

APPENDIX C

A Subsidiary of
Blue Cross and Blue Shield of Michigan

HEALTH CENTRAL 2316 South Cedar Street • Lansing, Michigan 48910 • Phone 517/374-6600

AUTHORIZATION FOR DISCLOSURE OF MEDICAL RECORD INFORMATION

ANY DISCLOSURE OF HEALTH RECORD INFORMATION BY THE RECIPIENT(S) IS PROHIBITED EXCEPT WHEN IMPLICIT IN THE PURPOSES OF THIS DISCLOSURE.

Subject's Name: _____ _____
Last First Middle Initial Birthdate or Age

Address: _____ _____
Street, City, State, Zip Phone

The Undersigned hereby authorizes and requests:

_____
Name Address

To provide: _____
Name Address

_____
Identity of third party or name(s) of any duly authorized representative(s)

with access to my health records for the purposes of review and examination and further authorizes and requests that _____ provide such copies thereof as may be requested for a reasonable fee.

The foregoing is limited as indicated below:

( ) 1. Confined to records regarding treatment for the following medical condition or injury: _____
on or about _____
dates

( ) 2. Covering records for the period from _____ to _____.
date date

( ) 3. Confined to the following specified information: _____
_____.

( ) 4. Without regard to any limitations placed on dates, history of treatment, or diagnostic and therapeutic information, including any treatment for alcohol or drug abuse.

_____ _____
Witness (if #4 is signed) Signature of Enrollee if #4 is checked

Expiration date of authorization (if any) _____

Signature: _____ Date: _____
If signed by authorized representative, state relationship and authority to do so.

APPENDIX D

CONSENT FORM FOR COPING-SKILL STUDY

APPENDIX D

CONSENT FORM FOR COPING-SKILL STUDY

1. I have freely consented to take part in a scientific study being conducted by William M. Griz under the supervision of William Hinds, Ph.D., Professor of Counseling, Personnel Services, and Educational Psychology, Michigan State University.

2. I understand that to participate in this study I will fill out one questionnaire, which should take about an hour, and make my medical records available for review.

3. I understand that I am free to discontinue my participation in the study at any time without penalty.

4. I understand that the results of the study will be treated in strict confidence and that I will remain anonymous. A confidential record of my name and code number will be kept by the researcher so that only I may receive my own questionnaire results. Results of my own questionnaire responses will be made available to me at my request.

5. I understand that my participation in the study does not guarantee any beneficial results to me.

6. I understand that, at my request, I can receive additional explanation of the study after my participation is completed.

Signed:_____ Date:_____

Witness:_____ Date:_____

APPENDIX E

COPING-SKILLS INSTRUCTORS

APPENDIX E

COPING-SKILLS INSTRUCTORS

PERSONAL DATA

Name:	J. Keith Ostien	Birthdate:	August 21, 1947
Address:	427 LaSalle Boulevard Lansing, Michigan 48912	Height: Weight:	6' 0" 170 lbs.
		Family Status:	Married, with five children
Age:	32		

EDUCATION

B.A. - Houghton College, Houghton, New York
Major - Psychology - June, 1969

M.A. - Michigan State University, East Lansing, Michigan
Major - Rehabilitation Counseling - September, 1970

Ph.D. - Michigan State University, East Lansing, Michigan
Major - Rehabilitation Counseling - June, 1979

PROFESSIONAL EXPERIENCE

August 1975 to present:

For the past five years I have been employed in a half-time position as a psychologist with the Ingham County Probate Court. In that position I have had the following responsibilities: (1) conducting psychological evaluations of children, parents, and family systems in order to facilitate the development of treatment programs for the children and/or families; (2) serving as the liaison between the court and the Bureau of Rehabilitation in order to improve mutual understanding of services and to coordinate the exchange of information regarding mutual clients; (3) serving as the supervisor and administrator of the court "Module" program. This program was developed in an effort to maximize the exchange of information regarding children/families among the various court and community services involved, leading to "team" decisions about the direction of treatment for that child/family; (4) conducting individual, family, and group psychotherapy with clients of the court; and (5) supervising graduate-level interns in psychology and rehabilitation counseling.

December 1974 to present:

In this full-time position I have functioned as a psychologist with the Psychological Evaluation and Treatment Center, a private outpatient psychological clinic. Responsibilities have included: (1) conducting individual, marital, and family psychotherapy; (2) developing, researching, and conducting a model for short-term,

individual psychotherapy designed to facilitate adjustment to divorce; (3) completing large numbers of psychological evaluations for private attorneys, physicians, insurance groups, social agencies, and the Bureau of Rehabilitation. The majority of the psychological evaluations have been for the Bureau of Rehabilitation, and these reports have sought to define the psychological impact of an individual's disability, current levels of aptitude, achievement, and interest, and to incorporate the implications of all these factors into the overall rehabilitation plan; (4) conducting Vocational Exploration Groups with clients of the Bureau of Rehabilitation, in conjunction with members of that staff; and (5) serving as the liaison between the clinic and the Bureau of Rehabilitation, periodically conducting in-service training seminars for the Bureau of Rehabilitation staff regarding topics such as caseload management, maximizing the use of the psychological evaluations, enhancing the counseling relationships with their clients, and integrating community programs in the rehabilitation plans for their clients.

April 1974 to September 1974:

In this position I functioned as the clinical supervisor and administrator of the inpatient facility at the Genesse County Community Mental Health Center in Flint, Michigan. Responsibilities included: (1) supervising and coordinating development of appropriate treatment plans for patients; (2) conducting individual and group supervision with the staff members; (3) participating in individual and group psychotherapy; (4) coordinating inter-agency efforts to properly place and support discharged individuals; and (5) presenting in-service training workshops. I left this position in order to begin doctoral work at Michigan State University.

January 1973 to April 1974:

During this period of time I functioned as a psychologist in the outpatient program of the Genesse County Community Mental Health Clinic in Flint, Michigan. Responsibilities included: (1) conducting individual and group psychotherapy; (2) conducting psychological evaluations; and (3) coordination of services with other community agencies and resources. I left this position to become the clinical supervisor of the inpatient unit.

May 1972 to January 1973:

In this position I functioned as a rehabilitation counselor with the Division of Vocational Rehabilitation--now known as the Bureau of Rehabilitation. I managed a general caseload, and responsibilities included: (1) gathering all data available regarding an individual's past functioning, current level of disability, and current interests and capabilities in order to develop the most appropriate rehabilitation plan for that individual; (2) working with each client, in a counseling setting, to ensure that individual's participation in and responsibility for their own

rehabilitation effort; (3) coordination of services with other community resources in the areas of work evaluation programs, vocational and academic training, and job placement; (4) developing and maintaining close relationships with the psychological and medical communities.

October 1970 to April 1972:

I entered the Army following completion of the Master's degree in September, 1970. I was stationed at CINCPAC, Oahu, Hawaii, throughout the time I was in the military. My position was that of administrative officer in a newly formed drug abuse division under Colonel Suddeby. In addition to my normal duties, I was assigned to a special four-man research group for approximately six months. The purposes of this research effort were to identify the incidence of drug usage throughout the Pacific command, identify possible causal factors for the drug usage, and make recommendations for effective treatment and prevention of such drug usage. In order to accomplish these tasks, the research group traveled extensively throughout Vietnam, Okinawa, Thailand, and Korea. The product of this effort was a major document which became the basis for the military's response to the drug abuse problem throughout the Pacific command.

ADDITIONAL EXPERIENCE

September 1974 to December 1974:

I taught two courses in the psychology department of John Wesley College as an adjunct professor. These courses were in child development and psychopathology.

September 1974 to June 1976:

As part of my graduate assistantship, I frequently assisted in teaching courses in the rehabilitation counseling program at the Master's level. These courses dealt with areas such as the history of vocational rehabilitation, the counseling process, and uses and functions of community agencies.

CONSULTATION EXPERIENCE

- National District Attorneys Association Annual Convention; July, 1975; Montreal, Canada. Subject: Ways to enhance the effectiveness of training of the legal staff.

- National District Attorneys Association Victim-Witness Conference; September, 1978; Memphis, Tennessee. Subject: Factors involved in marital violence.

- Periodic consultation with the Bureau of Rehabilitation in Lansing, Michigan, on a variety of topics.

- Periodic consultation with the Parents Without Partners program in Lansing, Michigan, regarding adjustment to divorce.

- Periodic consultation with the counseling staffs of the Lansing area schools regarding working with delinquent children.

LICENSURE

Licensed as a psychologist in the state of Michigan. I.D. Number - 01531

PROFESSIONAL MEMBERSHIPS

Member - American Psychological Association
Member - Michigan Psychological Association

DISSERTATION SUBJECT

Facilitating Adjustment to Divorce Through Time-Limited, Individual, Self-Concept Based Psychotherapy.

REFERENCES

Rom Kriauciunas, Ph.D.
Psychologist
Psychological Evaluation and Treatment Center, Inc.
4990 Northwind Drive, Suite 235
East Lansing, Michigan 48823

James Engelkes, Ph.D.
Director
Rehabilitation Counselor Training Program
432 Erickson Hall
Michigan State University
East Lansing, Michigan 48823

Warren Ritter
Director
Children's Services
Ingham County Probate Court
303 W. Kalamazoo Street
Lansing, Michigan

MAURICE A. GRONDIN

2415 East Jolly Road #9
Lansing, Michigan 48910
Phone: (517) 394-2694

PERSONAL DATA

Date of Birth: August 14, 1945 Height: 6'
Marital Status: Married Weight: 175 lbs.

EMPLOYMENT OBJECTIVE

A social work position, preferably in a clinical setting, employing a multiple-treatment modality. Specific areas of interest and training are individual, child, conjoint, family and group therapy.

EDUCATION

M.S.W. Program, Michigan State University, East Lansing, Michigan. GPA: 3.85/4.00. Expected graduation date: June 1978.

B.A. Michigan State University, East Lansing, Michigan. Major: Marketing December 1967.

CERTIFICATION

State of Michigan - Social Worker

SOCIAL WORK EXPERIENCE

September 1977 - Present: Shiawassee County Mental Health Center, Owosso, Michigan. Supervisor: Mary Louise Stimson, M.S.W. Second-year practicum. Experience includes long-term intensive individual therapy with adults, conjoint therapy, family therapy, group therapy with adults, intake evaluations, consultation with schools and treatment of emergency walk-in clients.

September 1974 - Present: The Listening Ear of East Lansing (A Crisis Intervention Center). Experience includes brief and crisis work with phone-call and walk-in clients, training new volunteers for such work, consulting for training programs and recruiting and selecting new volunteers. I was also Center Coordinator (Director) from December 1975 to January 1978, which included such duties as being the liaison between the Center and the community, coordinating all Ear activities, formulating the budget and securing necessary funds from various sources.

Fall and Winter 1977-78 School Year: School of Social Work, Michigan State University. Supervisor: Bert Thomas, M.S.W. Facilitated and instructed a lab on interviewing. Experience includes giving practical experience for theories presented in lectures, preparing role-players, offering useful feedback, identifying information lacks in students and providing that information, encouraging group participation, guiding and supervising a facilitator to prepare her for teaching the lab and taking responsibility for the quality of teaching.

September 1976 - June 1977: Edgewood Village (Non-Profit Housing Project), East Lansing, Michigan. Supervisor: Dr. Prudence Brown. First-year practicum. Experience includes long-term intensive individual therapy with adults, family therapy, play therapy with children combined with adjunctive parental treatment, community organization, group work with children and consultation with family practice clinic and schools.

OTHER WORK EXPERIENCE

Summer 1976 and 1977: Health Central, Inc., Lansing, Michigan. Supervisor: Hugh Hufnagel. Duties included various marketing functions for this Health Maintenance Organization.

May 1975 - June 1976: Little People's Day Care Center, East Lansing, Michigan. Supervisor: Barbara Roth. Teacher's Aide.

April 1973 - April 1975: Chemetron Corporation, Chicago, Illinois. Salesman of industrial gases in the mid-Michigan area.

March 1970 - March 1973: Procter and Gamble, Cincinnati, Ohio. Salesman of food products in the Chicago area.

October 1969 - February 1970: Huron Valley School System, Milford, Michigan. Substitute teacher in high schools and junior high schools.

ORGANIZATIONS AND HONORS

National Association of Social Workers.

Phi Alpha Honorary Society, Beta Chapter, East Lansing, Michigan. An honorary organization dedicated to higher standards of training, excellence of scholarship and the distinction of achievement in Social Work.

Member, Board of Directors, The Listening Ear of East Lansing, Michigan, January 1978 - Present.

MILITARY SERVICE

March 1968 - October 1969: United States Army. Personnel Specialist with Honorable Discharge.

REFERENCES

Will be furnished upon request.

CREDENTIALS

Placement Services, Michigan State University, East Lansing, MI 48824. Telephone: (517) 355-9510.

James W. Conklin
2508 Harding
Lansing, MI 48910
H: (517) 487-1980
W: (517) 373-1955

PERSONAL DATA

Birth Date:	April 10, 1945
Family Status:	Single
Physical Status:	Height 5'9" Weight 160 lbs.
Health:	Excellent

EDUCATION

Institution	Major	Degree	Date
Michigan State University East Lansing, MI	Counseling Psychology	Ph.D. (candidate)	1980-1981

With the diversity of theoretical approaches available at MSU, I have tended to be interested in the process-oriented, affective, and developmental processes in clinical approach. This I am integrating with my own background in Transactional Analysis, Gestalt and Neurolinguistic Programming.

My professional interests focus on developing a comprehensive expertise in Holistic Medicine with emphasis on stress management, medical education, bio-feedback and research in psychological applications of medical management.

Michigan State University East Lansing, MI	Rehabilitation Counseling	M.A.	1972-1974

My graduate work emphasized psychology, counseling, in addition to core courses in rehabilitation.

Michigan State University East Lansing, MI	Social Science	B.A.	1963-1969

My undergraduate work concentrated in psychology, sociology and economics.

WORK HISTORY

Date: November 15, 1975 to present
Michigan Rehabilitation Services
910 Southland
Lansing, MI 48910
Position: Rehabilitation Counselor
Description: Provided assessment, vocational testing and vocational counseling plus scheduled all necessary medical tests necessary to make an applicant eligible for services. Developed and coordinated services leading to successful employment of applicants.

Date: January 17, 1971 to November 15, 1975
Disability Determination Service
3000 N. Grand River
Lansing, MI 48917
Position: Disability Determination Examiner
Description: Analyzed applications for Social Security Disability benefits and developed substantiating evidence on decision for benefits was made. Background training in all basic body systems plus psychiatry.

CLINICAL EXPERIENCE/TRAINING

Date: September 1974 - June 1975
1975 - 1976
1976 - 1977
1977 - 1978
1978 - 1979
Huron Valley Institute
Marshall Rd.
Dexter, MI
Supervisor: Michael Brown, Ph.D.
Content: Nine-month training program consisted of one intensive weekend per month from Friday night to Sunday noon. Participants were working professionals who supervised as they worked with other participants. Each participant had personal and professional goals to work on during the year. Transactional analysis and Gestalt were the basic approaches taught. Participants also received supervision in neurolinguistic programming and the theories of Dan Casrid.

Date: September 1973 - June 1975
Open Door Crisis Center, Inc.
1320 S. Washington Ave.
Lansing, MI 48910

Position: Crisis Intervention Volunteer
Description: The Open Door was a crisis center providing crisis counseling on a walk-in and telephone basis. Problems centered around drug-related, family and personal problems. As a volunteer, I worked weekly 4-hour shifts. In my second year I was involved in training volunteers and later in training trainers.

APPENDIX F

AFFECTIVE CURRICULUM

APPENDIX F

AFFECTIVE CURRICULUM

WEEK I

OK, let's get started. My name is _____, and I will be teaching this coping class for the next eight weeks. We will be talking about a lot of different things in these classes. I will be giving some short lectures on topics about coping, and I will ask each of you to do some exercises to practice some of the things that we will be discussing. Some of you might find the exercises difficult, but it is like riding a bike; it is hard at first, but as you practice, it gets easier--it's a skill. So, we are here to talk about coping. What is coping? How about some of your ideas? [Elicit responses from class.] OK, as you can see, we have a lot of ideas about what coping is. For the purposes of this class, coping with problems in living requires that an individual know and be able to communicate his/her feelings and values, and learn new problem-solving skills. This class is going to be split up into three different units of study. The first unit focuses on empathy skills. Empathy is being aware of your own and others' feelings and being able to communicate that awareness. We are going to practice the skill of empathic listening and responding. The second unit of the class will be attitude and value clarification. In this unit we will work to clarify and get to know better your own personal values. Values are what you find important in the world, your rights and wrongs, your goods and bads. The third unit is called the problem-solving unit. In this unit we will learn new ways to approach and solve problems. The last part of the class will be a final examination to find out how well you have acquired coping skills. Any questions?

Good. Now, these classes are part of a study in health education that is being done through Health Central and Michigan State University. We are trying to find out how these classes might help subscribers, what kind of impact they have, and how people may benefit from taking them. To participate in this study, you won't have to do anything different, or extra, than just take the class. There will be a final exam for everyone in the class, and to help us with the study, we will ask that you sign two authorizations to release information. The first one allows us to use your final to compare with people who haven't taken the class. The second authorization allows us to compare your medical records with people who haven't taken the class. By comparing information from you with people who haven't taken the class, we will be able to find out what kind of help these classes are to subscribers.

All this information will be kept strictly confidential, and as soon as the study is completed, we will let you know the results. I am

going to pass out the two authorizations for you to sign. If any of you really don't want us to use your information in this study, please just pass back the authorizations unsigned. You are still free to participate in the class. It will be very helpful to us and to other subscribers, though, if you participate. If you decide later that you would like to participate in the study, just let me know. Are there any questions about the study or about the class at this point?

Most of the time I spent in school, in classes like this one, I got to know the name of the two people who sat on either side of me. We are going to do it a little differently in this class. We are going to get to know each other by our first names, so that when we talk to each other, we can use those first names. We are going to start off tonight doing an exercise called the name round to get to know each other's names. It is really a pretty easy exercise; here's how it goes. The first person right here says his/her name. His/her first name. The second person repeats the first person's name and then says his/her own name. The third person repeats the first person's name, the second person's name, and then his/her own name. This is repeated around the circle. The first few people have it pretty easy; it gets harder as we go along. [Encourage participants to take responsibility for asking if they forget a name.]

Very good. Let's start now on unit one, talking about empathy. There are four elements of communication that we need to talk about here. Number one is the sender, or the speaker, of a message. Number two is the receiver, or listener, of a message. Number three is the message itself. Number four is the response to the message. So, we have four parts to the communication process. We have a sender, a receiver, a message, and the response to the message. When I talk about the message, I am talking about the meaning of what is said. For the purposes of this class, there are two different levels that a message can take. One is cognitive level. This is a thinking or information level. If I asked you, "What time is it?" you would most likely respond with some correct time. You would have given me information. The other level that a message can take is the affective level. This is the level that we are going to be most interested with in this class. The affective level deals with how a person feels. If you tell me that you are feeling hot or cold, happy or sad, depressed or excited, the message would be on the affective level. Empathy, then, deals with the affective level of communication and forms a common ground that is understandable to all people. If you tell me that you feel happy, I know what that feels like. If I tell you that I feel excited, you know what that feels like. There is very little chance for error in communication.

So, focusing on this affective level, the feeling level, let's try another exercise. We are going to make a list of feeling words. [Encourage participants to generate affective terms.]

OK, very good. Let's try one more exercise before we leave tonight. We will put these new terms to use right now. This exercise is called the one-liner exercise. Let's split up into smaller groups first. Let's start here and count off by threes. Good. Now, all the ones come over to this side of the room. All the twos please go to that corner of the room. All of the threes please come over to the side here. Now, starting with whomever you would like to start with, the first person will make a statement that contains some feeling words. Person number two will interpret the feelings that he/she has heard. Simply state the feelings that you heard, or state the feelings that you think the person meant to talk about. The second person will then make a statement containing some feeling words, and the third person will interpret the feelings that he/she heard. Let's try it out now. [Give participants appropriate assistance.]

OK, what was your experience in your groups? [Facilitate feedback.]

We are out of time for tonight. Study your notes, and begin to practice picking out feeling words in conversations. See you next week.

WEEK II

Good evening. Last week we talked about empathy and about the different levels of communication. You were asked to look for feeling words in your conversations. How did you do? [Facilitate group discussion.]

Tonight we are going to practice identifying feelings and communicating on the feeling level. We are going to use a training model developed by Carkhuff and Truax. The model may sound complicated, but once you have done it, it becomes very easy. Essentially, this training model involves a speaker, a listener, and observers. It begins with the speaker and listener engaging in a three-minute conversation. The speaker is to talk about some situation in his/her life. The listener is to identify and feed back feelings that he/she has heard. After three to five minutes, the listener then spends a minute or two talking about how he/she felt listening, what was the impact of the speaker. The speaker then takes a minute or two to evaluate the impact of the listener. Was the feedback helpful? The observers then spend about five minutes giving feedback on the entire interaction between speaker and listener. Finally, the listener then spends several minutes summarizing the speaker and observer feedback. Before we begin using the model, let's spend several minutes talking about feedback. Feedback tells how one's behavior affects another. Feedback also helps to reinforce behavior or to correct behavior. Helpful feedback has several characteristics. Helpful feedback is descriptive, rather than evaluative. Helpful feedback is specific, behavioral, if possible. It is also appropriate--that is, concerned with the needs of both parties involved. Helpful feedback is also usable. Feedback on some behavior is useless if the behavior can not be changed. Feedback is

also most helpful if it is requested, solicited, rather than imposed. Helpful feedback is also clear and accurate. Is it your own perception, or a shared perception?

OK, with these characteristics in mind, will someone volunteer to be the speaker, while I am the listerner, to illustrate for the rest of the class the training model. [Model empathy skills, answer class questions.] If there are no other questions, let's split up into smaller groups and practice using this model. Count off by fours, please. Everyone who is a one over in this corner, twos that corner, threes the other corner, and fours the last corner. Good, now each group should decide among themselves who will be the first speaker and the first listener. Each person in the group should have a chance to be both the speaker and the listener. [Instructor must be very active at this point to assist students in following the training model.]

We are almost out of time for tonight. Let's get back together as a class, and I will answer any questions that you may have. [Facilitate discussion of exercise.] That is all the time for tonight. Begin practicing this skill on your own. If you don't practice this skill, you will not pick up the skill. See you all next week.

WEEK III

Last week we used a training model to begin building empathy skills in communication. How did your practicing go this week? [Facilitate discussion.]

Let's go over the model again. We are attempting to build some skills in empathic communication: communication dealing with the feeling level, which forms a common ground between us all. The model that we used last week involves a speaker and a listener in a three- to five-minute conversation. The listener then spends one or two minutes talking about how he/she felt listening, what was the impact of the speaker. The speaker takes one or two minutes to evaluate the impact of the listener: was the listener helpful. The observers then spend about five minutes giving feedback on the interaction between the speaker and the listener. Finally, the listener spends five minutes summarizing the speaker and observer feedback. Are there any questions about the model? Let's break up into groups again and practice this communication skill. Let's count off by fours. Ones in this corner, twos in this corner, threes in this corner, fours in that corner. Everyone in the group is to be a speaker and a listener at least once this evening.

We are almost out of time for this evening. Let's get back together as a class, and I will answer any questions that you may have. We have to stop for this evening, but keep practicing at home. I can not emphasize enough, that you have to practice this skill to learn it. See you all next week.

WEEK IV

I hope all of you have been conscientious this week and have practiced your empathic communicating skills. Again, you can not learn the skill if you don't practice it on your own. Tonight we are going to begin talking about values. What are personal values? [Facilitate group generation of definitions.] Good. For the purposes of this class, we are going to define values as things that people find important. Values affect and govern behavior and have a great deal to do with determining how a person feels. Values also serve as guidelines for problem solving. If you are having a problem with your boss or your husband and you value nonviolence, homicide is not an alternative for problem solving.

Let's try an exercise to illustrate what values are. This is called a tape-recorder exercise. Person A voices, or speaks about, his/her values for about three minutes. Person B then reflects back to Person A the values that he/she has heard. Person B then talks about his/her values for about three minutes. Person C then reflects the values that he/she heard back to Person B. We will continue around the room until everyone has talked about his/her personal values. Who would like to start off? [Facilitate exercise.]

Good. What was it like to talk about your own personal values and to hear about others' values?

OK, let's try another exercise to clarify our personal values. This is called the atomic bomb fallout shelter exercise. [See Appendix O.] Process exercise with the following questions: How well did you listen to others? Did you allow yourself to be pressured into changing your mind? Did you help the group reach a decision? Did you feel that you had the right answer? What did your selections say about your values?

WEEK V

Last week we talked about values, our personal values, how they can determine feelings, and how they can contribute to interpersonal difficulties. What did you think about this week in terms of our exercises?

This week we are going to do another exercise on values. This exercise is called the values auction. [See Appendix O.] It is designed to clarify further your personal values. [Facilitate group discussion of values.]

Well, what did you find out about your own values?

WEEK VI

Hopefully, you have all been thinking about how your personal values determine your feelings and your behavior. This week we are going to finish up our discussion of values. We are going to be doing one last exercise. This exercise is called the island game. [Hand out island game exercise.] Are there any questions? Fine, go right ahead with the exercise. [Instructors should process this exercise with the following focus: Were people listening to each other, give feedback to others on behavior which facilitated group process, did you argue hard for your own ranking?]

Fine, so we have spent time looking at how personal values act as a structure within which feelings occur. Please spend this week thinking about how personal values are involved in each of the behaviors in your lives.

WEEK VII

This week we are going to discuss problem solving. Problem solving puts the material from the first six sessions together into a process. Coping is a process by which we maximize our options and choose one which matches our values system.

The problem-solving process involves nine steps. To problem solve efficiently, we must first state the problem. The more clearly we state the problem, the easier the problem-solving process will be. The second step in problem solving is to list the available options. This is a process of brainstorming. Don't begin to evaluate the options at this point; simply list all that you can think of. The third step in the problem-solving process is to evaluate the options according to your feelings, needs, and values. The fourth step is then to choose the top three options, which seem to offer the highest probability of success and satisfaction. Next, we are to evaluate each of these three options in relation to the goals that we have set up. Which option seems to best fit our stated goal? Step six is to choose one of the three options. Step seven is a rehearsal of our option; what you can do is try the option out beforehand in your mind. You should picture and mentally rehearse the option and evaluate the consequences. The eighth step is to go ahead and perform the problem-solving option. Our last and most important step is to evaluate our results in relation to our original goals. Has your behavioral option accomplished your desired results?

Let's try an exercise to illustrate this process. Here is the problem. You have received a new puppy as a present, and you must housebreak the dog. Use the problem-solving process to formulate and carry out a plan. [Instructor facilitates group discussion of results.]

Let's try a more difficult problem this time. For the time being, your elderly parent will be living with you. This parent is very demanding and will sit in his/her room unless you are around. Use the problem-solving process to formulate and carry out a plan. [Instructor facilitates group discussion of results.]

We have some homework this week. This is a written homework assignment. Each of you is to brainstorm your life fantasies and goals. You are then to formulate plans, using the problem-solving process, to reach them.

WEEK VIII

Let's begin tonight by talking about the homework. How well were you able to use the problem-solving sequence? [Instructor facilitates group discussion of the problem-solving sequence.]

OK, we have spent eight weeks talking about empathy, values, and problem solving. Who will summarize empathy and empathic communication for the class? Good, so empathy is being aware of your own and others' feelings, and communicating that understanding. Next, we spent time talking about personal values. What do we mean by personal values? Right, it is very straightforward. Personal values are what are important to you and others. With clarification, you can tie feelings into the value system. Values also serve as guidelines for problem solving. The last portion of our class was devoted to problem solving. Can anyone summarize the nine problem-solving steps? [Instructor should spent time now tying the three content units into a cohesive whole.]

OK, I have enjoyed having this time with you. We have looked at three different components of coping. It is time now for the final exam. Read the instructions to the final exam, and if you have any questions please raise your hand. When you are finished with the exam you may leave. Good luck with your new coping skills.

APPENDIX G

AFFECTIVE-COGNITIVE CURRICULUM

APPENDIX G

AFFECTIVE-COGNITIVE CURRICULUM

WEEK I

OK, let's get started. My name is _____, and I will be teaching this coping-skill class for the next eight weeks. We will be talking about a lot of different things in these classes. I will be giving some short lectures on topics about coping, and I will ask each of you to do some exercises to practice some of the things that we will be discussing. Some of you might find the exercises difficult, but it is like riding a bike; it is hard at first, but as you practice, it gets easier--it's a skill. So, we are here to talk about coping. What is coping? How about some of your ideas? [Elicit responses from class.] OK, as you can see, we have a lot of ideas about what coping is. For the purposes of this class, coping with problems in living requires that an individual know and be able to communicate his/her feelings and values, learn new problem-solving skills, and think about problems and the world in clear ways which maximize his/her options in problem solving. This class will be split up into eight different units, about one per week. The first unit focuses on empathy skills. Empathy is being aware of your own and others' feelings and being able to communicate that awareness. The second unit of the class will be attitude and value clarification. In this unit you will work to clarify and get to know better your own personal values. The third unit is called the problem-solving unit, where you will learn a strategy for problem solving. Unit four begins our thinking section and focuses on the maps each of us has of the world, our representational systems. The fifth unit we will cover deals with language usage. The language that each of uses in many ways defines our representational system. Units six and seven will focus on ways in which certain of our words result in thoughts and beliefs about the world, again defining our representational systems. Unit eight will deal with ways to expand and redefine our representational systems. The last part of the class will be a final examination to find out how well you have acquired coping skills. Any questions?

Good. Now, these classes are part of a study in health education that is being done through Health Central and Michigan State University. We are trying to find out how these classes might help subscribers, what kind of impact they have, and how people may benefit from taking them. To participate in this study, you won't have to do anything different, or extra, than just take the class. There will be a final exam for everyone in the class, and to help us with the study, we will ask that you sign two authorizations to release information. The first one allows us to use your final to compare with people who haven't taken the class. The second authorization allows us to compare your medical records with people who haven't taken the class. By comparing

information from you with people who haven't taken the class, we will be able to find out what kind of help these classes are to subscribers.

All this information will be kept strictly confidential, and as soon as the study is completed, we will let you know the results. I am going to pass out the two authorizations for you to sign. If any of you really don't want us to use your information in this study, please just pass back the authorizations unsigned. You are still free to participate in the class. It will be very helptul to us and to other subscribers, though, if you participate. If you decide later that you would like to participate in the study, just let me know. Are there any questions about the study or about the class at this point?

Most of the time I spent in school, in classes like this one, I got to know the name of the two people who sat on either side of me. We are going to do it a little differently in this class. We are going to get to know each other by our first names, so that when we talk to each other, we can use those first names. We are going to start off tonight doing an exercise called the name round to get to know each other's names. It is really a pretty easy exercise. Here's how it goes. The first person right here says his/her name--his/her first name. The second person repeats the first person's name and then says his/her own name. The third person repeats the first person's name, the second person's name, and then his/her own name. This is repeated around the circle. The first few people have it pretty easy; it gets harder as we go along. [Encourage participants to take responsibility for asking if they forget a name.]

Very good. Let's start now on unit one, talking about empathy. There are four elements of communication that we need to talk about here. Number one is the sender, or the speaker, of a message. Number two is the receiver, or listener, of a message. Number three is the message itself. Number four is the response to the message. So, we have four parts to the communication process. We have a sender, a receiver, a message, and the response to the message. When I talk about the message, I am talking about the meaning of what is said. For the purposes of this class, there are two different levels that a message can take. One is cognitive level. This is a thinking or information level. If I asked you, "What time is it?" you would most likely respond with some correct time. You would have given me information. The other level that a message can take is the affective level. This is the level that we are going to be most interested with in this class. The affective level deals with how a person feels. If you tell me that you are feeling hot or cold, happy or sad, depressed or excited, the message would be on the affective level. Empathy, then, deals with the affective level of communication and forms a common ground that is understandable to all people. If you tell me that you feel happy, I know what that feels like. If I tell you that I feel excited, you know what that feels like. There is very little chance for error in communication.

So, focusing on this affective level, the feeling level, let's try another exercise. We are going to make a list of feeling words. [Encourage participants to generate affective terms.]

OK, very good. Let's try one more exercise before we leave tonight. We will put these new terms to use right now. This exercise is called the one-liner exercise. Let's split up into smaller groups first. Let's start here and count off by threes. Good. Now, all the ones come over to this side of the room. All the twos please go to that corner of the room. All of the threes please come over to the side here. Now, starting with whomever you would like to start with, the first person will make a statement that contains some feeling words. Person number two will interpret the feelings that he/she has heard. Simply state the feelings that you heard, or state the feelings that you think the person meant to talk about. The second person will then make a statement containing some feeling words, and the third person will interpret the feelings that he/she heard. Let's try it out now. [Give participants appropriate assistance.]

OK, what was your experience in your groups? [Facilitate feedback.]

We are out of time for tonight. Study your notes, and begin to practice picking out feeling words in conversations. See you next week.

WEEK II

Good evening. Last week we talked about empathy and about the different levels of communication. You were asked to look for feeling words in your conversations. How did you do? [Facilitate group discussion.]

Tonight we are going to practice identifying feelings and communicating on the feeling level. We are going to use a training model developed by Carkhuff and Truax. The model may sound complicated, but once you have done it, it becomes very easy. Essentially, this training model involves a speaker, a listener, and observers. It begins with the speaker and listener engaging in a three-minute conversation. The speaker is to talk about some situation in his/her life. The listener is to identify and feed back feelings that he/she has heard. After three to five minutes, the listener then spends a minute or two talking about how he/she felt listening; what was the impact of the speaker. The speaker then takes a minute or two to evaluate the impact of the listener. Was the feedback helpful? The observers then spent about five minutes giving feedback on the entire interaction between speaker and listener. Finally, the listener then spends several minutes summarizing the speaker and observer feedback. Before we begin using the model, let's spend several minutes talking about feedback. Feedback tells how one's behavior affects another. Feedback also helps to reinforce behavior or to correct behavior. Helpful feedback has several characteristics. Helpful feedback is descriptive, rather than

evaluative. Helpful feedback is specific, behavioral, if possible. It is also appropriate, that is, concerned with the needs of both parties involved. Helpful feedback is also usable. Feedback on some behavior is useless if the behavior can not be changed. Feedback is also most helpful if it is requested, solicited, rather than imposed. Helpful feedback is also clear and accurate. Is it your own perception, or a shared perception?

OK, with these characteristics in mind, will someone volunteer to be the speaker, while I am the listener, to illustrate for the rest of the class the training model. [Model empathy skills; answer class questions.] If there are no other questions, let's split up into smaller groups and practice using this model. Count off by fours, please. Everyone who is a one over in this corner, twos that corner, threes the other corner, and fours the last corner. Good; now each group should decide among themselves who will be the first speaker and the first listener. Each person in the group should have a chance to be both the speaker and the listener. [Instructor must be very active at this point to assist students in following the training model.]

We are almost out of time for tonight. Let's get back together as a class and I will answer any questions that you may have. [Facilitate discussion of exercise.] That is all the time for tonight. Begin practicing this skill on your own. If you don't practice this skill, you will not pick up the skill. See you all next week.

WEEK III

Last week we used a training model to begin building empathy skills in communication. How did your practicing go this week? [Facilitate discussion.]

Let's go over the model again. We are attempting to build some skills in empathic communication: communication dealing with the feeling level, which forms a common ground between us all. The model that we used last week involves a speaker and a listener in a three- to five-minute conversation. The listener then spends one or two minutes talking about how he/she felt listening, what was the impact of the speaker. The speaker takes one or two minutes to evaluate the impact of the listener; was the listener helpful. The observers then spend about five minutes giving feedback on the interaction between the speaker and the listener. Finally, the listener spends five minutes summarizing the speaker and observer feedback. Are there any questions about the model?

I hope all of you have been conscientious this week and have practiced your empathic communicating skills. Again, you can not learn the skill if you don't practice it on your own. Tonight we are going to begin talking about values. What are personal values? [Facilitate group generation of definitions.] Good; for the purposes of this class we

are going to define values as things that people find important. Values affect and govern behavior and have a great deal to do with determining how a person feels. Values also serve as guidelines for problem solving. If you are having a problem with your boss or your husband and you value nonviolence, homicide is not an alternative for problem solving.

Let's try an exercise to illustrate what values are. This is called a tape-recorder exercise. Person A voices, or speaks about, his/her values for about three minutes. Person B then reflects back to Person A the values that he/she has heard. Person B then talks about his/her values for about three minutes. Person C then reflects the values that he/she heard back to Person B. We will continue around the room until everyone has talked about his/her personal values. Who would like to start off? [Facilitate exercise.]

Good. What was it like to talk about your own personal values and to hear about others' values?

OK, let's try another exercise to clarify our personal values. This is called the atomic bomb fallout shelter exercise. [See Appendix O.] Process exercise with the following questions: How well did you listen to others? Did you allow yourself to be pressured into changing your mind? Did you help the group reach a decision? Did you feel that you had the right answer? What did your selections say about your values?

WEEK IV

Last week we talked about values, our personal values, how they can determine feelings, and how they can contribute to interpersonal difficulties. What did you think about this week in terms of our exercises? [Facilitate group discussion.]

This week we are going to discuss problem solving. Problem solving puts the material from the first three sessions together into a process. Coping is a process by which we maximize our options and choose one which matches our values system.

The problem-solving process involves nine steps. To problem solve efficiently, we must first state the problem. The more clearly we state the problem, the easier the problem-solving process will be. The second step in problem solving is to list the available options. This is a process of brainstorming. Don't begin to evaluate the options at this point; simply list all that you can think of. The third step in the problem-solving process is to evaluate the options according to your feelings, needs, and values. The fourth step is then to choose the top three options, which seem to offer the highest probability of success and satisfaction. Next, we are to evaluate each of these three

options in relation to the goals that we have set up. Which option seems to best fit our stated goal? Step six is to choose one of the three options. Step seven is a rehearsal of our option. What you can do is try the option out beforehand in your mind. You should picture and mentally rehearse the option and evaluate the consequences. The eighth step is to go ahead and perform the problem-solving option. Our last and most important step is to evaluate our results in relation to our original goals. Has your behavioral option accomplished your desired results?

Let's try an exercise to illustrate this process. Here is the problem. For the time being, your elderly parent will be living with you. This parent is very demanding and will sit in his/her room unless you are around. Use the problem-solving process to formulate and carry out a plan. [Instructor facilitates group discussion of results.]

We have some homework this week. This is a written homework assignment. Each of you is to brainstorm your life fantasies and goals. You are then to formulate plans, using the problem-solving process to reach them.

WEEK V

Let's begin tonight by talking about the homework. How well were you able to use the problem-solving sequence? [Instructor facilitates group discussion of the problem-solving sequence.]

Very good. Let's start now on our next unit, talking about thinking and representational systems. Every one has a map of the world. We call these maps representational systems. How we deal with problems in living is very often dependent upon how we see the problems. Our maps of the world are very much like the structure of a house. We have a foundation of concrete, we have wooden study and joists in the walls and ceilings, and this structure, to a large part, determines what the house will look like. It is very much the same situation with representational systems. Let me give you an illustration. Everyone look at the picture on the wall there behind you. What do you see in the picture? [Facilitate group description of picture.] OK, so some of you see particular colors, some of you see particular structures, some of you are more impacted on the feeling level, and others are very straightforward in your definition of the picture. We have each used our representational system of the world. Our perceptions of the picture have been different. This is the same situation when we approach a problem. The way we define our map, or representational systems, has a lot to do with how we define the problem and the options that we see. How do you think these representational systems come to be? How is it that each of us has a different one? [Facilitate group discussion.]

OK, so we pretty much agree that many of the components of representational systems are learned. Social learning is a very powerful

attribute in human beings. We all begin pretty empty, with only a few reflexes; we then learn social habits, rules, morals, and values. There are three ways in which learning takes place in human beings. The first is through reward. If we behave in a certain manner, and are rewarded for it, the probability increases that we will again behave in that particular manner. Rewards can take many forms, from food, to a smile, to money, to love. Another way in which we learn is through punishment. If we behave in a particular fashion and are punished, the probability that we will again behave in that particular manner is lessened. Again, punishments may take a number of different forms. Some people may find, for example, the lack of attention punishing; others may not. It is an individual thing. The third major way that we acquire social learning is that of observation. If I see you rewarded for a particular behavior, I am likely to engage in that same behavior myself. Likewise, if I see you punished for a particular behavior, I am more unlikely to engage in that particular behavior.

So we each learn about the world through reward, punishment, and observation. Let's try a written exercise now. Will each of you please list rewarding and punishing elements that you find in your own lives. How did you do? [Facilitate group discussion.]

OK, so we have looked at how people learn. With these three types of learning in mind, let's look at how we build our maps, or representational systems, of the world. There are three major ways in which we build our maps of the world. The first one is generalization. Generalization means applying a specific experience to an entire class of situations. Let me illustrate what I mean. If you light a match and hold it to your finger, it burns and hurts. It wouldn't take too many experiences like this to prompt us to generalize the concept of fire. We would generalize from a specific experience, the match, to the larger class, fire burns and hurts. The second way we build our maps is through a process called deletion. Deletion means ignoring particular portions of our experience. Right now, for instance, we could all be aware of the sounds outside this room, our own breathing, the sounds of the heater, and a number of other things; but, for the most part, we delete those other portions of experience and focus on what I am saying and what you are thinking. If we did not do this, each of us would be literally overwhelmed with the stimuli that are constantly around us. The third way in which we build maps of the world is called distortion. Distortion means the assigning of meaning subjectively to experience. Let me illustrate this. Ralph tells Al, "I really like that coat." Al then distorts the message, assigning his own meaning to it. This meaning could be, "He really thinks my coat is ugly."

Each of these mechanisms or processes is used to create maps of the world and has both positive and negative impact on us. Generalization, for instance, can be used to learn that all fire hurts and burns. Or it can be used against ourselves by generalizing that all expressions

of anger or feelings are bad. Likewise, deletion can be used to allow us to focus our attention and to concentrate. It can also be used to ignore more important elements in our experience. Distortion, similarly, has both a helpful and a nonhelpful usage. I would like to hear some of the class's ideas about these three ways of constructing personal maps of the world. [Facilitate group discussion.]

We are almost out of time for tonight. We have a homework assignment for next week. Each of you is to write a description of a person or an object in your environment. I would like you to write at least one page, simply describing something or someone you are around or know. OK, see you all next week.

WEEK VI

Good evening. Tonight we are going to focus on language usage. The language that each of us uses helps to define our representational systems, our maps. Language is an incredibly powerful component in problem solving. Language seems to be the primary mode of thinking, problem solving, and communication. Many years ago, a gentleman by the name of Benjamin Whorf hypothesized that language defined what we see; that is, things that we perceive around us are determined by the language that we use to describe them. I am not sure that it is quite that clear cut, but language is a very, very potent ingredient in our perceptual processes and in thinking. Language is also a primary component in perceptual discrimination, the completeness of descriptions we give of the things that we see. Now, again, I am not referring to how big of words we can use, the polysyllabic mumbo-jumbo. I am talking about the way we put words together to describe things, the completeness of description, our representational systems.

One concept of language, written or spoken, that we can use to investigate our representational systems is the concept of well-formed sentences. Well-formed sentences create undistorted models. Well-formed sentences in thinking and communication offer the entire richness of experience. The prime question in well-formed sentences is, "Does it make sense?" There are two ways in which human beings often create ill-formed sentences. Both of these ways are very related. The first is called cause and effect. Cause and effect is the belief that some action by one person can cause another person to experience some emotion. For example, the sentence "He made me feel bad," is an ill-formed sentence. No one can cause another person to feel or do anything. What do you people think of this idea? [Facilitate discussion of concept.]

The second major way in which human beings use ill-formed sentences concerns a concept called responsibility. In linguistic terms, this is known as a lost performative. It is very related to cause and effect. Not taking responsibility for a statement, making ill-formed

sentences, involves a generalization about the world. This is also known as owning for oneself. Using the word "you" to refer to yourself, using words such as had to, can't, couldn't help it, etc., are illustrations of not taking responsibility for a statement and making ill-formed sentences.

[Note--This is a difficult section, and care and time must be taken in the presentation to further understanding and acceptance of these concepts.]

Let's split the class into two, right down the middle here. We will form two smaller groups to discuss the concept of well-formed sentences. [Facilitate group discussion of understanding and usage of the concepts of cause and effect and responsibility.]

OK, let's get back together. What do you think about these concepts? [Facilitate large-group discussion of concepts.]

We are almost out of time tonight. Study hard; see you next week.

WEEK VII

Last week we spoke about two concepts, or two instances, of well-formed sentences. We spoke about cause and effect, the belief that some action by one person can cause another person to experience some emotion. We also talked about responsibility. Responsibility is related to cause and effect. It is a generalization about the world, also known as owning for oneself. Using the word "you" to refer to yourself, using words such as had to, can't, couldn't help it., etc. After thinking about cause and effect and responsibility this week, what do you think? [Facilitate group discussion of concepts.]

Another important linguistic concept that goes into making our representational systems is the concept of Logical Sematic Relations. Logical Semantic Relations refer to the consistent judgments that native speakers make about the logical relations reflected in the sentences of their language. The most important example of Logical Semantic Relations, for our present discussion in coping, is that of Presuppositions. There are two major types of Presuppositions that we all use in thinking and communication. Both are distortions of experience. The first is called copping an attitude. Copping an attitude is entering a situation with preconceived expectations that may not be warranted. This could be anything from entering a room feeling certain that everyone will not like you to assuming that your friend is mad at you without asking. Copping an attitude can often change a situation and can cause conflict. The second type of Presupposition that is important for our discussion is referred to as mind reading. Mind reading involves an assumption that one can know what is in someone else's thinking and motivation without asking.

How many times has each of us said to someone, "You say you are not mad, but I really know that you are"? We can certainly pick up different cues to how someone is feeling by their facial expressions, their posture, and other features. But to assume that we know, without a doubt, what is in someone else's thinking and motivation without asking is to invite miscommunication and conflict. What do you think about these two concepts, copping an attitude and mind reading? How do you find yourselves doing these? [Facilitate group discussion of concepts.]

We are out of time for tonight. Study your notes, and begin to practice by picking out and defining your representational systems. Ask other people how they see things, and compare their perceptions to your own. See you next week.

WEEK VIII

Tonight we are going to begin talking about what we can do to construct new representational systems. Coping, remember, is having many options to choose from. Each of us has more options with an expanded representational system.

Actually, we have been involved in the process of constructing new representational systems from the beginning of this class. Some of our first exercises, empathic responding, values clarification, and modes of thinking and speaking were designed to expand representational systems. We can also expand our representational systems by using well-formed sentences. Keeping in mind the concepts of cause and effect and responsibility, these well-formed sentences will assist us in more fully specifying our experiences. We can also expand our systems by keeping the concepts involved in logical semantic relations in mind. Presuppositions, copping attitudes, and mind-reading distort experience and leave out elements that are important to us. Likewise, being well aware of the elements we delete in our thinking and speaking helps us to more fully describe and understand our experience.

We have an exercise tonight that illustrates another way of expanding representational systems. This method of expanding systems is called "Pacing." Pacing is a fantasy process that allows us to define situations in the future that will require new skills. So let's try it. Will everyone please close his/her eyes? Take a deep breath and relax. Just let yourself sink into a chair. After you have spent some time relaxing, I'd like everyone to fantasize a situation one year from today. What will your life be like? What kinds of problems might you encounter? After you have fantasized about your life one year from today, please pick a situation that you believe may be a problem at that time. I would then like you to imagine yourselves reacting to the situation using some of the skills that you have learned in this class. I will give you several minutes to do this.

OK, let's come back together as a class. What was your experience? [Facilitate group discussion of exercise.]

OK, we have spent eight weeks talking about empathy, values, problem solving, and several important components of thinking. Will someone like to sum up the class for us? [Facilitate group discussion summarizing the class.]

I have enjoyed having this time with you. We have looked at several different components of coping. It is time now for the final exam. Read the instructionsl to the final exam, and if you have any questions please raise your hand. When you are finished with the exam, you may leave. Good luck with your new coping skills.

APPENDIX H

COGNITIVE CURRICULUM

APPENDIX H

COGNITIVE CURRICULUM

WEEK I

OK, let's get started. My name is _____, and I will be teaching this coping class for the next eight weeks. We will be talking about a lot of different things in these classes. I will be giving some short lectures on topics about coping, and I will ask each of you to do some exercises to practice some of the things that we will be discussing. Some of you may find the exercises difficult, but it is like riding a bike: it is hard at first, but as you practice it gets easier; it's a skill. So, we are here to talk about coping. What is coping? How about some of your ideas? [Elicit responses from class.]

OK, as you can see, we have a lot of ideas about what coping is. For the purposes of this class, coping with problems in living requires that an individual think about problems and the world in clear ways, which maximizes their options in problem solving. This class will be split into three different units of study; the first unit focuses on thinking. Each of us has a map of the world called a representational system. This is the system within which we do our thinking and problem solving. This map, or representational system, also dictates the number and types of options we see to different problems. The second unit we will be looking at is that of language usage; the language that each of us uses in many ways defines our representational system. Language is a very powerful tool for defining how we see things. The Eskimos, for example, are able to distinguish, through their language, many, many different types of snow. The Arabic language, likewise, has many different terms for camels. These terms not only define the animal as a camel, they specify the sex, age, health, and a number of different things about the animal. As you can see, then, language can be very important in how we construct our representational system. The third unit we will be focusing on in this class will be problem solving. We can all solve problems more efficiently if we expand our representational systems, or maps, and maximize the number of options that we see to each problem. The last part of the class will be a final examination to find out how well you have acquired coping skills. Any questions?

Good. Now, these classes are part of a study in health education that is being done through Health Central and Michigan State University. We are trying to find out how these classes might help subscribers, what kind of impact they have, and how people might benefit from taking them. To participate in this study, you won't have to do anything different, or extra, than just take the class. There will be a final exam for everyone in the class and, to help us with the study, we will ask that you sign two authorizations to release information. The first

one allows us to use your final to compare with people who haven't taken the class. The second authorization allows us to compare your medical records with people who haven't taken the class. By comparing information from you with people who haven't taken the class, we will be able to find out what kind of help these classes are to subscribers.

All this information will be kept strictly confidential, and as soon as the study is completed, we will let you know the results. I am going to pass out the two authorizations for you to sign. If any of you really don't want us to use your information in this study, please just pass back the authorizations unsigned. You are still free to participate in the class, but it will be very helpful to us and to other subscribers if you do participate. If you decide later that you would like to participate in the study, just let me know. Are there any questions about the study or the classes at this point?

Most of the time I spent in school, in classes like this one, I got to know the name of the two people who sat on either side of me. We are going to do it a little differently in this class. We are going to get to know each other by our first names, so that when we talk to each other, we can use those first names. We are going to start off tonight with an exercise called the name round to get to know each other's names. It is really a pretty easy exercise; here's how it goes. The first person right here says his/her name--his/her first name. The second person repeats the first person's name and then says his/her own name. The third person repeats the first person's name, the second person's name, and then his/her own name. This is repeated around the circle. The first few people have it pretty easy. It gets harder as we go along. [Encourage participants to take responsibility for asking if they forget a name.]

Very good. Let's start now on unit one, talking about thinking and representational systems. Every one has a map of the world. We call these maps representational systems. How we deal with problems in living is very often dependent upon how we see the problems. Our maps of the world are very much like the structure of a house. We have a foundation of concrete, we have wooden studs and joists in the walls and ceilings, and this structure, to a large part, determines what the house will look like. It is very much the same situation with representational systems. Let me give you an illustration. Everyone look at the picture on the wall there behind you. What do you see in the picture? [Facilitate group description of picture.] OK, so some of you see particular colors, some of you see particular structures, some of you are more impacted on the feeling level, and others are very straightforward in your definition of the picture. We have each used our representational system of the world. Our perceptions of the picture have been different. This is the same situation when we approach a problem. The way we define our map, or representational systems, has a lot to do with how we define the problem and the options that we see.

We are out of time for tonight. Study your notes and begin to practice by picking out and defining your representational systems. Ask other people how they see things and compare their perceptions to your own. See you next week.

WEEK II

Good evening. Last week we talked about thinking and representational systems. We talked about personal maps of the world and ways of seeing things. You were asked to compare your perceptions with those of other people around you. How did you do? [Facilitate group discussion.]

Tonight we are going to continue with our discussion of representational systems. How do you think these representational systems come to be? How is it that each of us has a different one? [Facilitate group discussion.]

OK, so we pretty much agree that many of the components of representational systems are learned. Social learning is a very powerful attribute in human beings. We all begin pretty empty, with only a few reflexes; we then learn social habits, rules, morals, and values. There are three ways in which learning takes place in human beings. The first is through reward. If we behave in a certain manner and are rewarded for it, the probability increases that we will again behave in that particular manner. Rewards can take many forms, from food, to a smile, to money, to love. Another way in which we learn is through punishment. If we behave in a particular fashion and are punished, the probability that we will again behave in that particular manner is lessened. Again, punishments may take a number of different forms. Some people may find, for example, the lack of attention punishing; others may not. It is an individual thing. The third major way that we acquire social learning is that of observation. If I see you rewarded for a particular behavior, I am likely to engage in that same behavior myself. Likewise, if I see you punished for a particular behavior, I am more unlikely to engage in that particular behavior.

So we each learn about the world through reward, punishment, and observation. Let's try a written exercise now. Will each of you please list rewarding and punishing elements that you find in your own lives. How did you do? [Facilitate group discussion.]

OK, so we have looked at how people learn. With these three types of learning in mind, let's look at how we build our maps, or representational systems, of the world. There are three major ways in which we build our maps of the world. The first one is generalization. Generalization means applying a specific experience to an entire class of situations. Let me illustrate what I mean. If you light a match and hold it to your finger, it burns and hurts. It wouldn't take too many experiences like this to prompt us to generalize the concept of fire. We

would generalize from a specific experience, the match, to the larger class, fire burns and hurts. The second way we build our maps is through a process called deletion. Deletion means ignoring particular portions of our experience. Right now, for instance, we could all be aware of the sounds outside this room, our own breathing, the sounds of the heater, and a number of other things, but for the most part, we delete those other portions of experience and focus on what I am saying and what you are thinking. If we did not do this, each of us would be literally overwhelmed with the stimuli that are constantly around us. The third way in which we build maps of the world is called distortion. Distortion means the assigning of meaning subjectively to experience. Let me illustrate this. Ralph tells Al, "I really like that coat." Al then distorts the message, assigning his own meaning to it. This meaning could be, "He really thinks my coat is ugly."

Each of these mechanisms or processes is used to create maps of the world and have both positive and negative impact on us. Generalization, for instance, can be used to learn that all fire hurts and burns. Or it can be used against ourselves by generalizing that all expressions of anger or feelings are bad. Likewise, deletion can be used to allow us to focus our attention and to concentrate. It can also be used to ignore more important elements in our experience. Distortion, similarly, has both a helpful and a nonhelpful usage. I would like to hear some of the class's ideas about these three ways of constructing personal maps of the world. [Facilitate group discussion.]

We are almost out of time for tonight. We have a homework assignment for next week. Each of you is to write a description of a person or an object in your environment. I would like you to write at least one page, simply describing something or someone you are around or know. OK, see you all next week.

WEEK III

Good evening. Tonight we are going to focus on language usage. The language that each of us uses helps to define our representational systems, our maps. Language is an incredibly powerful component in problem solving. Language seems to be the primary mode of thinking, problem solving, and communication. Many years ago, a gentleman by the name of Benjamin Whorf hypothesized that language defined what we see; that is, things that we perceive around us are determined by the language that we use to describe them. I am not sure that it is quite that clear cut, but language is a very, very potent ingredient in our perceptual processes and in thinking. Language is also a primary component in perceptual discrimination, the completeness of descriptions we give of the things that we see. Now, again, I am not referring to how big of words we can use, the polysyllabic mumbo-jumbo. I am talking about the way we put words together to describe things,

the completeness of description. One way to explore our language usage is to look at our style of language.

In thinking and communicating, most of us, through years of experience and learning, have adopted a particular mode or style of language use. These different modes or styles of language usage reflect individual differences in orientation. These differences in orientation can be classified as either a feeling or a thinking mode. Let me try to illustrate what I am talking about. Let's list words that fit in one of the two modes. Let's begin with feeling words. Right now, I am talking about words like happy, sad, angry, depressed, and joyful. What are some others? [Facilitate group generation.]

Good; now let's make a list of thinking words. I am talking about words that do not have a feeling tone. These are words such as clear, loud, picture, understandable, pleasurable. Can you think of some others? [Facilitate group generation.]

Very good. Now, we have two lists of words that illustrate the two different personal modes of language usage. Will everyone please take out their homework assignment. What we are going to do now is to score our homework to determine which mode each of you prefers. Simply go through your written description and underline feeling words. Then go back through your written description and circle thinking words. Finally, go through and tally up how many of each type of word are present in your description. If you have any questions, please raise your hand.

OK, what did you find? [Facilitate group discussion of modes.]

OK, we are almost out of time for this evening. Your homework assignment for this week will be to rewrite your description. In rewriting, make an effort to use terms that are not in your primary mode; that is, if you are primarily a feeling-mode person, using thinking mode and language in rewriting your description. Give this assignment some time and energy, and you might find it very useful. See you all next week.

WEEK IV

One concept of language, written or spoken, that we can use to investigate our representational systems is the concept of Well-Formed Sentences. Well-Formed Sentences create undistorted models. Well-Formed Sentences in thinking and communication offer the entire richness of experience. The prime question in Well-Formed Sentences is, "Does it make sense?" There are two ways in which human beings often create ill-formed sentences. Both of these ways are very related. The first is called cause and effect. Cause and effect is the belief that some action by one person can cause another person to experience

some emotion. For example, the sentence, "He made me feel bad," is an ill-formed sentence. No one can cause another person to feel or do anything. What do you people think of this idea? [Facilitate discussion of concept.]

The second major way in which human beings use ill-formed sentences concerns a concept called responsibility. In linguistic terms, this is known as a lost performative. It is very related to cause and effect. Not taking responsibility for a statement, making ill-formed sentences, involves a generalization about the world. This is also known as owning for oneself. Using the word "you" to refer to yourself, using words such as had to, can't, couldn't help it, etc., are illustrations of not taking responsibility for a statement and making ill-formed sentences.

[Note--This is a difficult section, and care and time must be taken in the presentation to further understanding and acceptance of these concepts.]

Let's split the class into two, right down the middle here. We will form two smaller groups to discuss the concept of well-formed sentences. [Facilitate group discussion of understanding and usage of the concepts of cause and effect and responsibility.]

OK, let's get back together. What do you think about these concepts? [Facilitate large-group discussion of concepts.]

We are almost out of time tonight. We have a homework assignment for next week. Keep a log noting incidents where ill-formed sentences are used during this coming week. Bring your log with you to class next week.

WEEK V

Last week we spoke about two concepts, or two instances, of well-formed sentences. We spoke about cause and effect, the belief that some action by one person can cause another person to experience some emotion. We also talked about responsibility. Responsibility is related to cause and effect. It is a generalization about the world, also known as owning for oneself. Using the word "you" to refer to yourself, using words such as had to, can't, couldn't help it., etc. After thinking about cause and effect and responsibility this week, what do you think? [Facilitate group discussion of concepts.]

Will everyone please take out their homework. What did each of you find as you noted incidents involving ill-formed sentences this week? [Facilitate group discussion of homework.] What might have been some possible outcomes to the homework situations had well-formed concepts been used? [Facilitate discussion.]

Another important linguistic concept that goes into making our representational systems is the concept of Logical Semantic Relations. Logical Semantic Relations refer to the consistent judgments that native speakers make about the logical relations reflected in the sentences of their language. The most important example of Logical Semantic Relations, for our present discussion in coping, is that of Presuppositions. There are two major types of Presuppositions that we all use in thinking and communication. Both are distortions of experience. The first is called copping an attitude. Copping an attitude is entering a situation with preconceived expectations that may not be warranted. This could be anything from entering a room feeling certain that everyone will not like you to assuming that your friend is mad at you without asking. Copping an attitude can often change a situation and can cause conflict. The second type of presupposition that is important for our discussion is referred to as mind reading. Mind reading involves an assumption that one can know what is in someone else's thinking and motivation without asking. How many times has each of us said to someone, "You say you are not mad, but I really know that you are"? We can certainly pick up different cues to how someone is feeling by their facial expressions, their posture, and other features. But to assume that we know, without a doubt, what is in someone else's thinking and motivation without asking is to invite miscommunication and conflict. What do you think about these two concepts, copping an attitude and mind reading? How do you find yourselves doing these? [Facilitate group discussion of concepts.]

OK, that's all the time we have for tonight. Study your notes and simply watch how each of you uses these behaviors. See you next week.

WEEK VI

Good evening. Last week we spoke about Logical Semantic Relations. We spoke about presuppositions, distortions of experience. Two types of presuppositions that we talked about are "copping an attitude" and "mind reading." How did each of you find yourself doing these behaviors this week? [Facilitate group discussion of concepts.]

We are going to do an exercise now that should help each of you to clarify the presuppositions you hold about yourselves. [Pass our written exercise.] This paper-and-pencil exercise is called the Self-Attitude Scale [see Appendix O]. As you notice, there are three columns designated Real Self, How Others See Me, and Ideal Self. At the bottom you will notice a scale from 1 to 5. One designates that you strongly agree. Five designates that you strongly disagree. Along the left-hand margin you will see a number of descriptors such as "cheerful," "persistent," etc. I'd like you to begin the exercise by following down the Real Self column and assigning scale values, 1-5, to describe your level of agreement with each of the descriptors on the left-hand column. For example, do you see your real self as being cheerful? If

so, you would assign a #1 or a #2, depending upon the amount of agreement you see. Follow all tne way down the Real Self column, assigning numbers to each of the descriptors. Then begin down the How Others See Me column. Simply repeat the process down this second column. Again, the third column, Ideal Self, is filled out in the same manner. Try to work quickly; don't think about it too long. We have about 15 minutes to complete this exercise.

What kinds of differences do you see across rows between Real Self, How Others See Me, and Ideal Self? [Facilitate group discussion of differences.]

Tonight we are going to discuss deletion transformations. Deletion transformations are generalizations and distortions that incompletely represent a situation or experience. There are three types of deletion transformations. The first one is called "definite elements." Definite elements involves the person or thing that establishes a comparison is deleted. For example, the statement, "He is a bad husband." The comparison element has been deleted in this statement. "He is a bad husband" compared to what? Can you think of some other examples of deleting definite elements?

The second type of deletion transformation we will be talking about is called "referential indices." Referential indices are very related to definite elements. Referential indices are concerned with the complete specifications of nouns. For example, the statement, "People don't appreciate me." Using the word "people" does not completely specify who. We must, to completely represent our experience, establish a reference specification--who?

The third type of deletion transformation is called "nominalizations." Nominalizations involve treating processes as events. For example, the statement, "My marriage is terrible." Marriages are ongoing things. They are a process. The statement has treated marriage as an event. A process statement that more completely describes the intent of the previous statement would be, "Certain things that happen within my marriage are terrible." What we are trying to do is increase discrimination.

Each of these three types of deletion transformations results in an incomplete representation of a situation or experience. What we are attempting to do is to increase discrimination, increase specification, and expand our representational systems. How can each of you see yourselves deleting in these three ways? [Facilitate group discussion of concepts.]

We are almost out of time for tonight. The homework for this week will be to watch how each of you uses Logical Semantic Relations and deletion transformations. Try to be aware of any patterns you will see. See you all next week.

WEEK VII

Good evening. We have spent the last two weeks talking about Logical Semantic Relations. You will remember, there are two main types of Logical Semantic Relations. The first is presuppositions. The two types of presuppositions that we talked about were "copping an attitude" and "mind reading." Copping an attitude refers to a person entering a situation with preconceived expectations that may not be warranted. For example, coming home from work angry and being angry with your family. The second type of presupposition that we talked about was mind reading. Mind reading is an assumption that one can know what is in someone else's thinking and motivation without asking. Often, we think we know better about what is happening in someone's mind than they do.

The second type of Logical Semantic Relation that we talked about was called "deletion transformation." There are three types of deletion transformations that we spoke of. The first is deletion of definite element. That is, the person or thing that establishes a comparison is deleted. For example, "This is a lost day." Compared to what? The second type of deletion transformation we spoke about was "referential indices." Referential indices are closely related to definite elements and refer to complete specification of nouns. For example, the statement, "The whole world hates me." We must establish a reference. Who, specifically, does not like you?

The third type of deletion transformation that we spoke of was called "nominalizations." Nominalizations referred to treating processes as events. For example, the statement, "My marriage is terrible," turns a process (marriage) into an event.

What we are talking about with Logical Semantic Relations is a process of more closely discriminating experience. We are trying to minimize generalizations, deletions, and distortions that incompletely represent the situation or an experience. We are attempting to expand our representational systems by very closely specifying all the elements of our experience. What do you think about this section? Any questions?

Tonight we are going to begin talking about what we can do to construct new representational systems. Coping, remember, is having many options to choose from. Each of us has more options with an expanded representational system.

Actually, we have been involved in the process of constructing new representational systems from the beginning of this class. Some of our first exercises, concerning modes of thinking and speaking, were designed to expand representational systems. This is a process called "overlapping." Overlapping is adding the complimentary mode to thinking and communication. This is something that you should be continuing to practice. The second way to expand our representational

system is by a process called "matching." We can all communicate more effectively if we recognize our own mode, and can communicate in the mode of the interactive partner. We can also expand our representational systems by using well-formed sentences. Keeping in mind the concepts of cause and effect, and responsibility, these well-formed sentences will assist us in more fully specifying our experiences. We can also expand our representational systems by keeping the concepts involved in Logical Semantic Relations in mind. Presuppositions, copping attitudes, and mind reading distort experience and leave out elements that are important to us. Likewise, being well aware of the elements we delete in our thinking and speaking helps us to more fully describe and understand our experience.

We have an exercise tonight that illustrates another way of expanding representational systems. This method of expanding systems is called "pacing." Pacing is a fantasy process that allows us to define situations in the future that will require new skills. So let's try it. Will everyone please close their eyes? Take a deep breath and relax. Just let yourself sink into a chair. After you have spent some time relaxing, I'd like everyone to fantasize a situation one year from today. What will your life be like? What kinds of problems might you encounter? After you have fantasized about your life one year from today, please pick a situation that you believe may be a problem at that time. I would then like you to imagine yourselves reacting to the situation using some of the skills that you have learned in this class. I will give you several minutes to do this.

OK, let's come back together as a class. What was your experience? [Facilitate group discussion of exercise.]

We are about out of time for this evening. Study and review your notes. You may also want to try this fantasy exercise on your own. Pick an era of time, any situation, and fantasize the way you would like to handle this situation. See you all next week.

WEEK VIII

Good evening. This is the last session of our classes on coping skills. I'd like to spend the first part of the class reviewing all the material that we've covered so far.

As you recall, we began this class by talking about language and its role in representational systems. Representational systems are our map of the world; they are how we see things, how we solve problems. We talked about how we develop our representational systems. Does anyone recall the three ways in which we learned this? Good; these are the ways we learn to construct our representational systems. We next explored language usage. We attempted to define our own personal modes or style of language use in thinking and communication. These

modes are individual differences in orientation. We identified two modes, feeling and thinking. Next we talked about well-formed sentences. Well-formed sentences are undistorted models, thinking and communication patterns that offer the entire richness of our experience. We looked at the processes of cause and effect and responsibility. Can anyone here define those two terms for me?

We next looked at Logical Semantic Relations. Logical Semantic Relations are the consistent judgments that native speakers make about the logical relations reflected in sentences of their language. One concept that we focused on was that of presuppositions. Presuppositions are distortions of experience and generally occur in two ways. The first is called "copping an attitude." Copping an attitude involves entering a situation with preconceived expectations that may not be warranted. The second type of presupposition we talked about was mind reading. Mind reading is an assumption that one can know what is in someone else's thinking and motivation without asking. Are there any questions about presuppositions?

We next looked at deletion transformations. Deletion transformations are generalizations and distortions that incompletely represent a situational experience. There are three types: deletion of definite elements, deletion of referential indices, and nominalizations. Can anyone define each of these for me?

Finally, we looked at three ways in which we can construct new representational systems. We looked at overlapping, matching, and did an exercise using pacing. Do you have any questions about these concepts? [Instructor should facilitate discussion of each of the above concepts as they are listed and should spend time tying the content units into a cohesive whole.]

OK, I've enjoyed having this time with you. We have looked at many different components of coping. It is time now for the final exam. Read the instructions to the final exam, and if you have any questions please raise your hand. When you are finished with the exam, you may leave. Good luck with your new coping skills.

APPENDIX I

MEDICAL SERVICE DEMAND INSTRUMENT (MSDI)

APPENDIX I

MEDICAL SERVICE DEMAND INSTRUMENT (MSDI)

Name _____ Age _____

M F
Sex

10 11 12 1 2 3 4
Educ. Level

Score C

MSDI - 1	MSDI - 2
R-	R-
UR-	UR-
T-	T-

Subjective Complaints

	Pre	Post
CNS		
Headache		
Dizziness		
Stroke		
Anxiety "nerves"		
Seizure disorder		
Loss of consciousness		
Insomnia		
Paralysis		
Respiratory		
Cough		
Wheezing		
Shortness of breath		
Congestion		
Cardiovascular		
Chest pain		
Palpitations		
Poor circulation		
Gastrointestinal		
Stomach pain--cramps		
Vomiting		
Diarrhea		
Constipation		
Bloating		
Loss of appetite		
Difficulty swallowing		
Indigestion, burning		
Blood in stool		
Mucous in stool		
Genito-urinary		
Impotence		
Frigidity		
Infertility		
Genital pain		
Pain with urination		
Excessive urination		
Nocturia		
Inability to urinate		

Genito-urinary (cont'd)	Pre	Post
Painful intercourse		
Menstrual abnormalities		
Breast tenderness/masses		
Skin		
Itching		
Rash		
Hair loss		
Bone and Joint		
Pain in joint		
Stiffness in joint		
Swelling		
Back pain		
Neck pain		
Special Senses		
Hearing loss		
Ringing in ears		
Visual disturbance		
Ear pain		
Numbness		
General		
Weight loss		
Fatigue		
Malaise		
Weakness		
Fever		
Other (Please fill in)		

APPENDIX J

COPING-SKILL INSTRUMENT

APPENDIX J

COPING-SKILL INSTRUMENT

On the following pages are a number of situations that you are likely to encounter in everyday living. As you read each situation, please imagine yourself in the situation as the main character. When you have the situation clearly in mind, think of how you are most likely to react. Then, in the space below the situation, write down your total reaction in specific detail. That is:

1. To report your most likely reaction, think only of how you yourself would actually react. There are no right or wrong answers. Base your answers on your knowledge of yourself as a person.

2. In describing your total reaction to each situation, please write down your thoughts and feelings in the situation, as well as your specific observable actions. These actions should include not only your immediate reactions but any future actions you might take.

3. In describing your actions, please write down not only what you would do, but also how you would go about doing it.

4. You may find it difficult to respond to some of the situations because they contain details that don't exactly fit you. If this happens, please use your imagination to place yourself in the situation.

With these instructions in mind, read the following sample situation and possible reaction. Then, begin the questionnaire and write, in detail, your thoughts, feelings, and actions to each situation.

Sample Situation and Reaction

It is two days after your birthday, and your spouse has completely forgotten about it. In previous years he/she has always remembered and celebrated with a present. This year, nothing. Please describe, in detail, your feelings, thoughts, and actions.

(The following should be handwritten but is typed here for clarity.)

I would feel rejected and sad about my spouse forgetting my birthday. I would think that my spouse didn't care about me anymore and didn't love me. I would try to find out if anything was wrong by asking my spouse what happened. If they were mad at me I would try to find out about what by asking if there was something I had done. If they weren't mad and had just forgotten, I would make it a point to remind them of my birthday next year, and would try to understand and forgive them for forgetting.

The value of this questionnaire will depend in large part upon how frank and honest you are in reporting your reactions to the situations. Your responses will be kept confidential, so please answer as clearly and honestly as possible.

1. You are 42 years of age and in reasonably good health. For the past several weeks you have been feeling tense, your shoulders feel tight, and your stomach just doesn't feel like it usually does. Last night you had a hard time falling asleep; you tossed and turned for a long time. Please describe, in detail, your feelings, thoughts, and actions.

2. You are 31 years of age, married for 6 years, with two children. The first three years of your marriage were very happy and satisfying. Recently, though, the routines and responsibilities of a spouse and family have ended up with you feeling sort of bored. One evening, after the children are in bed, your spouse informs you that she/he thinks that the marriage is in trouble and something had better change soon. Please describe, in detail, your feelings, thoughts, and actions.

3. You have been invited to dinner at a friend's house along with several other people. The evening has gone well; dinner was good and the other guests are friendly, all except one. Each time you talk with this person they disagree with everything you say. You have tried to stay away from topics that can be argued about, but this person leads you into arguments by asking a question and then disagreeing with what you say. Please describe, in detail, your feelings, thoughts, and actions.

4. You are 37 years old and have been working for a well-established company for 9 years. It is a good job, with moderate advances and raises, and a good benefit and pension plan. You are confident that you can work here until you retire. You have just received a call from a person who got your name from a friend. This person has offered you a job with a small, brand-new company, making quite a bit more money than you are presently making. You know that a lot of new companies don't make it. Please describe, in detail, your feelings, thoughts, and actions.

5. You are reasonably happy in the life you have been leading. You have several good friends and you enjoy yourself often. Friends and acquaintances often ask you for favors, and you rarely say no, so you usually agree to help. Lately, though, you have started to feel as though people are taking advantage of you. Please describe, in detail, your feelings, thoughts, and actions.

6. You have noticed over the past several weeks that your spouse has been acting very irritable. He/she complains about morning headaches and tiring very easily. Today, he/she told you that he/she had felt very dizzy and had to sit down. Please describe, in detail, your feelings, thoughts, and actions.

APPENDIX K

SCORING CRITERIA--COPING SKILLS

APPENDIX K

SCORING CRITERIA--COPING SKILLS

Effective

Search for information
Consider two or more alternatives
Consideration of values and needs
Evaluation of costs and risks of consequences
Consideration of constraints
Consideration of positive and negative aspects of alternatives
Making a plan
Using support systems
Recognition of own feelings
Provision of alternative ways of expression of feelings
Seeking clarification of feelings
Impact of behavior on others

Ineffective

Considering only one alternative
Seeking no new information
Considering no alternatives
Making no plan
No consideration of consequences
Not considering impact on others
Personal values and needs ignored
Constraints ignored
Withdrawing
Blaming
Analyzing
Humoring

APPENDIX L

MEDICAL DEMAND RATING SCALE

APPENDIX L

MEDICAL DEMAND RATING SCALE

The following symptoms represent a general survey of subjective complaints presented by patients. By your own judgment and experience, please rate each of the subjective complaints listed in terms of the role that stress and psychosomatic factors may play a part in their development. Rate the complaints by placing a check in the appropriate column as follows:

SA -- Strongly agree that the complaint has psychosomatic or stress involvement

A -- Agree that the complaint has psychosomatic or stress involvement

N -- Neutral

D -- Disagree that the complaint has psychosomatic or stress involvement

SD -- Strongly disagree that the complaint has psychosomatic or stress involvement

Thank you for your participation.

Subjective Complaints

	SA	A	N	D	SD
CNS					
Headache					
Dizziness					
Stroke					
Anxiety "nerves"					
Seizure disorder					
Loss of consciousness					
Insomnia					
Paralysis					
Respiratory					
Cough					
Wheezing					
Shortness of breath					
Congestion					
Cardiovascular					
Chest pain					
Palpitations					
Poor circulation					
Gastrointestinal					
Stomach pain--cramps					
Vomiting					
Diarrhea					
Constipation					
Bloating					
Loss of appetite					
Difficulty swallowing					
Indigestion, burning					
Blood in stool					
Mucous in stool					
Genito-urinary					
Impotence					
Frigidity					
Infertility					
Genital pain					
Pain with urination					
Excessive urination					
Nocturia					
Inability to urinate					

	SA	A	N	D	SD
Genito-urinary (cont'd)					
Painful intercourse					
Menstrual abnormalities					
Breast tenderness/masses					
Skin					
Itching					
Rash					
Hair loss					
Bone and Joint					
Pain in joint					
Stiffness in joint					
Swelling					
Back pain					
Neck pain					
Special Senses					
Hearing loss					
Ringing in ears					
Visual disturbance					
Ear pain					
Numbness					
General					
Weight loss					
Fatigue					
Malaise					
Weakness					
Fever					
Other (Please fill in)					

APPENDIX M

CLASSIFICATION OF PRESENTING PROBLEMS

APPENDIX M

CLASSIFICATION OF PRESENTING PROBLEMS

Presenting Problem	Mean Rating	Classification
Headache	4.22	R
Dizziness	4.33	R
Stroke	1.50	U
Anxiety "nerves"	4.77	R
Seizure disorder	2.66	N
Loss of consciousness	2.77	N
Insomnia	4.77	R
Paralysis	2.00	U
Cough	3.11	N
Wheezing	3.22	N
Shortness of breath	3.44	N
Congestion	3.22	N
Chest pain	3.66	R
Palpitations	3.88	R
Poor circulation	3.22	N
Stomach pain--cramps	4.22	R
Vomiting	3.11	N
Diarrhea	3.44	N
Constipation	3.88	R
Bloating	4.33	R
Loss of appetite	3.44	N
Difficulty swallowing	3.44	N
Indigestion, burning	3.77	R
Blood in stool	1.66	U
Mucous in stool	2.77	N
Impotence	4.44	R
Frigidity	4.66	R
Infertility	2.66	N
Genital pain	4.11	R
Pain with urination	2.88	N
Excessive urination	3.55	R
Nocturia	3.00	N
Inability to urinate	2.88	N
Painful intercourse	3.88	R
Menstrual abnormalities	3.11	N

Presenting Problem	Mean Rating	Classification
Breast tenderness/masses	2.77	N
Itching	4.11	R
Rash	3.11	N
Hair loss	3.44	N
Pain in joint	3.22	N
Stiffness in joint	3.00	N
Swelling	2.44	U
Back pain	4.33	R
Neck pain	4.33	R
Hearing loss	2.66	N
Ringing in ears	3.88	R
Visual disturbance	3.55	R
Ear pain	3.22	N
Numbness	3.88	R
Weight loss	3.11	N
Fatigue	4.44	R
Malaise	4.44	R
Weakness	4.33	R
Fever	1.88	U

Key: R = Related to stress
U = Unrelated to stress
N = Nondiscriminative

APPENDIX N

MSDI COMPARISON RATINGS

APPENDIX N

MSDI COMPARISON RATINGS

Symptom	Health Central		St. Lawrence		Sparrow		Ingham Medical	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Anxiety	4.78	.441	4.82	.405	5.00	.000	4.80	.447
Insomnia	4.78	.441	4.73	.467	4.70	.483	4.20	.447
Frigidity	4.67	.500	4.55	.522	4.60	.516	4.40	.547
Impotence	4.44	.726	4.64	.674	4.60	.516	4.20	.447
Fatigue	4.56	.527	4.45	.522	4.50	.527	4.20	.447
Malaise	4.33	.707	4.45	.522	4.30	.675	3.60	1.140
Dizziness	4.33	.707	3.91	.539	4.30	.483	3.60	1.140
Bloating	4.33	.707	3.45	.934	4.40	.699	4.00	.707
Back pain	4.33	.707	4.18	.603	4.50	.527	3.40	.894
Neck pain	4.33	.707	4.18	.603	4.40	.699	4.00	.000
Weakness	4.33	.707	4.18	.750	4.40	.516	3.40	1.140
Headache	4.22	.972	4.45	.522	4.60	.516	4.20	.447
Stomach pain	4.22	.441	4.18	.751	4.10	.316	3.80	.447
Genital pain	4.11	.782	3.82	.874	3.50	.850	3.20	.447
Itching	4.11	.601	4.18	.603	3.80	.633	3.80	.447
Palpitations	3.89	.601	4.27	.647	4.10	.568	3.60	.548
Constipation	3.89	.928	3.91	.701	3.70	.823	3.40	.894
Painful intercourse	3.89	.782	4.18	.751	3.90	.568	3.80	.447
Ringing in ears	3.89	.333	2.82	1.078	3.50	.972	2.80	.837
Numbness	3.89	.333	3.55	1.214	4.10	.876	3.60	.548
Indigestion	3.78	.833	3.64	.809	3.70	1.338	3.60	.894
Chest pain	3.67	.707	3.91	.944	4.00	.000	3.60	.548
Excessive urination	3.56	.527	3.09	1.136	3.30	1.059	3.20	1.095
Visual disturbance	3.56	.727	3.18	1.168	3.30	1.059	2.60	.894
Diarrhea	3.56	1.130	4.09	.943	3.30	.823	3.60	.894

Symptom	Health Central		St. Lawrence		Sparrow		Ingham Medical	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Shortness of breath	3.44	1.130	3.64	.924	3.30	1.159	3.40	.894
Loss of appetite	3.44	.727	4.18	.603	4.10	.568	4.20	.447
Difficulty swallowing	3.44	.727	3.36	.924	4.00	1.247	3.80	.447
Hair loss	3.44	.882	3.27	1.103	3.30	.949	2.80	.837
Wheezing	3.22	.833	3.82	.982	3.10	.876	3.60	.894
Congestion	3.22	.667	2.73	1.009	3.00	.667	2.20	.447
Poor circulation	3.22	.667	3.18	1.251	2.90	.887	2.00	.707
Pain in joint	3.22	.833	3.45	.688	3.10	.568	2.20	.447
Ear pain	3.22	.833	2.73	1.191	2.90	.734	2.40	.894
Vomiting	3.22	.972	3.73	1.104	3.30	.823	3.20	.838
Cough	3.11	.928	2.82	1.250	3.30	.483	3.00	.707
Menstrual abnormalities	3.11	.601	4.09	.701	3.40	.966	3.40	.548
Rash	3.11	.928	3.82	.603	3.10	.876	3.20	.837
Weight loss	3.11	1.054	4.18	.874	3.30	.483	4.00	.000
Nocturia	3.00	1.118	2.73	1.104	2.40	.843	3.40	.894
Stiffness in joint	3.00	.866	3.18	.982	2.80	.788	2.00	.000
Pain with urination	2.89	.928	2.73	1.009	2.60	.699	2.20	.447
Inability to urinate	2.89	.928	3.55	1.036	2.80	1.230	2.60	.894
Loss of consciousness	2.78	1.093	3.00	1.000	2.80	1.135	2.40	.548
Mucous in stool	2.78	1.202	3.18	1.251	3.20	1.135	3.40	1.517
Breast tenderness	2.78	.667	3.00	1.342	2.80	1.135	1.80	.837
Infertility	2.78	1.202	3.27	1.104	2.00	.943	2.40	.894
Seizure disorder	2.66	1.225	3.00	1.000	2.10	1.101	2.00	.707
Hearing loss	2.55	.882	2.55	1.128	2.60	1.174	2.00	.000
Swelling	2.44	.727	2.82	.982	2.40	.516	2.00	.000
Paralysis	2.00	1.118	2.45	1.245	2.70	1.338	1.40	.548
Fever	1.89	.782	2.45	1.128	1.90	.876	1.60	.548
Blood in stool	1.67	.500	3.00	1.414	2.10	1.101	2.60	1.140
Stroke	1.56	.527	2.91	1.221	1.90	.994	2.60	.894

APPENDIX O

STRUCTURED EXERCISES

APPENDIX O

STRUCTURED EXERCISES

Self-Perceptions

	REAL SELF	HOW OTHERS SEE ME	IDEAL SELF
cheerful			
persistent			
noisy			
responsible			
absent-minded			
restless			
demanding			
snobbish			
frank			
honest			
excitable			
immature			
courageous			
self-pitying			
ambitious			
calm			
individualistic			
serious			
friendly			
mature			
artistic			
intelligent			
humorous			
idealistic			
understanding			
warm			
relaxed			
sensitive			
sexy			
active			
lovable			
selfish			
shrewd			
affectionate			
opinionated			

SCALE 1-5

STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
1	2	3	4	5

Atomic Bomb Shelter

The following 15 persons are in an atomic bomb shelter. An atomic attack has occurred. These 15 persons are the only humans left alive on the earth. It will take two weeks for the external radiation level to drop to a safe survival level. The food and supplies in the shelter can sustain, at a very minimum level, seven persons for two weeks. In brief, only seven persons can minimally survive. It is the task of your group to decide the seven persons who will survive. The group decision must be not only a consensus, but also must be unanimous.

1. Dr. Dane--39, white, religion--no affiliation. Ph.D. in History, college prof., good health, married--1 child (Bobby), active in community.

2. Mrs. Dane--33, white, Jew, AB and MA in Psych., counselor in mental health clinic, good health, married--1 child (Bobby), active in community.

3. Bobby Dane--10, white, Jew, Special Ed. classes for 4 years, mentally retarded, I.Q. 70, good health, enjoys his pets.

4. Mrs. Garcia--33, Spanish-American, Roman Catholic, 9th grade education, cocktail waitress, prostitute, good health, married at 16, divorced at 18, abandoned as child, in foster home, attacked by foster father at age 12, ran away from home, returned to reformatory, stayed 'til 16, 1 child--3 weeks old (Jean).

5. Jean Garcia--3 weeks old, Spanish-American, good health, nursing for food.

6. Mrs. Evans--32, Negro Protestant, BA and MA in Elementary Ed., teacher, divorced, 1 child (Mary), good health, cited as outstanding teacher, enjoys working with children.

7. Mary Evans--8, Negro, Protestant, 3rd grade, good health, excellent student.

8. John Jacobs--13, white, Protestant, 8th grade, honor student, very active, broad interests, father is Baptist minister, good health.

9. Mr. Newton--25, Negro, claims to be an atheist, starting last year of medical school, suspended, homosexual activities, good health, seems bitter concerning racial problems, wears hippy clothes.

10. Mrs. Clark--28, Negro, Protestant, college grad., Engineering, electronics engineer, married, no children, good health, enjoys outdoor sports and stereo equipment, grew up in ghetto.

11. Sister Mary--27, nun, college grad., English major, grew up in upper-middle-class neighborhood, good health, father a businessman.

12. Mr. Blake--51, white, Mormon, HS grad., mechanic "Mr. Fix-it," married, 4 children, good health, enjoys outdoors and working in shop.

13. Miss Harris--21, Spanish-American, Protestant, college senior, nursing major, good health, enjoys outdoor sports, likes people.

14. Father Franz--37, white, Catholic, college, priest, active in civil rights, criticized for liberal views, good health, former college athlete.

15. Dr. Gonzales--66, Spanish-American, medical doctor, general practitioner, has had two heart attacks in past five years but continues to practice.

Values Auction

Another way to find out what you value is to engage in a "values auction." It is one thing to sit down calmly and objectively state what you feel is important to you. It is also quite revealing to find out what you value in a more pressured situation. The principle is like the old "there are no atheists in foxholes" concept.

Your seminar leader will help you fill out the auction sheet and lead you through it. You should find this fun, as well as a learning experience.

VALUES AUCTION

	Amount I Budgeted	Highest Am't I bid	Top Bid?
A satisfying & fulfilling marriage			
Freedom to do what you want			
A chance to direct the destinies of a nation			
The love & admiration of friends			
Travel & tickets to any cultural or athletic event as often as you wish			
Complete self-confidence with a positive outlook on life			
A happy family relationship			
Recognition as the most attractive person in the world			
A long life free of illness			
A complete library for your private use			
A satisfying religious faith			
A month's vacation with nothing to do but enjoy yourself			
Lifetime financial security			

	Amount I Budgeted	Highest Am't I bid	Top Bid?
A lovely home in a beautiful setting			
A world without prejudice			
A chance to eliminate sickness and poverty			
International fame & popularity			
An understanding of the meaning of life			
A world without graft, lying or cheating			
Freedom within your work setting			
A really good love relationship			
Success in your chosen profession or vocation			

REFERENCES

REFERENCES

Aberle, D. F. Introducing preventive psychiatry into a community. Human Organization, Fall 1950.

Ahler, H. A. Coping, defensive, and socially desirable responses. Psychological Reports, 1968, 22, 985-988.

Anastasi, A. Psychological testing. New York: Macmillan, 1968.

Arnheim, R. Visual thinking. London: Faber, 1969.

Arnkoff, D., & Stewart, J. The effectiveness of modeling and videotape feedback on personal problem solving. Behavioral Research and Therapy (Great Britain), 1975, 13.

Arnold, M. B. (Ed.). The nature of emotion: Selected readings. London: Penguin Books, 1968.

Bakker, C. B., & Armstrong, H. E. The adult development program: An educational approach to the delivery of mental health services. Hospital and Community Psychiatry, 1975, 27(5).

Bandler, R., & Grinder, J. The structure of magic (Vol. 1). Calif.: Science & Behavior Books, 1975.

Bandler, R., & Grinder, J. The structure of magic (Vol. 2). Calif.: Science & Behavior Books, 1976.

Bandura, A. Psychotherapy as a training process. Psychological Bulletin, 1961, 58(2), 143-159.

Bart, W. M. Piagetian cognitive theory and adult education--A perspective for research. Paper presented at the 1977 Adult Education Research Conference Meeting, Minneapolis, 1977.

Benedict, R. Patterns of culture. Massachusetts: Riverside, 1934.

Berlin, I. N. Resistance to change in mental health professionals. American Journal of Orthopsychiatry, 1969, 39(1), 109-115.

Bettis, M. D. Mental health...growth...and your national association. Mental Hygiene, 1968, 52, 190-196.

Bevon, W. The concept of adaptation in modern psychology. Journal of Psychology, 1965, 59, 73-93.

Borg, W. R., & Gall, M. D. Educational research. New York: McKay, 1963.

Bower, E. M. Primary prevention of mental and emotional disorders: A conceptual framework and action possibilities. American Journal of Orthopsychiatry, 1963, 33, 832-848.

Broshowski, A., & Baker, F. Professional, organizational, and social barriers to primary prevention. American Journal of Orthopsychiatry, 1974, 44(5).

Bruner, J. S. On knowing: Essays for the left hand. Massachusetts: Belknap Press, 1964.

Bruner, J. S. Toward a theory of instruction. Massachusetts: Belknap Press, 1966.

Bruner, J. S., Goodnow, J. J., & Austin, G. A. A study of thinking. New York: Wiley, 1956.

Bruner, J. S., Oliver, R. R., & Greenfield, P. M. Studies in cognitive growth. New York: Wiley, 1966.

Cabush, D. W., & Edward, K. J. Training clients to help themselves: Outcome effects of training college student clients in facilitative self-responding. Journal of Counseling Psychology, 1976, 23(1), 34-39.

Cain, A. C. The perils of prevention. American Journal of Orthopsychiatry, 1967, 37(4), 640-642.

Cameron, Bandler, L. They lived happily ever after. Calif.: Meta, 1978.

Campbell, D. T., & Stanley, J. C. Experimental and quasi-experimental designs for research. Chicago: Rand McNally, 1963.

Campbell, R. J., Kagan, N., & Krathwohl, D. R. The development and validation of a scale to measure affective sensitivity (empathy). Journal of Counseling Psychology, 1971, 18(5), 407-412.

Cantor, L., & Heffat, L. Training for affective education: A model for change in the schools. Journal of Clinical and Child Psychology, Fall 1976.

Caplan, G. A public health approach to child psychiatry. Mental Health, 1951, 235-249.

Caplan, G. An approach to community mental health. New York: Grune & Stratton, 1961.

Caplan, G. Principles of preventive psychiatry. New York: Basic Books, Inc., 1964.

Carkhuff, R. R. The development of systematic human resource development models. The Counseling Psychologist, 1972, 3(3), 4-11. (a)

Carkhuff, R. R. New directions in training for the helping professions: Toward a technology for human and community resource development. The Counseling Psychologist, 1972, 3(3), 12-30. (b)

Carkhuff, R. R., & Anthony, W. A. The skills of helping. Massachusetts: Human Resources Development, 1979.

Carkhuff, R. R., & Berenson, B. S. Beyond counseling and psychotherapy. New York: Holt, Rinehart, & Winston, 1967.

Chomsky, N. Syntactic structures. The Hague: Mouton, 1957.

Chomsky, N. Aspects of the theory of syntax. Cambridge, Mass.: MIT, 1965.

Cobb, S., Kosl, S., Chen, E., & Christenfeld, R. Some psychological and social characteristics of patients hospitalized for rheumatoid arthritis, hypertension, and duodenal ulcer. Journal of Chronic Diseases, 1965, 18, 1259-1278.

Coleman, J. V., & Patrick, D. L. Integrating mental health services into primary medical care. Medical Care, 1976, 14,

Contoni, L. Family life education. Child Welfare, 1975, 54(9).

Corney, R. T., & Roback, H. B. Life stress and psychiatric clinic referral. Southern Medical Journal, 1976, 69(2).

Costell, R. M., & Leiderman, P. H. Psychophysiological concomitants of social stress: The effects of conformity pressure. Psychosomatic Medicine, 1968, 30(3).

Courts, F. Psychological Statistics. Illinois: Dorsey, 1966.

Dalzell-Ward, A. S. The new frontier of preventive medicine. Public Health (London, England), 1976, 90, 101-109.

D'Angelli, A., Deyss, C., Guerney, B., Hershenberg, B., & Sharofsky, S. Interpersonal skill training for dating couples. Journal of Counseling Psychology, 1974, 21(5), 385-389.

Danish, S. J., & Kagan, N. Measurement of affective sensitivity: Toward a valid measure of interpersonal perception. Journal of Counseling Psychology, 1971, 18(1), 51-54.

Davis, R. H., Alexander, L. T., & Yelon, S. L. Learning system design: An approach to the improvement of instruction. New York: McGraw-Hill, 1974.

Desse, J., & Hulse, S. The psychology of learning. New York: McGraw-Hill, 1967.

Dilley, J., Lee, J. L., & Verrill, E. L. Is empathy ear-to-ear or face-to-face. Personality and Guidance Journal, 1971, 50(3).

DiMascio, A., Boyd, R. W., & Greenblatt, M. Physiological correlations of tension and antagonism during psychotherapy: A study of "interpersonal physiology." Psychosomatic Medicine, 1957, 19(2).

Duffy, E. Activation and behavior. New York: Wiley, 1962.

Ekman, P. Darwin and facial expression. New York: Academic Press, 1973.

Ekman, P., & Friesen, W. V. Emotion in the human face. New York: Pergamon Press, 1972.

Erickson, J. R., & Jones, M. R. Thinking. Annual Review of Psychology, 1978, 29, 61-90.

Farber, I. E. The things people say to themselves. American Psychologist, 1976, 31, 185-197.

Farnsworth, D. L. The provision of appropriate treatment: Hospital and community collaboration. Mental Hospitals, 1961, 12(18).

Feldman, S. (Ed.). Cognitive consistency. New York: Academic, 1966.

Fenichel, O. The psychoanalytic theory of neuroses. New York: Norton, 1945.

Festinger, L. A theory of cognitive dissonance. New York: Row Peterson, 1957.

Freud, A. The ego and mechanisms of defense. London: Hogarth, 1937.

Freud, A. Normality and pathology in childhood. New York: International University Press, 1965.

Freud, A. The writings of Anna Freud (Vol. 5). New York: International University Press, 1969.

Freud, S. Complete works (Vol. 7) (Std. ed.). London: Hogarth, 1953.

Frisco, R. Mental health elective. School Health Review, 1974, 5, 20-21.

Gagne, R. M. The conditions of learning. New York: Holt, Rinehart, & Winston, 1970.

Gelman, R. Cognitive development. Annual Review of Psychology, 1978, 29,297-332.

Gladstein, G. Is empathy important in counseling? Personality and Guidance Journal, 1970, 48(10).

Goldensohn, S. S. Cost, utilization, and utilization review of mental health services in a prepaid group practice plan. American Journal of Psychiatry, 1977, 134(11).

Goldstein, M. J., & Adams, J. N. Coping style and behavioral response to stress. Journal of Experimental Research in Personality, 1967, 2, 239-251.

Golightly, C. L. The James-Lange theory: A logical postmortem. Philosophy of Science, 1953, 20, 286-299.

Gordon, T. Teacher effectiveness training. New York: Wyden, 1974.

Goroen, J. J. Psychosomatic research. New York: Pergamon Press, 1964.

Grossman, S. P. The biology of motivation. Annual Review of Psychology, 1979, 30, 209-242.

Gruenberg, E. M. The prevention of mental disease. Annals of American Academy of Political Science, 1953, 286, 158-167.

Guerney, B., & Stollak, G. Problems in living, psychotherapy process research, and an autoanalytic method. Journal of Consulting Psychology, 1965, 29(6), 581-585.

Guerney, B., Stollak, G., & Guerney, L. The practicing psychologist as educator--An alternative to the medical practitioner model. Professional Psychology, 1971, 2, 276-282.

Gurin, G., Vernoff, J., & Feld, S. Americans view their mental health. New York: Basic Books, 1960.

Haan, N. Proposed model of ego functioning: Coping and defensive mechanisms in relationship to I.Q. change. Psychological Monographs: General and Applied, 1963, 77(8), 571.

Haan, N. Coping and defense mechanisms related to personality inventories. Journal of Consulting Psychology, 1965, 29(4), 373-378.

Haber, R. N. Visual perception. Annual Review of Psychology, 1978, 29, 31-59.

Halle, M., Bresnan, J., & Miller, G. Linguistic theory and psychological reality. Cambridge, Mass.: MIT, 1978.

Hamburg, D. N., & Adams, J. E. A perspective on coping behavior. Archives of General Psychiatry, 1967, 17.

Hartmann, H. Ego psychology and the problem of adaptation. New York: International University Press, 1958.

Hartman, J. J. Small group methods of personal change. Annual Review of Psychology, 1977, 30, 453-476.

Hinds, W., James, M., Gieszer, M., & Jacobs, B. A survival manual for the drug center volunteer. Lansing, Mich.: Governor's Office of Drub Abuse and Alcoholism, 1972.

Hinkle, J., & Moore, M. A student couples program. Family Coordination, April 1971, 153-158.

Hinkle, L., & Wolff, H. G. The nature of man's adaptation to his total environment and the relation of this to illness. Archives of Internal Medicine, 1957, 99, 442-460.

Huck, S. W. Using a repeated measures ANOVA to analyze the data from a pretest-posttest design: A potentially confusing task. Psychological Bulletin, 1975, 82(4), 511-518.

Izard, C. E. Human emotions. New York: Plenum Press, 1977.

Jackson, P. H. Verbal solutions to parent-child problems. Child Development, 1956, 27, 339-349.

Jacobs, M. P., Muller, J. J., Eisman, H. D., Knitzner, J., & Spilhen, A. The assessment of change in distress level and styles of adaptation as a function of psychotherapy. Journal of Nervous and Mental Disease, 1968, 145(5), 392-404.

Jacobson, E. Biology of emotions. Springfield, Ill.: Charles C. Thomas, 1967.

Janis, I., & Mann, L. Decision making. New York: Free Press, 1975.

Jenkins, D. C. Psychologic and social precursors of coronary disease. The New England Journal of Medicine, 1971, 284(5).

John, R. E., & Schwartz, E. The neurophysiology of information processing and cognition. Annual Review of Psychology, 1978, 29, 1-29.

Johnson, D. M. Systematic introduction to the psychology of thinking. New York: Harper & Row, 1972.

Just, M. R., Bell, C. S., Fisher, W., & Schensul, S. L. Coping in a troubled society. Massachusetts: Lexington Books, 1974.

Kagan, N. Influencing human interaction. East Lansing: Michigan State University Press, 1972.

Kagan, N., Krathwohl, D. R., & Farquhar, W. W. Interpersonal process recall: Stimulated recall by videotape in exploratory studies of counseling and teaching-learning. NDEA Title VII, Grant #OE-7-32-0410-216. East Lansing: Michigan State University, 1965.

Kagan, N., Krathwohl, D. R., Goldber, A., Campbell, R., Schauble, P., Greenber, D., Danish, S., Resnickoff, A., Bowes, J., & Bondy, S. Studies in human interaction: Interpersonal process recall stimulated by videotape. East Lansing: Michigan State University Educational Publication Service, 1967.

Kane, R. (Ed.). New health practitioners. DHEW Pub. # (NIH), 75-875.

Kaywin, L. Notes on the psychology and theory of affect. Annual Review of Psychology, 1966, 53(2), 275-282.

Klein, D. C. The prevention of mental illness. Mental Hygiene, 1961, 45, 101-109.

Kraft, I. Preventing mental ill health in early childhood. Mental Hygiene, 1964, 48(3), 413-423.

Kress, J. R., & Singer, J. HMO handbook. Maryland: Aspen Systems, 1975.

Kuriloff, P., & Rindner, M. How psychological education can promote mental health with competence. Counselor Education and Supervision, 1975.

Lawrence, D. H., & Festinger, L. Deterrents and reinforcement. Stanford: Stanford University Press, 1962.

Lazarus, R. A laboratory approach to the dynamics of psychological stress. American Psychologist, 1964, 19(6), 400-411.

Lazarus, R. Emotions and adaptation: Conceptual and empirical relations. Paper presented at the Nebraska Symposium, April 11-12, 1968.

Lazarus, R., & Alfert, E. Short-circuiting of threat by experimentally altering cognitive appraisal. Journal of Abnormal and Social Psychology, 1964, 69(2), 195-205.

Lazarus, R., Opton, E., Nomikos, M., & Rankin, N. The principle of short-circuiting of threat--Further evidence. Journal of Personality, 1965, 33(4), 622-635.

Lerner, P. Correlation of social competence and level of cognitive perceptual functioning in male schizophrenics. Journal of Nervous and Mental Disease, 1968, 146(5), 412-416.

London, P. The modes and morals of psychotherapy. New York: Holt, Rinehart, & Winston, 1964.

Long, B. E. Affective education and clinical child psychology. Journal of Clinical Child Psychology, Fall 1976.

Lorish, C. Can HMO's improve health care for the poor. Health and Social Work, 1976, 1(2).

Loveless, E. S., & Brody, H. M. The cognitive base of psychotherapy. Psychotherapy: Theory, research and practice, 1974, 14(2), 133-137.

Lum, D. The social service health specialist in an HMO. Health and Social Work, 1976, 1(2).

Mahler, M. S. On human symbiosis and the vicissitudes of individuation. New York: International University Press, 1968.

Maksondian, Y. L. Probability and statistics with applications. Pennsylvania: International Textbooks, 1969.

Malmo, R., Boag, T., & Smith, A. Physiological study of personal interaction. Psychosomatic Medicine, 1957, 19(2).

Marascuilo, J., & Levin, J. R. Post hoc analysis of repeated measures interactions and gain scores: Whither the inconsistency? Psychological Bulletin, 1977, 84(2).

Marascuilo, L., & Serlin, R. Interactions for dichotomous variables in repeated measure designs. Psychological Bulletin, 1977, 84(5).

Martin, I. Adaptation. Psychological Bulletin, 1964, 61(1), 35-44.

Mason, J. W. Psychological influences on the pituitary-adrenal cortical system. Rec. Program Hormonal Research, 1959, 15, 345-389.

Mehrens, W., & Lehmann, I. Measurement and evaluation in education and psychology. New York: Holt, Rinehart, & Winston, 1969.

Meichenbaum, D., & Cameron, R. The clinical potential of modifying what clients say to themselves. Psychotherapy: Theory, Research and Practice, 1974, 14(2), 103-117.

Meichenbaum, D., & Goodman, J. Training impulsive children to talk to themselves. Journal of Abnormal Psychology, 1971, 77(2), 115-126.

Melton, A. W. Categories of human learning. New York: Academic Press, 1964.

Mendenhall, W. The design and analysis of experiments. Belmont, Calif.: Wadsworth, 1968.

Michelson, D., & Stevic, R. Differential effects of facilitative and nonfacilitative behavioral counselors. Journal of Counseling Psychology, 1971, 10(4), 314-319.

Miller, B. Acquisition of a specified verbal response set among counselor trainees. Journal of Counseling Psychology, 1969, 16(4), 314-316.

Moos, R., & Kiritz, S. Physiological effects of social environment. Psychosomatic Medicine, 1974, 36(2).

Moos, R., Sidle, A., Adams, J., & Cady, P. Development of a coping scale. Archives of General Psychiatry, 1969, 20(2), 226-232.

Mueller, D. Some origins of psychology as science. Annual Review of Psychology, 1979, 30, 9-29.

Muller, D. The external provision of health maintenance organization mental health services. American Journal of Psychiatry, 1978, 135(6).

Murphy, G. The prevention of mental disorder: Some research suggestions. Journal of Hillside Hospital, 1960, 9, 131-146.

Murphy, L., & Frank, C. Prevention: The clinical psychologist. Annual Review of Psychology, 1979, 30, 173-207.

Nangeroni, A. Social action in preventive psychiatry. Canada's Mental Health, 1968, 16, 19-24.

Newell, A., & Simon, H. A. Human problem solving. Englewood Cliffs, N.J.: Prentice-Hall, 1972.

Novis, E., & Larsen, J. Critical issues in mental health service delivery: What are the priorities? Hospital and Community Psychiatry, 1976, 27(8), 561-565.

Nowlin, J., Eisdorfer, C., Bogdonoff, M., & Nichols, C. Physiologic response to active and passive participation in a two-person interaction. Psychosomatic Medicine, 1968, 30(1).

Nunnally, J. Popular concepts of mental health. New York: Holt, Rinehart, & Winston, 1961.

Offer, D., & Sabshin, M. Normality. New York: Basic Books, 1966.

Ohlson, L., & Engin, A. Structured approach to marital counseling. Journal of Family Counseling,

Osberg, J. The preventive community, some notions about the prevention of mental and social disorder. Canadian Journal of Public Health, 1964, 55(12), 535, 539.

Parkes, M., Benjamin, B., & Fitzgerald, P. Broken heart: A statistical study of increased mortality among widowers. British Medical Journal, 1969, 1, 740-743.

Paxageorgis, D. Prevention and treatment in mental health communication. Public Opinion Quarterly, 1965, 29, 107-119.

Payne, P., Weiss, S., & Kapp, R. Didactic, experimental, and modeling factors in the learning of empathy. Journal of Counseling Psychology, 1972, 19, 425-429.

Phillips, L., & Browerman, I. Social competence and psychiatric diagnosis. Journal of Abnormal Psychology, 1966, 71(3), 209-214.

Piaget, J. Intellectual evaluation from adolescence to adulthood. Human Development, 1972, 15, 1-12.

Plutchik, R. The emotions: Facts, theories, and a new model. New York: Random House, 1962.

Plutchik, R. Emotions as adaptive reactions: Implications for therapy. Psychoanalytic Review, 1966, 53(2), 269-274.

Poor, D. Analysis of variance for repeated measures designs: Two approaches. Psychological Bulletin, 1973, 80(3).

Powell, G., Bresel, J., & Blizzard, R. Emotional deprivation and growth retardation simulating idiopathic hypopituitarism. The New England Journal of Medicine, 1967, 276(23).

Rapaport, D. On the psychoanalytic theory of affects. The International Journal of Psychoanalysis, 1953, 35(Part 3).

Rapaport, D. Emotions and memory. New York: International University Press, 1967.

Rimm, D., & Masters, J. Behavior therapy: Techniques and empirical findings. New York: Academic Press, 1974.

Rittelmeyer, L., & Flynn, W. Psychiatric consultation in a health maintenance organization: A model for education in primary care. American Journal of Psychiatry, 1978, 135(9).

Rosenwald, G. Personality description from the viewpoint of adaptation. Psychiatry, 1968, 31(1), 16-31.

Ryan, W. Community care in historical perspective. Canada's Mental Health, 1969 (17, Supplement #60), 8.

Sabin, J. Research findings on chronic mental illness: A model for continuing care in the health maintenance organization. Comprehensive Psychiatry, 1978, 19(1).

Schachter, S., & Singer, J. Cognitive, social and physiological determinants of emotional state. Psychoanalytic Review, 1962, 69(5), 379-399.

Schofield, W. The psychologist as a health professional. Professional Psychology, 5-7, 2-76.

Schofield, W. Role of psychologist in health services. American Psychologist, 1969, 24, 565-584.

Schwartz, E., & Jahn, E. R. The neurophysiology of information processing and cognition. Annual Review of Psychology, 1978, 29, 1-25.

Simon, H. Information processing models of cognition. Annual Review of Psychology, 1979, 30, 363-396.

Simon, H., & Newell, A. Human problem solving. Englewood Cliffs, N.J.: Prentice-Hall, 1972.

Simpson, E. The growth of confluent education. Journal of Clinical and Child Psychology, Fall 1976.

Slakter, M. Statistical inference for educational researchers. London: Addison-Wesley, 1972.

Smith, R., Sarason, I., & Sarason, B. Psychology: The frontiers of behavior. New York: Harper & Row, 1978.

Solso, R. L. (Ed.). Theories in cognitive psychology: The Loyola symposium. New York: Wiley, 1974.

Stollak, G. E., & Kallman, J. R. Maternal behavior toward children in need-arousing situations. Paper presented at the 1974 Mid-western Psychological Association Meeting, Chicago, 1974.

Stone, G., Hinds, W., & Schmidt, G. Teaching mental health behaviors to elementary school children. Professional Psychology, February 1975.

Strauss, J. Social and cultural influences on psychopathology. Annual Review of Psychology, 1979, 30, 397-415.

Sundberg, N., Snowden, L., & Reynolds, W. Toward assessment of personal competence and incompetence in life situations. Annual Review of Psychology, 1978, 29, 179-221.

Sundel, M., & Schanie, C. Community mental health and mass media preventive education. Social Service Review, June 1978.

Swisher, J. Mental health--The core of preventive health education. Journal of School Health, 1976, 46(7).

Teyber, E. C., Messe, L. A., & Stollak, G. E. Adult responses to child communications. Child Development, 1977, 48, 1577-1582.

Tomkins, S. Consciousness, imagery, and affect (Vol. 1). New York: Springer, 1962.

Tomkins, S., & Izard, C. Affect, cognition, and personality--Empirical studies. New York: Springer, 1965.

Tomkins, S., & McCorten, R. What and where are the primary affects? Some evidence for a theory. Perceptual and Motor Skills, 1964, 18 (Monograph Supplement 1-VIV), 119-158.

Truax, C., & Carkhuff, R. Toward effective counseling and psychotherapy training and practice. Chicago: Aldine, 1967.

Truax, C., Carkhuff, R., & Dowds, J. Toward an integration of the didactic and experimental approaches to training in counseling and psychotherapy. Journal of Counseling Psychology, 1964, 2(3).

U.S. Department of Health, Education, and Welfare. Coping and adaptation: A behavioral sciences bibliography. NIMH, Public Health Services Publication #2087, 1970.

U.S. Department of Health, Education, and Welfare. Planning a creative change in mental health services: A distillation of principles on research utilization (Vol. 2). Pub. #(HSM) 71-9061.

U.S. Department of Health, Education, and Welfare. Inclusion of mental health services in health maintenance and related organizations. DHEW Pub. #(HSA) 75-13019.

U.S. Department of Health, Education, and Welfare. Obstacles in the pathways to prepaid mental health care. DHEW Pub. #(ADM) 76-383, 1977.

Van Antwerp, M. Primary prevention: A challenge to mental health associations. Mental Hygiene, 1970, 54(3), 453-456.

Van Antwerp, M. The route to primary prevention. Community Mental Health Journal, 1971, 7(3), 183-188.

Van Heijningen, J., & Treurniet, N. Psychodynamic factors in acute myocardial infarction. International Journal of Psychoanalysis, 1966, 47, 370.

Vayda, A., & Perlmutter, F. Primary prevention in community mental health centers: A survey of current activity. Community Mental Health Journal, 1977, 13(4).

Vitalo, R. Effects of facilitative interpersonal functioning in a conditioning paradigm. Journal of Counseling Psychology, 1970, 17(2), 141-144.

Walker, H., & Lev, J. Statistical inference. New York: Holt, 1953.

Walton, E., & Russell, R. Affective mental health education with sight and sound. Journal of School Health, Jan. 1978, 661-667.

Weinstack, A. Family environment and the development of defense and coping mechanisms. Journal of Personality and Social Psychology, 1967, 5(1), 67-75.

White, R. Motivation reconsidered: The concept of competence. Psychological Review, 1959, 66(5).

Whitely, J. A method for assessing adaptive ego functioning using the thematic apperception test. The Journal of Experimental Education, 1966, 34(3), 1-21.

Wickelgren, W. A. Cognitive psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1979.

Williams, R., Kimball, C., & Williard, H. The influence of interpersonal interaction on diastolic blood pressure. Psychosomatic Medicine, 1973, 34(3).

Williams, R., & Ozarin, L. Community mental health, An international perspective. San Francisco: Jossey-Bass, 1968.

Winer, B. J. Statistical principles in experimental design. New York: McGraw-Hill, 1971.

Winokur, D. Does anybody really need psychotherapy? Consequences for retaining a mental illness model. Psychotherapy: Theory, Research, and Practice, 1973, 10(1).

Witkin, H., Goodenough, D., & Karp, S. Stability of cognitive style from childhood to young adulthood. Journal of Personality and Social Psychology, 1967, 7(3), 291-300.