

STRESS CONTROL: IT CAN BE LEARNED

by

Gesele Lajoie

B.Ed. University of British Columbia, 1974

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF ARTS (EDUCATION)

in the Faculty

of

Education

© Gesele Lajoie, 1984

SIMON FRASER UNIVERSITY

February 1984

All rights reserved. This work may not be reproduced in whole or in part, by photocopy or other means, without permission of the author.

## APPROVAL

Name: Gesele Lajoie  
Degree: Master of Arts (Education)  
Title of Thesis: Stress Control: It Can Be Learned  
Examining Committee  
Chairperson: M. Zola

B. A. Hiebert  
Senior Supervisor

R. W. Marx  
Associate Professor

A. w. hayduk  
Associate Professor  
Instructional Development  
Athabasca University  
Edmonton, Alberta  
External Examiner

Date approved

09/03/84

PARTIAL COPYRIGHT LICENSE

I hereby grant to Simon Fraser University the right to lend my thesis, project or extended essay (the title of which is shown below) to users of the Simon Fraser University Library, and to make partial or single copies only for such users or in response to a request from the library of any other university, or other educational institution, on its own behalf or for one of its users. I further agree that permission for multiple copying of this work for scholarly purposes may be granted by me or the Dean of Graduate Studies. It is understood that copying or publication of this work for financial gain shall not be allowed without my written permission.

Title of Thesis/Project/Extended Essay

STRESS CONTROL: IT CAN BE LEARNED

---

---

---

---

Author:

(signature)

Gesele Lajoie

(name)

March 9, 1984

(date)

**ABSTRACT**

Evidence suggests that the incidence of stress-related disorders is increasing in our society to the point that in 1976, stress surpassed the common cold as the country's most prevalent health problem. This statistic indicates that growing numbers of people are coping less effectively with the daily situations which cause them stress. Recently, the effects of stress within the education system have become more noticeable. Reports suggest that not only is stress affecting teachers and teaching, but also that increasing numbers of students are experiencing stress-related disorders.

Although the 1980 British Columbia Physical Education Curriculum Guide includes a unit on stress and relaxation that is to be taught at the junior and senior levels, specific stress units are rarely taught, primarily due to a lack of resource material.

This five-part handbook was designed to remedy the situation by providing material for teaching preventive stress management. Part I outlines theories and related research. This section provides the terminology and background necessary for understanding stress. Part II reviews some procedures that can be used to evaluate personal stress. It includes a list of signs of chronic stress and a description of two methods of self-monitoring that can be used for stress control. Part III overviews the techniques that can be "used-as-required" or "used continuously" for stressor and stress management purposes. Part IV elaborates the stressor management strategies that can be used in situations where some environmental control is possible. The goal of all stressor management strategy is to change the situation, to reduce the pressure. Part V describes the stress management strategies, which can be used in situations that are difficult or

impossible to change. The goal of all stress management procedures is to change the reaction to a given situation so the reaction is less stressful, even though the situation per se remains unchanged.

### ACKNOWLEDGEMENTS

In the process of completing this project, many people have aided me by contributing time, knowledge, and support. I would like to extend my appreciation to the members of my committee, Dr. Bryan Hiebert and Dr. Ronald Marx. Special thanks needs to be given to Dr. Hiebert for sharing his research and for his constant encouragement and support. I would also like to recognize the Coquitlam School District for providing the time necessary to compile resource materials. Finally, I want to express my thanks to Marilyn Hermansen, Gloria Moor, John Kerr, and Gordon Peachey for the help they provided in the preparation of this work. Gordon Peachey's many revisions with the word processor were invaluable for the final outcome. I sincerely hope that all concerned recognize how much their assistance was appreciated.

## TABLE OF CONTENTS

		page
<b>PRELIMINARY</b>	<b>APPROVAL.....</b>	ii
	<b>ABSTRACT.....</b>	iii
	<b>ACKNOWLEDGEMENTS.....</b>	v
	<b>TABLE OF CONTENTS.....</b>	vi
	<b>LIST OF TABLES.....</b>	ix
	<b>LIST OF FIGURES.....</b>	x
<b><u>PART I    THEORY AND RELATED RESEARCH</u></b>		
<b>CHAPTER 1</b>	<b>INTRODUCTION</b>	2
	What is Stress?.....	3
	Effects of Stress on the Body.....	3
	What Causes Stress?.....	4
	Controlling Stress.....	5
	Stressor Management.....	6
	Stress Management.....	7
	Behavioral Approaches.....	7
	Cognitive Approaches.....	8
	Physiological Approaches.....	9
	Organization of the Handbook.....	9
<b>CHAPTER 2</b>	<b>UNDERSTANDING STRESS</b>	11
	Key Concepts.....	12
	Stress.....	12
	Demand.....	13
	Degree of Coping.....	14
	Perception.....	15
	Pressure, Stressor and Stress.....	15
	Transitory and Chronic Stress.....	16
	Summary.....	18
<b>CHAPTER 3</b>	<b>EFFECTS OF STRESS ON THE BODY</b>	20
	Stress Reaction.....	20
	Alarm Reaction.....	20
	Stage of Resistance.....	22
	Stage of Exhaustion.....	23
	Conclusion.....	24
	Stress-Related Disorders.....	25

**PART II   WAYS TO EVALUATE PERSONAL STRESS**

<b>CHAPTER 4</b>	<b>SIGNS OF STRESS</b>	29
	Methods of Self-Monitoring.....	30
	Self Observation.....	30
	SUDS Monitoring.....	31

**Part III   CONTROLLING STRESS**

<b>CHAPTER 5</b>	<b>OVERVIEW OF STRESS CONTROL</b>	35
	Summary of Interventions.....	36

**PART IV   STRESSOR MANAGEMENT**

<b>CHAPTER 6</b>	<b>"USE-AS-REQUIRED" STRATEGIES</b>	38
	Introduction.....	38
	"Use-As-Required".....	38
	Leave the Situation.....	38
	Support Groups.....	38
	Increase Repertoire of Coping Skills.....	38
	Problem Solving.....	39
	Financial Management.....	42
	Time Management.....	44
	Assertive Skills.....	51
	Communication Skills.....	57
	Vocational Planning.....	62
	Conflict Management Skills.....	71
	Dealing Effectively with Children.....	80
<b>CHAPTER 7</b>	<b>"USE CONTINUOUSLY" STRATEGIES</b>	96
	Exercise.....	96
	Nutrition.....	101
	Summary.....	107

**PART V   STRESS MANAGEMENT**

<b>CHAPTER 8</b>	<b>BEHAVIORAL INTERVENTIONS</b>	109
	Introduction.....	109
	"Use-As-Required" Strategies.....	109
	"Use Continuously" Strategies.....	109
	Reshaping Type A Behaviors.....	110
	Anxiety Management Training.....	111



<b>CHAPTER 9</b>	<b>COGNITIVE INTERVENTIONS</b>	<b>113</b>
	Introduction.....	113
	"Use-As-Required" Strategies.....	113
	Monitoring Pros and Cons.....	114
	Thought - Stopping.....	116
	List of Positives.....	121
	"Use Continuously Strategies".....	121
	Rational Emotive Counselling.....	124
	Cognitive Stress Inoculation Training.....	129
<b>CHAPTER 10</b>	<b>PHYSIOLOGICAL INTERVENTIONS</b>	<b>143</b>
	Nature of Relaxation.....	143
	"Use-As-Required" Strategies.....	147
	Cue-controlled Relaxation.....	147
	Differential Relaxation.....	149
	Quieting Response.....	150
	"Use Continuously" Strategies.....	154
	Progressive Relaxation.....	154
	—Meditation.....	168
	Self-Hypnosis.....	174
	Benson's Relaxation Response.....	182
	Summary.....	185
<b>CHAPTER 11</b>	<b>CONCLUSIONS</b>	<b>187</b>
	<b>REFERENCES.....</b>	<b>188</b>

## LIST OF TABLES

		page
Table 1	Stress Related Disorders.....	27
Table 2	Signs Of Chronic Stress.....	29
Table 3	Summary Of Interventions.....	36
Table 4	List Of Human Rights.....	53
Table 5	Guidelines For Assertiveness Programs.....	56
Table 6	Canadian Classification Of Occupation Major Groups.....	64
Table 7	Guidelines For Cover Letter Preparation....	66
Table 8	Preparation For Interviews.....	67
Table 9	Characteristics Of Three Commonly Used Strategies For Resolving Conflict.....	75
Table 10	Effects Of Win/Lose Strategy.....	76
Table 11	Effects Of Lose/Win Strategy.....	77
Table 12	Effects Of Win/Win Strategy.....	78
Table 13	Roadblocks To Communication.....	87
Table 14	Guidelines For Using Listening Skills.....	90
Table 15	Effects of "You" Messages.....	91
Table 16	Factors Affecting The Success Of "I" Messages.....	93
Table 17	Guidelines For Using "I" Messages.....	94
Table 18	Rules For Good Nutrition.....	103
Table 19	Irrational Beliefs.....	123
Table 20	Coping Statements.....	138
Table 21	Muscle Groups For Progressive Relaxation...	158

**LIST OF FIGURES**

		page
Figure 1	A Framework For Stress.....	17
Figure 2	SUDS Monitoring Sheet.....	32
Figure 3	Principle of Problem Ownership.....	84
Figure 4	Pro/Con Monitoring Sheet.....	115
Figure 5	Records Of Attempts To Overcome Anxiety..	128
Figure 6	Relaxation Monitoring Sheet.....	166
Figure 7	Relaxation Homework Log Sheet.....	167

PART I

THEORY AND RELATED RESEARCH

## CHAPTER 1

### INTRODUCTION

Everybody has it; everybody talks about it, yet few people really know what stress is (Selye, 1976). People who know little about stress often assume that it is some kind of powerful external force over which they have little control. They seem to feel that stress is to be avoided, if possible, or endured if one cannot escape. In today's time-pressured, achievement oriented society people encounter constant potential sources of stress.

No one really knows if there is more stress now than in the past, but many people believe that it has become more pervasive (Benson, 1983). People live in a world of uncertainties with everything from the nuclear threat to economic and job insecurities to changing social values. The stress of modern life is real -- there is no denying it. However, it is important for individuals to understand that it is up to them how they respond to it.

This handbook was designed to be used as a teacher resource manual for preventive stress management. Today most stress management is done at a remedial level. This handbook is an attempt to create a more preventive approach for use in the school system. An underlying assumption in this handbook is that awareness is a guiding principle in stress management. People need to understand stress, what causes it, how it affects them personally and how they can handle it.

This handbook was designed to give the reader a clear understanding of the nature of stress, to outline the effects of stress on the body, to provide some procedures for evaluating personal stress levels and finally to offer some strategies and techniques that can be used for controlling stress. These areas are outlined briefly in this introduction, and elaborated extensively in subsequent sections of this handbook. Users of the

handbook are encouraged to read the introduction, and then refer to the relevant sections when they want additional background information, or an elaboration of treatment methodology.

#### What Is Stress?

Stress is a complex reaction occurring when the demands of a situation exceed a person's perceived ability to cope with the situation (Hiebert, 1983). The stress producing factors, stressors, may be different, yet medical research has shown that they all elicit similar stress response (Selye, 1974). The stress response has three components: physiological, cognitive and behavioral. The physiological component of the stress response involves increased activity of the sympathetic nervous system. The result of this activity is heightened arousal indicated by increased heart rate, respiration rate, muscle tension, endocrine secretion, decreased peripheral skin temperature and stomach motility. The cognitive component of the stress reaction involves an appraisal of the degree of threat, or amount of demand that a situation contains (Everly & Rosenfeld, 1981; Lazarus, 1974). The cognitive activity involved in this appraisal usually misrepresents the situation by over-exaggerating the degree of threat or demand involved, and denigrating the coping attempts (Lazarus, 1974; Meichenbaum, 1972, 1975). The behavioral component of the stress reaction typically involves muscle tics and tremors and/or various indices of hyperactivity, referred to as the "hurry-up syndrome" (Elek, 1975). These three components tend to occur as an integrated response, i.e., when a person becomes stressed, all three response systems tend to be activated.

#### Effects Of Stress On The Body

All stress is accompanied by some physiological arousal which includes increased heart rate, increased blood pressure, increased blood flow to the

muscles and decreased blood flow to the skin and gut. When this physiological arousal is not dissipated in an appropriate manner, which is most of the time, chronic stress develops which causes wear and tear that is damaging to the body.

Chronic stress physically undermines people's health and the list of physical maladies in which stress plays a probable role is long. Chronic stress has been linked to migraine headaches, backaches, asthma, diabetes, heart disease, arthritis and even cancer (Woolfolk & Richardson, 1978). It can be a major factor contributing to high blood pressure which can damage the kidneys and increase the likelihood of cardiovascular disease (Leatz, 1981). Chronic stress can also increase the amount of acid secreted in the stomach leading to ulcers. When people are in a state of chronic stress their immunological systems work at less than peak efficiency which results in their defense mechanisms being lowered. As a result people who are chronically stressed are more vulnerable to the many viruses and infections that are encountered daily.

#### What Causes Stress?

In the past, many people felt that they experienced stress because they were victims of stressful situations or jobs. It is important to understand that, according to recent findings, this conception of stress is inaccurate (Dudley & Welke, 1979). In academic circles today people are taking a more interaction-based perspective on the causes of stress. This interaction-based model points out that whether or not a person experiences stress in a certain situation depends on both the environmental and personal factors involved in the situation. The environmental factors, typically called pressures and stressors, include such things as task difficulty, degree of uncertainty and amount of aversiveness. The personal factors

include genetic predisposition, physiological reactivity and coping skills. The work of R.S. Lazarus (1974) demonstrates that there is not a direct cause and effect relationship between an environmental situation and the body's stress reaction. It is not the events in themselves that produce the stress reaction but rather the individual's perception or appraisal of the events and the adequacy of the person's coping attempts that result in the stress. It can be said that stress comes from inside people, not from out in the environment because people create the stress in their lives by thinking and behaving in ways that lead to worry, tension and physical disease (Lazarus, 1978). For a stress reaction to occur individuals must perceive demands which are of importance and which call into question their ability to cope successfully (Woolfolk & Richardson, 1978)

#### Controlling Stress

In recent years stress has become an almost universal topic. Much has been written about the detrimental effects on health and longevity when people are chronically stressed. It has been estimated that chronic stress costs our economy approximately twelve billion dollars yearly through decreased productivity and increased absenteeism (Hiebert, 1982). Evidence suggests that the incidence of stress related disorders is increasing in our society to the point that in 1976 stress surpassed the common cold as the country's most prevalent health problem (Woolfolk & Richardson, 1978). A statistic such as this indicates that a growing number of people are coping less effectively with the daily situations which cause them stress (Hiebert, 1981). Most of the published data suggest that the main reason people are coping less effectively, and as a result are adopting inappropriate strategies for managing stressors is that they have not learned appropriate strategies for managing stressors (Meichenbaum & Turk, 1976). Health experts



now agree that stress is a serious problem and there is a real need for a widespread program of education that approaches stress management from a preventive as well as a coping framework.

Stress control can be approached from two directions. People can seek to change a demanding situation so that it contains less pressure. Such an approach is referred to as stressor management. Alternatively, people can leave the situation as it is and focus on changing their reaction to the situation so as to make the reaction less intense. This second approach is known as stress management (Hiebert, 1982).

#### Stressor Management

Stressor management strategies are procedures for altering a situation to reduce the amount of pressure in the situation. The rationale is that if the pressure is reduced, there is a greater likelihood that any given individual will be able to cope with the situation. Some common stressor management strategies include: time management, parenting training, acquiring problem solving and decision making skills, acquiring conflict resolution skills, nutrition control, aerobic exercise, reducing role ambiguity, and numerous types of physical work or home changes such as improving lighting, reducing noise, etc. An elaboration on one or two strategies will serve to illustrate the point. Frequently, people report time pressures as a stressor. Often when these people acquire some procedures for managing their time more effectively, they find they have enough time to complete all their work. Similarly, parents who feel harassed by their children, often find the children to be less of a stressor when the parents acquire some skill in parenting and are able to use non-coercive ways to achieve a cooperative and mutually respectful family interaction. In those cases, the person involved is not striving to respond less stressfully to a given situation. The person

is striving to change the situation so that it is less stressful.

### Stress Management

In some cases it may not be possible to change the situation. In other cases the individual may not want to change the situation. In both of these cases, if the people wish to feel less stressed, the focus must shift to changing the reaction to the situation. People cannot always change a situation, but they can always change the way the situation affects them. The secret is to acquire the necessary skills. Typically, these skills are divided into three broad categories: behavioral, cognitive and physiological.

#### Behavioral Approaches

Approaches directed at the behavioral component of stress have the common characteristic of helping people slow down. Stress has sometimes been referred to as the "Hurry-Up syndrome" building on the research involving Type A and Type B behavior patterns (Friedman & Rosenman, 1974). People with type A behavior patterns tend to be hard driving, competitive, at times compulsive, polyphasic thinkers and decision makers. Individuals with Type B behavior patterns are the antithesis. They tend to be more relaxed, less time bound, sequential thinkers and decision makers. Cultivating Type B habits often serves to reduce the harried feeling that accompanies stress. Specifically, the following things often help to enhance a feeling of peacefulness and calm: walking slower, talking slower, taking more time to eat lunch, especially on busy days, completing tasks one at a time, rather than trying to do many things at once, stopping for a short break mid-morning and mid-afternoon, and so on. These procedures are especially important on days that are tightly scheduled. In using strategies aimed at controlling the behavioral component of stress, it is important to slow down so that you

can get everything done, and get it done with a minimum of stress.

### Cognitive Approaches

Approaches directed at the cognitive component of stress have the common characteristic of teaching people to be more self-supportive. On any given day, most people spend more time with themselves than they spend with anyone else. If the people they spend most of their time with are constantly harassing them, they are likely to end up feeling stressed. If the people they spend most of their time with are giving them encouragement, they are likely to feel less stress, and accomplish more as well. The goal of cognitive approaches to stress management is to promote an ongoing self-dialogue that is supportive and encouraging. Some simple procedures can be used to promote this. For example, people can divide a small index card in half, marking one side "+" and the other side "-". Each time they say something to themselves (or think a thought about themselves) check marks are placed on the cards. Positive, self-supportive, encouraging thoughts are checked on the "+" side. Negative, critical and put-down thoughts are checked on the "-" side. After recording for a couple of days, the individuals begin to increase systematically the number of checks on the "+" side. On days when there are many checks on the "+" side and only one or two on the "-" side, people will likely feel relatively unstressed. Another simple procedure is to place reminders of a positive focus in places that are frequently encountered. These reminders might be posters with a positive message on the hall mirror, above a light switch, beside the telephone, any where that is likely to be noticed frequently.

Very often people are almost constantly aware of their faults and need to shift the focus away from faults and problems and on to positive attributes that will be instrumental in resolving problems. Support groups

work in a similar way, if the focus of the group is positive. Groups that spend much time complaining or focusing on problems do not contribute to stress reduction. When a person has a group to turn to that is positive in focus, the mere fact that the group is available, serves to reduce stress. Other clinical procedures like thought stopping or stress inoculation training, or rational emotive therapy have a strong success record. The common theme uniting these clinical procedures and the more simple alternative mentioned above is some way for teaching people to be more self-accepting and less self-critical. People who are more self-supportive are less stressed (Hiebert, 1982).

#### Physiological Approaches

Approaches directed at the physiological component of stress have the common characteristic of teaching people some procedure for producing a relaxation response. For the most part the relaxation response is the physiological opposite of the stress response. The relaxation response is a body state accompanied by decreased heart rate, respiration rate, muscle tension, sweat gland activity, and increasing skin temperature in the hands and feet. Several procedures have been shown to train a relaxation response reliably. These include: Transcendental Meditation (TM), yoga meditation, Self-hypnosis, Progressive relaxation, and Herbert Benson's Relaxation response. When people regularly use some form of relaxation, their level of physiological arousal is reduced, thus becoming physiologically less reactive. This helps to keep minor irritants from functioning as stressors.

#### Organization Of This Handbook

This handbook has been divided into five parts. Part I provides some background information on theory and research. It was designed to clarify the term stress through the presentation of a conceptual framework for

viewing stress. Part II reviews some procedures that can be used to evaluate personal stress. It includes a list of signs of chronic stress and a description of two methods of self-monitoring that can be used for stress control purposes. Part III overviews the techniques that can be "used-as-required" or "used continuously" to control or prevent stress. Parts IV and V elaborate these techniques. Part IV describes the stressor management strategies, that can be used in situations where some environmental control is possible. The goal of all stressor management strategy is to change the situation, to reduce the pressure or to change the stressor into a pressure. Part V elaborates the stress management strategies, which can be used in situations that are difficult or impossible to change. The goal of all stress management procedures is to change the reaction to a given situation so the reaction is less stressful, even though the situation per se remains unchanged.

## CHAPTER 2

### UNDERSTANDING STRESS

Few words in our language suffer more from diverse and ambiguous usage than the term stress, it being used in so many different ways that it has almost lost its meaning (Dudley & Welke, 1977; Sehnert, 1981). In order to help clarify the meaning of the term stress a conceptual framework for viewing stress will be presented and then some of the key stress concepts will be elaborated.

Most current writers in the area of stress and stress management would agree that stress results from the interaction between some personal factors (genetic predispositions, idiosyncratic perceptions, repertoire of coping skills) and some environmental factors (task difficulty, amount of aversiveness, degree of uncertainty; Hiebert, 1983). The environmental factors are usually referred to as stressors or pressures, while the term stress is usually used to describe the person's reaction.

In the past stress was viewed in the somewhat simplistic terms of stimulus and response: people faced with problems or difficult situations automatically responded with a reflexive stress reaction. This conceptualization does not explain how and why the same situation which results in stress in one individual does not stress another. It does not take into account the cognitive appraisal system, learning history or genetic factors influencing reactivity. It is the subjective perception and appraisal of events that makes them stressful (Lazarus, 1974). For a stress reaction to occur, people must perceive demands which are of importance and/or which call into question their ability to cope successfully and painlessly. If individuals believe that the situation is not important

and/or that they are capable of controlling the situation, then stress will not occur. Stress occurs when people feel that their resources are not sufficient to meet the demands placed upon them.

For stress control purposes, if people want to feel less stressed they have two options: (a) they may learn ways to alter their environment to reduce the amount of pressure or (b) they may change the way they react to their environment so that a given situation is experienced as less stressful (Lazarus, 1974). Strategies aimed at teaching individuals how to change their environment so as to contain less pressure have come to be known as stressor management strategies. The label stress management is usually reserved for those strategies which teach people how to change their reaction to a given situation (Shaffer, 1982).

### Key Concepts

#### Stress

For the purposes of this handbook, stress is defined as a complex reaction occurring when the demands of a situation exceed a person's perceived ability to cope with the situation (Hiebert, 1983). This definition is an extension of Selye's notion of stress as being the "nonspecific response of the body to any demand" (Selye, 1974, p. 14). From Selye's perspective, stress becomes the amount of wear and tear on the body as a result of being alive. Virtually every activity in which people engage (both positive and negative, happy and unhappy) becomes stress inducing to a greater or lesser degree. Everything people do places some demand on the body and is therefore stressful. From Selye's definition of stress the only way to avoid stress would be to do nothing at all and complete freedom from stress would be death (Selye, 1974). This notion of stress is not too useful from the practical point of view of teaching people to control their stress.

Selye's definition makes it seem like people are victims of stressful situations by the very nature of their living but this does not take into account the individual's cognitive appraisal of their ability to cope with the situation before the stress reaction occurs (Hiebert, 1983). People are not victims of stressful situations but rather they create the stress in their lives by thinking and behaving in ways that lead to worry, tension and physical disease (Lazarus, 1974).

The definition of stress for the purposes of this handbook is more in agreement with common connotations of the term stress while at the same time adhering to the major theoretical propositions on stress (Hiebert, 1983). Using the definition of stress as a reaction occurring when the demands of a situation exceed a person's perceived ability to cope, makes it easier to construct a framework for teaching people to control their stress.

The implication in the above discussion is that people experience stress as an unpleasant emotion, as opposed to excitement, joy, etc., where there is heightened arousal, but positive effect (Hiebert, 1983). Further, the stressful reaction is not a result solely of situational demand per se but of the person's perception of how well the situational demand is being handled. Perception plays a key role in the definition of stress put forward in this handbook.

In summary, stress has been described as a complex personal reaction involving the physiological, cognitive and behavior response systems that involve three key elements: situational demands, attempts to cope, and perceptions both of demands and coping abilities (Hiebert, 1983).

#### Demand

Stress can result when a demand is placed on a person. The demand may be internal or external, real or imagined. Any stimulus, whether internal or



external, real or imagined which requires individuals to be or do anything differently from the way they are behaving at a given moment is a demand (Anderson, 1978). Humans are especially vulnerable among living beings in regards to demands because they react not only to the actual existence of such demands but to their symbolic interpretations as well. It is possible for a stress response to be experienced even though the demand is imagined. For example, there may be the perception that one is hungry, an internal demand on the body. If 4 or 5 hours have elapsed since the person last ate, the demand is likely very real. If 15 or 20 minutes have passed since the person last ate a balanced food intake, then the demand is likely imagined. The person still feels hungry, and the hunger is real enough; however, there is no real food-deprived demand on the person's body. Some demands on the person are external and again these may be real or imagined. Hiking in the mountains and encountering a bear would result in a real, external demand. If there were no bears in the area but common forest noises were misinterpreted to suggest that a bear was in the area, a stress response would be experienced, but the demand would be imaginary.

#### Degree Of Coping

When a demand is placed on an organism, there is a concomitant striving to meet the demand. If the demand is not real, then the resulting action is not likely to be adaptive because the resulting activity is unlikely to be effective in reducing the imagined demand. It is not in people's best interests to prepare to fight or flee from imagined demands. If the intended coping behavior is perceived to be effective, this will serve to reduce arousal and restore equilibrium. However, if the attempts at coping behavior are perceived to be ineffective, stress and the heightened arousal will likely be sustained. In other words, stress results when people perceive

themselves as not handling the demands they encounter very well (Hiebert, 1983).

### Perception

In the foregoing discussion, perception plays a central role. In some cases physiological imbalance (hunger, hormonal imbalances, blood sugar level) create a demand that precipitates a stressful response. This process might occur outside the person's awareness, yet still be stress inducing (Shaffer, 1982). However, in most cases, it is the perception of a demand (real or imagined) that gives rise to a stress response. Similarly, when coping behavior is initiated it is the perception of the adequateness of the coping behavior that gives rise to the stress response. As long as the person perceives the attempts at meeting the demands as being unsuccessful, a stress response will likely be sustained. When the coping attempts are perceived to be working, the stress response begins to subside.

### Pressure, Stressor And Stress

In the early literature the terms pressure, stressor and stress were used interchangeably (Hiebert, 1983). Recently, distinctions have started to be made among these three terms. Pressures are stimulus events which place a demand, but do not evoke a stress response. When a person encounters a stressor, a stress reaction always follows. Demands may or may not give rise to a stress response depending on such factors as the intensity and duration of the demand and how well the person copes with the situation. Demands which result in a stress response are called stressors (Albrecht, 1979; Everly & Rosenfeld, 1981; Shaffer, 1982) whereas demands which are handled satisfactorily and do not elicit a stress response are called pressures. Stressors and pressures are both stimulus events while stress is a response event, and not part of the stimulus configuration. While pressures and

stressors may be internal or external events, stress is always an internal event. Stress is the individual's reaction to stressors. A pressure becomes a stressor as a result of a cognitive misinterpretation of a situation, or when the stimulus involved has inherent properties that produce a state of disequilibrium (Everly & Rosenfeld, 1981). This distinction is important and can be seen graphically demonstrated in Figure 1.

Since stress is the individual's reaction to a stressor, a person has some control of the stress. The acceptance of this control provides the opportunity for managing the stress.

In summary, it is important to separate the response event (stress) from the stimulus event (demand) and to subdivide the stimulus event further into those events that elicit a stress response (stressor) and those which do not elicit a stress response (pressure). This conceptualization has enormous implications for teaching preventive as well as coping stress and stressor management strategies.

#### Transitory And Chronic Stress

When a person is stressed, there is an automatic striving to restore homeostasis (Shaffer, 1982). This usually occurs as individuals engage in various coping behaviors as they try to "handle the situation" (Hiebert, 1983). If the demand decreases, or if coping attempts begin to be perceived as successful, the system begins to return to normal and homeostasis is restored. The situation just described is a transitory stress response. This is the normal response to everyday stressors; the person reacts, handles the situation, and returns to normal with very few negative side effects. If however, the stress response is elicited with a high frequency, or if the stress duration is prolonged, a state of hypermobilization, characteristic of chronic stress, is sustained (Everly & Rosenfeld, 1981; Shaffer, 1982). A

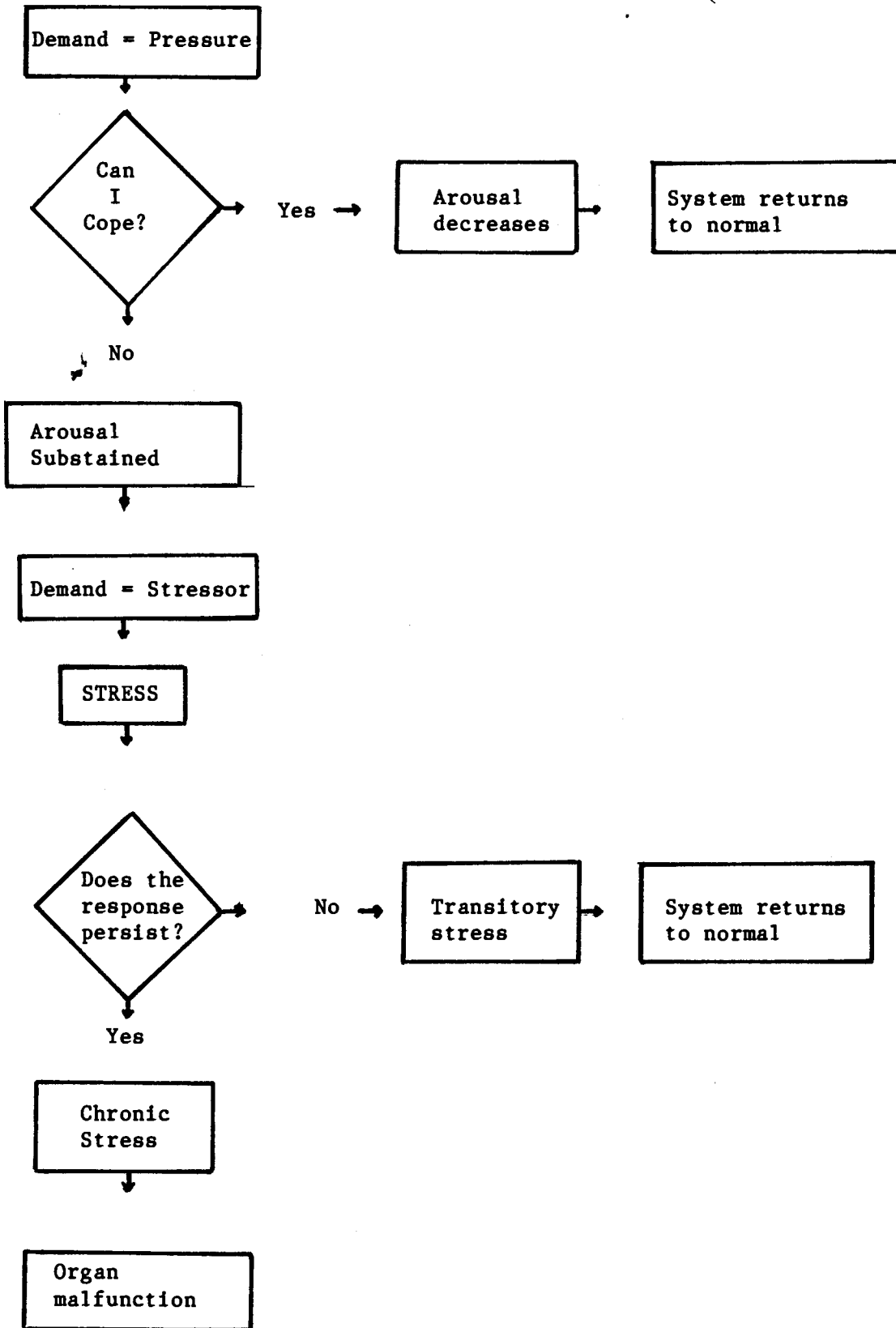


Figure 1. A Framework For Stress

state of chronic stress is also characterized by hyperarousal, maladaptive cognitive activity, and inappropriate behavior, frequently resulting in such somatic symptoms as headaches, gastro-intestinal, cardiovascular, and cerebrovascular disorders, chronic muscle tension, and frequent flus and colds (Albrecht, 1979; Antonovsky, 1979; Everly & Rosenfeld, 1981; Lamot, 1975; Shaffer, 1982).

To reiterate, transitory stress is seen as the normal reaction to the everyday stressors that most people face. Chronic stress is the stress response that is sustained over time due to frequent elicitation or prolonged intense demand. The bulk of medical evidence linking stress and disease would more explicitly refer to a link between disease and chronic stress (Hiebert, 1983).

#### Summary

Stress has been defined as an emotional reaction occurring when the demands of a situation exceed a person's perceived ability to cope with the situation. The process begins with a demand or some perceived pressure (see Figure 1). The demand may be internal or external, real or imagined; the result is the same: a mobilization of the person's resources to meet the demand and thereby reduce the pressure. This mobilization involves some increase in arousal, and cognitive activity directed towards evaluating the situation and exploring possible solutions (Lazarus, 1974). If the individual perceives the situation as being coped with adequately, the mobilization decreases and the person's system returns to normal. If the coping attempts are perceived to be inadequate, the arousal is sustained (or even increased), concomitant inappropriate cognitive activity is present (over-exaggeration and self-denigration), and hyperactivation of the motor system also occurs. These characteristics indicate that the demand has become a stressor and that

the person is experiencing stress. The stress response may persist or it may be short-lived. If the demand decreases, and/or the coping attempts are perceived as being successful, the stress response will begin to dissipate and the system will return to normal. This short-lived stress response is referred to as transitory stress. If the stress response persists, a state of chronic stress develops. Chronic stress may result when experiencing a high frequency of stressors, or when the combination of intense stressor and low coping ability result in the prolonged elicitation of the stress response. In either case the result is the same: hyper-elevation of physiological baselines, a high density of maladaptive cognitions, and ultimately the onset of various somatic disorders referred to as "stress related disorders".

### CHAPTER 3

#### EFFECTS OF STRESS ON THE BODY

##### Stress Reaction

Now that the conceptual framework for viewing stress has been outlined it is useful to discuss the stress reaction in more detail. This discussion will provide a description of the effects of stress on the body, including the physiology of the stress reaction, common signs and symptoms and stress related disorders.

Research has shown that stress arouses, alerts or otherwise activates the organism (Woolfork & Richardson, 1978). Whether the stressor is a real demand or a perceived psychological threat does not matter; the body responds in a predictable manner skeletally, viscerally and hormonally. The stress response is a state manifested by a syndrome which follows a specific sequence. Selye refers to the stress response as a "nonspecific" response because it is a "whole body" reaction and a time-extended sequence. He labelled the stress sequence the general adaptation syndrome (GAS) and distinguishes between the various stages of the sequence. The first stage is an "alarm reaction", the second a "stage of resistance" and the third a "stage of exhaustion" (Selye, 1974).

##### Alarm Reaction

If a stressor is present, the alarm reaction will follow. The alarm reaction can be set off by external events or by internal thoughts or memories, or a combination of both. The most familiar element of the alarm reaction is the release of adrenaline into the bloodstream causing a sudden increase in the heart rate. At the same time a number of other body changes take place. Breathing becomes shallower, and blood flows from the skin and viscera to the muscles and the brain. Concurrently nourishment is

redistributed to those parts of the body that would be needed to respond to the emergency, particularly the musculature (Shaffer, 1982).

Accompanying these changes are many more that individuals cannot perceive. In emergency situations the hypothalamus sends electrochemical signals to the pituitary gland located at the base of the skull. The pituitary gland secretes a hormone called ACTH (adrenocorticotrophic hormone) to activate the adrenal glands. These glands in turn release into the bloodstream substances called corticoids, which carry messages to other glands and organs. Examples of such activation include mobilization of the spleen which releases red blood cells into the bloodstream. These additional red blood cells, which carry oxygen and nourishment to other cells throughout the body, are needed to handle the increased demands of the body during the alarm stage of the stress reaction. Similarly, the ability of the blood to clot is increased, and the liver releases stored vitamins and nutrients in the form of glucose, which will then be converted into nourishment for the body's cells. In addition, the body uses large amounts of B vitamins, C vitamins, and other nutrients during the alarm stage.

The alarm reaction is not the only network activated when a stressor is identified and the alarm stage is triggered. Walter Cannon's early studies explored the involvement of the autonomic nervous system (ANS) in the stress reaction. The ANS is a series of nerve pathways which connect many of the internal organs and it is the route by which messages are sent to the adrenal glands in order to release adrenaline and speed up the heartbeat and respiration.

Cannon also described what he termed the emergency reaction, a response that might be best described as an acute case of Selye's alarm reaction (Cannon, 1953). This extreme reaction, called the fight or flight reaction,



was often ecologically adaptive, enhancing the chances of the organism's survival. That is, in the face of extreme danger, the organism would either confront the danger or flee from it. When this response is evoked, part of the ANS called the sympathetic nervous system becomes highly active and the body is required to make the changes previously mentioned.

Several other concomitants of the alarm reaction need to be mentioned. One is muscle tension. Whenever the body enters into the alarm reaction, one of the consequences is tension in the musculature. Such tension usually occurs in the large muscle groups, the lower back, neck and shoulders. This tension is a principal indicator of stress and, as such, can be of great value both as a measure of how stressed we are and as a tool for helping us gain control over stress.

It is important to realize that Cannon's "emergency reaction" is a much more specific and extreme case than Selye's alarm reaction. In most situations, human experience with stress requires far less strenuous measures than those occurring as a by-product of the fight or flight response or emergency response as described by Cannon. Thus the alarm reaction is a complex physiological response involving a number of interacting bodily systems.

#### Stage Of Resistance

If the situation that initiated the alarm response persists, and the person's attempts to cope with the situation are perceived to be unsuccessful, the alarm stage will then be followed by a stage of resistance. During this second phase of the GAS, the body will mobilize to combat the stressor. The distinctive indicators of the alarm reaction will apparently disappear during this period of resistance, and the body will seem to have "returned to normal" as it vigorously fights the stressor. The

individual is so concerned with coping that the awareness of the hypermobilization is shrouded. In actual fact, the hyperactivation may or may not subside, depending on the success of coping attempts. There is a danger that this stage of resistance will last too long because if the body is mobilized for too long a time, its resources will become depleted. When this happens, the stage is set for the final stage of the GAS, the stage of exhaustion.

### Stage Of Exhaustion

When the stage of resistance has been completed and exhaustion sets in, the body once again exhibits symptoms similar to those of the alarm reaction itself. The most important feature of the third stage of GAS is that the body is increasingly vulnerable to disease and organic dysfunction. This is the point at which stress-related diseases begin to be most evident.

It is worth noting that there is no way to avoid the GAS entirely (Selye, 1974). The stress reaction will be initiated again and again by a wide range of stressors. Excitement, joy, and unexpected happiness can evoke the alarm response as effectively as grief or sudden tragedy. Remembering the distinction between transitory and chronic stress, it is possible to reduce the frequency and intensity of the alarm response but not to eliminate it (Shaffer, 1981). It is important to note that although most people cope with positive affect satisfactorily and therefore rarely reach the stage of exhaustion, they often do need assistance dealing with negative affect so that they can return to normal during the stage of resistance.

In summary it can be seen that whether the stressor is a real physical demand or a perceived psychological threat does not matter. The body responds in a predictable manner skeletally, autonomically and hormonally: muscles are tensed, breathing is faster, sympathetic stimulation produces

sweating and increased heart rate, dilation of the muscle blood vessels and the release of glucose by the liver; hormonally the adrenal glands, the thyroid glands and the pituitary gland compliment and support the action of the sympathetic nervous system raising blood pressure and accelerating the cardiac and respiratory rate (Selye, 1974).

### Conclusion

The first and second phases of the GAS are not unduly harmful to a person's health but the third stage is to be avoided if at all possible. Repeated evocations of the alarm reaction are tolerable, even repeated forays into the realm of resistance, but journeys into the land of exhaustion are dangerous -- far too dangerous to tolerate if they can be avoided. In the stage of exhaustion, stress becomes chronic stress and results in "stress related disorders" (Shaffer, 1982).

It should be remembered that although the preceding discussion of the effects of stress on the body mainly dealt with the physiological components of the response, there are also cognitive and behavioral components of the stress response that cannot be ignored. The cognitive or the behavioral activity per se will not produce the GAS; it is the resulting physiological activity that triggers off the sequence. However, when a person becomes stressed three of the response systems tend to become activated as an integrated response so that inappropriate cognitive activity and hyperactivation of the motor system affect the heightened arousal which produces the GAS.

### Stress Related Disorders

Stress related problems and disorders are often called psychosomatic (from the words psyche, meaning mind, and soma, meaning body). Unfortunately this term is somewhat misunderstood and as a result psychosomatic illnesses

often have a negative connotation. Many people understand the term psychosomatic to mean that the problem is "all in one's head" and that the problem would go away if people would "just relax and stop worrying about it", or that the pain is some how not very real (Leatz, 1981). The confusion which has resulted from the term psychosomatic is in large part due to the psychoanalytic theory of psychosomatic illness which viewed such illnesses as an unconscious choice to become ill as a way of coping with intolerable situations. People suffering from psychosomatic illnesses were seen as weak or lacking willpower.

The psychoanalytic theory of psychosomatic illness was developed before researchers discovered that stress biochemicals could actually cause physical tissue damage and trigger many health problems. Most medical researchers now believe that the stress reaction is a causal factor in many contemporary health breakdowns (Everly & Rosenfeld, 1981). The problems may occur as a result of faulty thinking, but the tissue damage and pain involved are very real. There has been considerable theory formulation and research related to the exact nature of this link between stress and disease. Selye's studies on the General Adaptation Syndrome are used to illustrate and clarify this link (Sehnert, 1981). It has been shown that the complex biochemical changes, depletion of energy reserves and corticoid production that occurs during GAS can cause actual tissue damage over a prolonged period of time (Leatz, 1981). The organ or body system to be affected pathologically depends on genetic factors which predispose the organ or system to harm from psychophysiological arousal. This is referred to as the "weak-link" or "weak-organ" theory of psychosomatic disease (Everly & Rosenfeld, 1981).

Researchers are only just beginning to understand this process and it should be remembered that very few, if any, diseases are "caused" by one

factor only. The body is incredibly complex and as a result a multi-causal viewpoint is needed in looking at disease. Rather than concluding that any specific disorders are "caused" solely by stress, it is necessary to think of chronic stress as being one of the important variables (Albrecht, 1979). Table 1 lists many of the maladies in which chronic stress plays a probable role.

TABLE 1  
Stress Related Disorders

<u>Physical</u>	<u>Psychological</u>
Cardiovascular Disorders	Anxiety
-coronary artery disease	Agitated Behavior Patterns
-strokes	Insomnia
-hypertension	Depression
-arrhythmias	
-migraine headaches	<u>Behavioral</u>
-Raynaud's phenomena	Self Destructive Habits
Gastrointestinal Disorders	-overeating
-peptic ulcers	-smoking
-ulcerative colitis	-drinking
Musculoskeletal Disorders	-dependency on drugs
-tension headaches	-marijuana
-backaches	-tranquilizers
-rheumatoid arthritis	-sleeping pills
Respiratory & Allergenic Disorders	Hurried, Overactive Behaviors
-hay fever	-walking fast
-asthma	-talking fast
-hyperventilation	-eating fast
Skin Disorders	-impatience
-eczema	
-acne	
-psoriasis	
Immunological Disturbances	
-infectious & degenerative diseases	
-flus	
-colds	
-cancer	

PART II

WAYS TO EVALUATE PERSONAL STRESS

## CHAPTER 4

### SIGNS OF STRESS

There are many different signs of stress and these can vary greatly from person to person. However there are a few more common signs that many people share. By becoming more aware of some of the ways stress shows its presence, individuals can learn to better gauge the degree to which stress is present in their lives. This knowledge can be used as a warning device for stress control purposes.

It should be remembered that the signs of stress are the signs of chronic and not transitory stress. The common signs of chronic stress can be best categorized under the following headings:

Table 2  
Signs Of Chronic Stress

<u>Physical</u>	<u>Psychological</u>	<u>Behavioral</u>
-insomnia	-inability to make decisions	-increased smoking
-low energy or fatigue	-depression	-sudden weight gain or loss
-muscle tension and pain	-anxiety	-increased drinking
-high blood pressure	-irritability	-increased medication
-respiratory problems	-memory problems	-hyperactivity
-stomach disturbances	-repetitive thinking	
-heart irregularities	-worrying	

In order to evaluate personal stress levels individuals must learn to pay close attention to the physical, cognitive and behavioral patterns of their bodies. In doing so, they are learning to become aware of and to discriminate their body's stress signals or body "clues" (Stroebe, 1978).

The more people can learn about their specific stress signals and how they correlate with events and situations, the more capable of implementing the appropriate stress control technique these individuals are. An effective way to gather this information is self-monitoring. Its objective is to



become aware of how the demands, pressures and stressors that they encounter can be handled constructively so that they do not result in chronic stress (Albrecht, 1979). People often do not realize they are becoming stressed they are so worked up that behaving effectively is difficult. By using a self-monitoring technique, stressed individuals can learn to be more objective, this helps control or inhibit the stress response.

#### Methods Of Self-Monitoring

Among the large number of self-monitoring techniques are two that are particularly useful for stress control purposes. Self observation and subjective units of disturbance scaling are two techniques that are relatively easy to learn and are quite applicable to stress control instruction.

#### Self-Observation

The first method of self-monitoring is self-observation. Behavioral researchers recognize the importance of self-observation as a performance in its own right (Thoresen, 1974). Self-observation provides a method by which people can become quantitatively more aware of their own behaviors and the factors that influence them. As such it represents an important first step in the development and implementation of effective self - control technique. The mere act of observing a phenomenon may alter that phenomenon and as a result self observation serves both as a measurement and a preliminary self-change strategy.

Self-observation is a highly complex process involving both covert and overt behaviors. The first phase of self-observation is discrimination, discerning the presence or absence of a particular response. For stress management purposes there exists a need to discriminate personal stress signals. This discrimination must be followed by some kind of recording procedure so that the occurrence of the behavior can be viewed in a

systematic way. A variety of devices such as wrist counters, writing pads, booklets and 3" x 5" cards can be used for self-observation purposes.

For stress control purposes, individuals need to try to become aware of any particular patterns of behavior that indicate that it is time to implement a stressor or stress management strategy.

### SUDS Monitoring

A second self-monitoring technique is the subjective units of disturbance (SUDS) scale. This technique consists of using Wolpe's (1969) Subjective Anxiety Scale to train individuals to self-monitor their anxiety level. The Subjective Anxiety Scale ranges from 0 - 100, with the numbers representing subjective units of disturbance. Individuals must develop their own SUDS scale by labeling various anxiety-evoking situations with respect to the amount of disturbance (i.e., the number of SUDS) they evoked. The situation that produced the most anxiety is labeled 100 SUDS; a situation which causes no anxiety is labeled 0 SUDS. All other situations must fit between these two extremes.

SUDS can be used to monitor anxiety on an on going basis to develop a "mental speedometer" that can track anxiety and provide on going feedback about anxiety levels. Individuals using this self-monitoring technique should monitor their SUDS levels in a small notebook or on a SUDS sheet (see Figure 2). After a week of monitoring SUDS levels at hourly intervals, inter-monitoring intervals should begin to be reduced and the monitoring notebooks faded out. To do this individuals should record SUDS levels at 30 minute intervals for two days, then monitor at 15 minute intervals but record at 30 minute intervals (every second time) for one day. On the fourth day monitor every 15 minutes but record only once per hour. On the fifth and sixth days, increase the frequency of monitoring "all the time" without using

Date _____			Date _____		
Time	Description of Situation	SUDS	Time	Description of Situation	SUDS

Figure 2. SUDS Monitoring Sheet

a recording book (Hiebert & Fox, 1981).

Using this technique helps keep the stress experience in its proper perspective. Using the SUDS scaling technique teaches people to adopt an objective viewpoint about how anxious they are and as a result helps control their anxiety. Those under stress tend to rely on a self-defeating pattern of self-talk that goes as follows: "Hey, I am a little anxious here. Yes, in fact I really am anxious and before long I'll be going to pieces." After learning to keep track of their anxiety on a SUDS scale, the dialogue usually switches to, "Hey, I'm a little anxious here. I'm up to 20 SUDS, but that's no problem, I still function effectively at 20 SUDS." This takes anxiety out of a self-amplifying, self-defeating framework and gives a sense of control over their anxiety.

Self-monitoring is a useful skill that should be learned in order to implement stress control techniques.

#### Suggested Readings

Kanfer, F. & Goldstein, A. Helping people change.  
New York: Pergamon Press, 1975.

Krumboltz, J. & Thoresen C. Counselling methods.  
New York: Holt, Rinehart and Winston, 1976.

Rudestam, D. E. Methods of self-change. Monterey:  
Brooks/Cole, 1980.

Thoresen, C. & Mahoney, M. Behavioral self-control.  
New York: Holt, Rinehart and Winston, 1974.

**PART III**

**CONTROLLING STRESS**

## CHAPTER 5

### OVERVIEW OF STRESS CONTROL

The conceptual framework presented earlier in the handbook defines stress as an emotional reaction occurring when the demands of a situation exceed a person's perceived ability to cope with the situation (Hiebert, 1982). This framework serves as a very useful guide for teaching stress reduction procedures. Following this model, it is clear that the two key characteristics in stress are demands and coping procedures. As a result there are two logical foci in stress reduction: (a) procedures which attempt to reduce the demand (stressor management), and (b) procedures which attempt to change how the person reacts to the demand (stress management). Table 3 outlines these procedures (Hiebert, 1982) Within each category there are some procedures which are named "use as required" strategies. These are relatively easy to learn and do not require a great deal of commitment or life-style change to implement. The "use continuously" strategies require regular and continuous use and a high degree of commitment. When planning stress interventions there must first be an assessment of the degree to which environmental control can be used to reduce the amount of demand or whether the environment must be considered unchangeable and as a result focus on changing the individual's reaction to the situation.

Table 3  
Summary of Interventions  
CONTROLLING STRESS

FOCUS	GOAL		use-as-required	use continuously
S T R E S S O R M G T	Change the situation -reduce pressure -change stressor to pressure		-leave the situation -support group -increase repertoire of coping skills -problem solving -financial planning -time management -assertive skills -communication skills -vocational planning -conflict resolution skills -skills to deal with children effectively	-organizational change  -exercise -nutrition -sound barriers -lighting
S T R E S S M G T	change reaction to the situation	B E H A V I O R	-walk/talk/eat more slowly	-Train Type B -Anxiety Management Training
		C O G N I T I O N	-Thought stopping, -Positive self-talk -Pro/con monitoring posters	-Rational Emotive Therapy -Cognitive Stress Inoculation Training
		P H Y S I O L O G Y	-Cue-controlled relaxation -Differential relaxation -Quieting Response	Regular relaxation -Progressive relaxation -Self-Hypnosis -Meditation -Benson's Relaxation Response

**PART IV**

**STRESSOR MANAGEMENT**



## CHAPTER 6

### USE-AS-REQUIRED STRATEGIES

#### Introduction

The goal of all stressor management strategies is to change the situation to reduce the pressure or to change the stressor into a pressure. If some environmental control is possible, "use-as-required" or "use continuously" stressor management strategies can be chosen.

#### Use-As-Required

Most individuals have the skills to implement the first two "use-as-required" strategies and therefore they do not need much elaboration. The remaining "use-as-required" strategies require learning specific skills so they need to be described in more detail.

#### Leave The Situation

This is one of the basic stressor management strategies. When faced with situations which cause stress, a very useful strategy is to withdraw from the situation until arousal subsides and then go back to the situation when calmer.

#### Support Groups

Another relatively simple technique is to use a support group in times of heavy demands. Support groups can include friends, family or fellow workers. Talking to these people can help the individual see the problem from a different perspective or uncover a workable solution to the problem. Formal organizations such as Alcoholics Anonymous, Overeaters Anonymous, Parents Without Partners and other mutual aid societies provide people with the opportunity of helping others as they help themselves (Sehnert, 1981).

#### Increase Repertoire Of Coping Skills

The assumption underlying these procedures is that acquiring the

specific skill will serve to reduce the pressure in the situation (Hiebert, 1983).

Problem solving. There are a number of theory based strategies of decision making and problem solving which are relatively effective in reducing the pressure associated with indecision. The conceptual framework adopted for this handbook takes the view that decision making and problem solving should be considered a single multi-stage process involving a closely integrated series of cognitive and behavioral steps (Martin & Hiebert, 1982).

The general goal in problem solving training is not to provide specific solutions to specific problematic situations, but rather to provide a general coping strategy so individuals may be in a better position to deal more effectively with a wide variety of situational problems. The D'Zurilla and Goldfried (1971) model includes the following five steps: (1) general orientation, (2) problem definition, (3) generation of alternatives, (4) decision making, and (5) verification. This model constitutes a definite blueprint for solving problems. Although it has been acknowledged that many good problem solvers do not necessarily use this five step process, it is important to understand that poor problem solvers can be taught to increase the effectiveness of their decision making process by following the problem solving strategy. Each of the stages are elaborated so that the five steps in the decision making process will be clearly understood.

In the general orientation stages, there is a need to develop a functional attitude towards problems and their resolutions. Individuals need to understand that problems are a normal part of living and that they can learn to deal with them in effective ways. They must learn to recognize problematic situations as they occur and must learn not to react in an automatic or impulsive way. It is a good idea to start by keeping records of

problematic situations.

In the problem definition stage, the purpose is to develop a clear idea of what constitutes the problem. Initially, most people see their problems in vague or abstract terms. It is essential that they learn how to operationally define all aspects of the problem situation, to separate relevant from irrelevant aspects of the situation, and to identify the primary goals for problem resolution. The relevant aspects include external events as well as thoughts and feelings (internal events) that are important in completely describing the situation.

After obtaining a clear and specific description of the problem, it is appropriate to move to the generation of alternatives. Individuals should brainstorm at least a dozen possible solutions. It is important that they do not evaluate or prejudge any of these during the brainstorming time. Individuals must simply list all of the possible solutions on paper. In the decision making stage, alternatives are weighed in light of the consequences they produce. They must answer the following questions about each of the alternatives: Will it work? Is it fair? Will it be hard to implement? They then must make a decision on each of these alternatives based on their probability of accomplishing the primary goals without unwanted side-effects. The alternatives are then prioritized and the best available alternative must be recognized and chosen.

The final stage of this process is to verify the solution from feedback derived from implementing the selected alternative. Does the solution need revision? This is answered by evaluating the success of the alternative in relation to the desired goal. If the selected alternative has proven unsatisfactory, a recycling of the problem solving process is undertaken.

In taking a realistic view of the world around us, it is hard to deny

the fact that people are continually confronted with problematic situations with which they must cope. By learning an effective problem solving technique people can feel a greater sense of control in these situations and as a result experience less stress.

### Suggested Readings

Bloom B. S., & Broder, L. J. Problem-solving processes of college students. Chicago: University of Chicago Press, 1958.

D'Zurilla, T. J., & Goldfried, M. R. Problem solving and behavior modification. Journal of Abnormal Psychology, 1971, 78, 107-126.

Hope, J. Counselling workshop for women with multiple roles. (Special Project For Education 881). Simon Fraser University, 1982.

Horan, J. J. Counseling for effective decision-making: A cognitive-behavioral perspective. North Scituat, Mass: Duxbury, 1979.

Kanfer, F. H., & Goldstein, A. P. Helping people change. New York: Pergamon Press, 1975.

Krumboltz, J. D. & Thoresen, C .E. (Eds) Counseling methods. New York: Holt, Rinehart and Winston, 1976.

Spivack, G., Platt, J. J., & Shure, M. B. The problem-solving approach to adjustment. San Francisco: Jossey-Bass, 1976.

Financial management. A source of stress for many is finances. If people acquire more skill in financial management they can reduce this potential stressor. The results of high inflation and shrinking take-home pay is that more and more people are experiencing financial difficulties. Today, little can be done by individuals to change the economy, but by knowing how to control their money, individuals can maximize their chances of financial survival (Grenby, 1979).

No one budget works equally well for everyone. People need to develop a "spending plan" based on their personal goals, values and priorities. The method of planning described in this handbook follows the guidelines presented by Grenby (1979). The process involves three basic steps:

1. Selection of financial goals.
2. Development of spending plan.
3. Determining total money spent.

Individuals begin by listing their goals of financial planning on paper. The list might include their goal of buying a new car, clearing away old debts, buying new clothes or furniture, travel, buying a new house or just saving more money for the feeling of financial security. Once this list is complete, they prioritize their goals so they can direct their personal spending plan towards achieving them.

The next step is to develop an actual spending plan based on the amount of money that they can count on bringing home each month. This task includes listing all fixed expenses. Fixed expenses are things that must be paid each month. These expenses usually remain the same each month so they should be fairly easy to calculate accurately. Fixed expenses can include: rent or mortgage payments, heat, electricity, taxes, car payments and credit card payments. The second part of this step is to list all flexible expenses.

Flexible expenses are those that could be cut back or altered, these do not remain the same each month. Flexible expenses could include: food, gasoline, transportation, clothes, furniture, entertainment, hobbies, gifts, vacations and savings. It should be noted that although savings were listed as a flexible expense, if a high priority is placed on savings, they may be listed in the fixed expense category.

When these stages are completed, people calculate the total amount spent in each category of expenses. The next step is to subtract the fixed expense total from their take-home pay. The amount that is left over is the amount that can be used for flexible expenses each month.

A problem arises if fixed expenses are more than the take-home pay. In these cases, people need to do some serious thinking about how to lower their fixed expenses or consider ways to increase their take-home pay. Moving to less expensive housing, switching to public transportation, switching jobs, and moonlighting are all options that individuals might have to consider. Individuals who have extremely high credit card payments might find counselling aimed at teaching them how to gain control of their use of credit cards helpful and stress reducing (Leatz, 1981).

Most people find that they can cover their fixed expenses, but that the amount they have left over for their flexible expenses is less than they would like. If they are not in a position to increase their take-home pay, they need to set some priorities for their flexible expenses. Somehow the flexible expenses must be reduced. This can only be done on the basis of goals and values. Individuals must decide on what they would not be willing to change, what they would be willing to eliminate, and finally what they could cut back. Created this way, a personal spending plan fits needs, values, goals and priorities given present incomes. Individuals may need to

re-evaluate their personal spending plan if their financial situations or life-styles change.

Being a better financial manager greatly reduces one of life's most significant pressures, and as a result, reduces potential stress.

#### Suggested Readings

Grenby, M. Mike Grenby's money book. Vancouver: International Self-Counsel Press, 1979.

Leatz, C. A. Unwinding: How to turn stress into positive energy. Englewood-Cliffs: Prentice-Hall, 1981.

Time management. Time management can be a very effective stressor reduction technique. Recalling the model of stress presented earlier, it is easy to see that disorganized, inefficient people are vulnerable to stress. Time management techniques can help people learn to change some of the events that lead to stress reactions.

For many individuals their work and social life can or has become a series of deadlines and time commitments. These people react to time with the feeling that they "must" do something (or a number of things) before some deadline (Albrecht, 1979). Often they feel that their lives are a series of unending and inflexible demands. They tend to believe that there is a shortage of time and it is not possible to meet all the demands and as a result, they experience stress.

Individuals can gain greater control of their time by learning to be better organized. The key to being organized is learning to plan. Without planning it is impossible to predict, prepare for, and cope with the future. Planning is the process of deciding what needs to get done and how it is

going to get done. For most people, effective time use involves eliminating unnecessary chores and tasks from their day and streamlining all the things they have to do in order to free up more time to do what they want to do (Leatz, 1981).

The method of planning used for this handbook follows the guidelines established by Alan Lakein (1973). The process involves three specific steps:

1. Selection of goals.
2. Deriving objectives from goals.
3. Selecting activities for the achievement of objectives.

The selection of goals begins by asking the question "What do I want out of life?" Individuals should answer this question in terms of broad general categories. They should think about all the things they would like to achieve, obtain or experience, and then list them. Everything should be included even if it is not realistic or sensible. Such goals could include having many friends, owning a new sports car, making parents proud, being the star of the school tennis team, travelling to Australia and skiing the Swiss Alps.

Once the list is completed, individuals should go back and examine it. They should look for goals that are not within their power to achieve. Goals like skiing the Swiss Alps, owning a new sports car and travelling to Australia would be unrealistic for most high school students and as a result spending much time trying to achieve these goals would not be time-cost effective. After individuals have scrutinized their list of goals to make sure that all the goals are achievable, they should rank-order the goals. They should plan to work only on the top three priority goals at a time.

The refined list of goals can now be used to derive a set of objectives for each of the goals. Objectives are specific, concrete outcomes that



further progress toward their goal. For example, the goal of being the star of the school tennis team can be broken down into the following objectives: being in top physical condition, having a powerful serve, consistent groundstrokes, a good net game and knowing sound singles and doubles strategy.

Objectives perform the important service of allowing individuals to break up the larger, sometimes unwieldy goals, into smaller, more manageable pieces. They also help measure the progress toward their specific goals.

Once individuals have a set of precise, clear objectives, they are ready to select specific activities for the achievement of each objective. Well-stated objectives often suggest the activities necessary to accomplish them. The objective of being in top physical condition can be accomplished by good nutrition habits and by adequate rest and training programs for cardiovascular fitness, muscle strength, speed and agility.

The best way to manage time is to plan each day's necessary activities. Essential activities such as eating and sleeping and routine activities such as getting out of bed and reading the morning paper are everyday tasks that are not normally thought much about, yet they fill much of the day. It is important that individuals recognize that they are spending most of their time on routine tasks and that in fact there is little time to work on life goals. It is important to remember that to increase the likelihood of accomplishing important lifetime goals, time must be planned for them each and every day (Lakein, 1973).

No matter how busy individuals are, they should always make time to plan. The less time there is to spare, the more important it is to plan time carefully. People who fail to plan may do all of their essential and routine activities but they probably will have little free time, if any, to schedule

their priority activities. Planning is usually done best first thing in the morning or at the end of the day. There are advantages for individuals to plan first thing in the morning when they are fresh, and there are also advantages to plan in the evening when they have a clear perspective of what needs to be done the next day. Lakein (1973) suggests that people plan in the morning as well as in the evening. This type of organizing allows people to fit more priority activities into their schedule while at the same time helping prevent trivial interferences. Planning should be done in the form of "To Do" lists. A "To Do" list should include all you have to, want to, expect to and need to do for the next day. Every task, chore, errand, appointment, meeting, and special event they want to accomplish in the day should be included. When the list is completed the following symbols can be used to describe each item:

- "A" for activities that individuals absolutely have to do, priority activities.
- "B" for things individuals want to do.
- "C" for things individuals should do.
- "D" for things that do not necessarily need to be done, but that individuals want to do if time permits.

Using a day-by-day appointment book or calendar, individuals are now ready to start scheduling the items from their "To Do" list. Scheduling means more than just fitting into the hours available all the things that must be done: meetings, appointments, or deadlines. It means including all the "A" and "B" items from the "To Do" list in their plans for the day. The "C" and "D" items should only be done if all the "A" and "B" items have been completed. Chances are that the "C" and "D" activities are not that important anyway or they would have been "A's" or "B's". If there is more

than one "A" priority item, then they should be ordered, the more important one becoming "A-1", the next becoming "A-2" and so on.

Once individuals have implemented this type of time management planning into their lives, they tend to be much more efficient and effective. It is worth noting that when starting a time management plan, people are bound to "overbook" themselves and as a result not accomplish everything on their list. It is a good idea, at least initially, to err on the side of scheduling too few "A" and "B" items because then a sense of satisfaction from completing them can be derived. If, however, an "A" or "B" item does not get accomplished it should simply be moved to the list for the next day. If several days go by and individuals still have not taken care of an "A" or "B" task, it is time to reassess its priority rating.

One of the obstacles most people face in trying to implement their time management plans is procrastination. Individuals are procrastinating when they have decided on a good "A-1" activity, validated their choice, and then when time is found, spend it on a lesser "B" or "C" activity. Individuals most often procrastinate on overwhelming "A-1" and unpleasant "A-1" items. They will often postpone an overwhelming "A-1" because it seems too complex or too time consuming. These people tend to avoid unpleasant "A-1" items not because they are necessarily complex or time consuming but rather because they are afraid of the consequences.

People can learn to avoid procrastinating over overwhelming "A-1" items by using the time they have available to start on an "A-1" task. It often seems unrealistic and senseless to spend just a few minutes on a large "A-1" activity so many use the smaller spaces of time for easy "C" or "D" activities. On the surface, this does not seem like poor time-management practice except for the fact that a person's day is typically divided into

bits and pieces; large blocks of uninterrupted time are a comparative rarity. If individuals consistently choose "C" and "D" tasks to fill these small time units rather than beginning the difficult "A-1" task, then they are procrastinating, avoiding what is really important.

The key to getting overwhelming "A-1" tasks under control is to start as soon as the "A-1" task has been identified. An excellent way to commence is to turn an overwhelming activity into "Swiss-Cheese" by poking some holes in it. Lakein (1973) refers to these holes as "instant tasks". An instant task requires five or less minutes of time and makes some sort of hole in an overwhelming "A-1" task. Individuals need to make a list of "instant tasks" and then prioritize these so that when the time is available, they can start working through the overwhelming task.

The two underlying assumptions of the "Swiss-Cheese" approach is that it is possible to start something in five minutes or less and that once started, people have given themselves the opportunity to keep going. The "Swiss-Cheese" approach often makes it possible to achieve surprising inroads even on a complex project (Lakein, 1973). After making ten or twelve holes in an overwhelming "A-1", the task often turns out to be much less difficult than expected.

Learning to overcome the tendency to procrastinate when faced with unpleasant "A-1" tasks is a different problem. All too often people avoid doing important things because they are afraid of making a mistake, feeling guilty, hurting themselves or others, being rejected, taking on too much responsibility, or confronting the unknown. If individuals can conquer their fear they can do the unpleasant "A-1" tasks (Lakein, 1973).

To overcome fear, people must ask themselves of what they are afraid. They need to make a list of possibilities and single out the fear that is

most likely causing the avoidance. Once they have determined their specific fear, they must confront that fear directly. This is often more difficult than it appears, but individuals must decide what the worst thing would be if they worked toward their "A-1" task. If the task is really an "A-1" priority then it probably would be worth facing the possible negative consequences; if not, then the task needs to be re-evaluated.

When individuals are at decision time and they suspect they are about to procrastinate on an unpleasant "A-1", they need to take a few minutes to contemplate the consequences of delay. All too often the longer the task is delayed, the more unpleasant it becomes, consequently the best thing is to do it and get it out of the way.

A final hint on initiating unpleasant "A-1" tasks is a technique called "stressing the benefits" (Lakein, 1973). A list of all the possible benefits of doing the "A-1" activity should be made. The benefits that can be expected are of two types: (1) pluses that would start when the "A-1" was done, and (2) minuses that would stop when the "A-1" was done. Once individuals begin to "stress the benefits", the "A-1" activity often becomes so attractive that it no longer seems unpleasant.

It is also important to remember that while a well thought out plan with clearly defined goals and priorities is a major step towards gaining control of their time, even good planners often manage to forget one detail: a plan, like any tool, is valuable only if it is used (Lakein, 1973). Implementing time management techniques can be a very useful stressor management skill.

#### Suggested Readings

Albrecht, K. Stress and the manager, making it work for you.  
Englewood Cliffs: Prentice-Hall, 1979.

- Bliss, E. Getting things done/the abc's of time management  
New York: Scribner, 1976.
- Hope, J. Counselling workshop for women with multiple roles.  
(Special project for Education 881) Simon Fraser University  
1982.
- Lakein, A. How to get control of your time and your life.  
New York: McKay Co., 1973.
- Leatz, C. A. Unwinding: how to turn stress into positive energy  
Englewood Cliffs: Prentice-Hall, 1981.
- Woolfolk, R. L., & Richardson, R. C. Stress, sanity & survival.  
New York: Signet, 1979.

Assertive skills. Assertive behavior has been defined as "behavior which enables people to act in their own best interest, to stand up for themselves without undue anxiety and to exercise their rights without denying the rights of others" (Rudestam, 1980). Since the 1970's, assertiveness training courses have become very popular. These courses teach individuals to defend their rights and to avoid being manipulated by other people. The premise of assertiveness training is that when individuals come into conflict, it is best for them to speak out in a reasonable and balanced fashion, making it clear what they desire and expect from the situation. The assumption is that individuals can reduce the pressure of social situations by learning to assert themselves.

Assertiveness is not aggression. Aggression is individuals demanding their own way, doing whatever is necessary to meet their own needs. Assertiveness is individuals defending their rights while respecting the rights of others. These people are capable of negotiating and compromising to fulfill the needs for all concerned.

According to M.J. Smith (1975) everyone has certain rights. The first

step to becoming more assertive is to recognize the basic rights of human beings (Leatz, 1981). These rights are summarized in Table 4 (Smith, 1975). Learning to become assertive takes time and practice. Those wanting to increase their assertiveness can approach the problem from a cognitive, affective or behavioral perspective.

Cognitive approaches build on the observation that both assertive and non-assertive people can generally identify what an assertive response would be in a given situation. However, people with low assertiveness are less likely to exercise an assertive response when threatened. Individuals who want to become more assertive need systematically to identify situations in which they would like to act assertively, but tend not to. These situations should be recorded in a diary, focusing on what happened, when, where, and with whom. Such systematic observations help individuals diagnose areas of strength and weakness, thus establishing target goals.

Non-assertive people tend to use a higher ratio of negative self-statements to positive self-statements than do assertive individuals (Rudestam, 1980). The non-assertive person is more apt to say "If I say this, the other person will be hurt" or "What would he think of me if....?". The assertive individual is apt to say "I'm free to say no" or "It's reasonable to have a choice". Over concern for someone else's reactions is a predictable obsession in non-assertive people.

The technique of cognitive restructuring teaches people to make a careful analysis of their self-talk and their actual rights in a given situation. Once they have identified their invalid assumptions and replaced them with more reasonable alternatives, their anxiety will be reduced and as a result their potential for assertive responses will be increased.

Affective approaches acknowledge that the primary affective obstacles to

Table 4  
List Of Human Rights

All individuals have the right to:

Judge their own behavior, thoughts, and emotions without assistance from anyone else and to accept any and all consequences and responsibilities for them.

Choose not to give anyone reasons or excuses to explain or justify their behavior.

Judge for themselves alone whether they have the responsibility to solve someone else's problem and whether they wish to do so.

Change their mind whenever they want without owing anyone an explanation.

Make mistakes and accept the consequences and responsibilities for them.

Say "I don't know" and accept the fact that it is impossible for anyone to know everything.

Create their own self-esteem without relying on the good will and regard of others.

Make their own decisions, based on their needs, values, goals, priorities, resources and situation.

Ask what other people's needs and wants are and then to decide if they want to fulfill them.

Decide that they do not care about a situation or problem, without owing anyone an explanation or apology.



acting assertively are anxiety and guilt about the potentially negative consequences of their assertive actions. Individuals need to identify the feelings they experience when they fail to act assertively. Once these feelings are identified, relaxation or meditation techniques can be used to facilitate new behavioral responses. Relaxation and meditation techniques can help people discriminate their anxiety level in problematic situations so that they can pause and relax before engaging in assertive behaviors.

Individuals experience bodily tension more often when they are not assertive than when they are assertive because they are not acting on their feelings or impulses. Tension and anxiety occur most often as a function of incomplete or suppressed actions or statements in an interpersonal context (Rudestam, 1980). People experience the physiological reactions of increased pulse rate, queasy stomach, pounding heart, weak limbs, perspiration, blushing and general fatigue in anticipation of imagined consequences of being assertive. These physiological reactions can be desensitized using relaxations. Systematic desensitization can be used to gain confidence in potentially stressful situations.

Behavioral approaches acknowledge that although sometimes a lack of assertiveness is a function of general timidity or reserve, at other times specific behavioral deficits may be involved (Rudestam, 1980). Such deficits may include the inability to keep eye contact while talking, to make small talk or to initiate confrontations. The behavioral approach to teaching assertiveness involves breaking down complex behaviors into smaller units and then creating new, more assertive responses in increasingly threatening situations. The new responses are usually role played or rehearsed in the presence of supportive others prior to trying them out in the real world.

The ultimate key to combating non-assertiveness is action and practice

using the cognitive, affective and behavioral approaches. People should begin with situations that are not overly threatening and in which their chances of success are optimal.

The general points found in Table 5 will be helpful in setting up an assertiveness program (Leatz, 1981, p90).

It should be remembered that assertiveness is not selfish. Assertive individuals are active listeners, doing their part to keep communication flowing smoothly, helping others to express themselves as well as protecting their own rights, needs and wants. Since stress symptoms can be produced when individuals keep strong feelings inside and do not have their needs met, practicing assertiveness may be an effective way to control stress.

#### Suggested Readings

Cormier, W. H., & Cormier, L. S. Interviewing for helpers.  
Monterey: Brook/Cole, 1979.

Kanfer, F. H., & Goldstein, A. P. Helping people change.  
New York: Pergamon Press, 1979.

Leatz, C. A. Unwinding: how to turn stress into positive energy.  
Englewood Cliffs: Prentice-Hall, 1981.

Rudestam, D. E. Methods of self-change. Monterey: Brooks/Cole, 1980.

Smith, M. J. When I say no, I feel guilty. New York: Bantam Books, 1975.

Table 5  
Guidelines For Assertiveness Programs

Assertive behavior is often confused with aggressive behavior; however, assertion does not involve hurting the other person physically or emotionally.

Assertive behavior aims at equalizing the balance of power, not in "winning the battle" by putting down the other person or rendering him/her helpless.

Assertive behavior involves expressing your legitimate rights as an individual. You have a right to express your own wants, needs, feelings, and ideas.

Remember: other individuals have a right to respond to your assertiveness with their own wants, needs, feelings, and ideas.

An assertive encounter with another individual may involve negotiating an agreeable compromise.

By behaving assertively, you open the way for honest relationships with others.

Assertive behavior not only is concerned with what you say, but how you say it.

Assertive words accompanied by appropriate assertive "body language" make your message more clear.

Assertive body language includes the following:

- a. maintaining direct eye contact.
- b. maintaining an erect posture.
- c. speaking clearly and audibly.
- d. making sure you do not have a whiney quality to your voice.
- e. using facial expression and gestures to add emphasis to your words.

Assertive behavior is a skill that can be learned and maintained by frequent practice.

Communication Skills. Poor communication skills can lead to hurt feelings, misunderstandings and conflicts. Learning skills necessary for effective communication can provide people with an essential stressor management technique.

Communication is a process in which one individual stimulates meaning in the mind of another by means of verbal and non-verbal messages (Hurt, 1978). Effective communication demands that individuals clearly understand how this process works. People do not only communicate with their words and actions but also with the tone of their voice, phrasing and types of words they use, expressions, movements of their limbs or muscles, energy level, type and style of clothing and personal grooming. Everything individuals do or say, or do not do or say communicates volumes.

When individuals communicate, one person sends the signal and another person receives it. Unfortunately, it is not quite that simple because when people communicate they bring into the communication their bodies, brains, values, expectations of what is going to happen in a particular encounter, their ability to communicate, and their remembered past experiences with similar situations. It is also important to recognize that communication can occur accidentally as well as intentionally (Hurt, 1979).

Accidental communication occurs when individuals stimulate meaning in the minds of others without intending to do so. This type of communication occurs quite often and it sometimes occurs without individuals being aware that they are sending messages. Most accidental communication is non-verbal and is seen as being a fairly honest reflection of what people are really thinking or feeling. It is difficult to check the accuracy of accidental communication.

Intentional communication takes place whenever individuals consciously

and deliberately encode messages for the purpose of stimulating some specific meaning in the minds of others. Intentional communication has taken place when the encoded message has been decoded so as to produce the desired meaning. It is much easier to check the accuracy of intentional communication.

Communication is a complex process. Clear, accurate communication is a difficult, but not impossible task. People can learn to communicate more effectively by following some basic rules. Keeping the process as simple as possible and within the ability of most individuals, communication can be divided into two parts: sending messages and receiving messages.

Research supports the conclusions that there are some specific skills involved in sending effective messages (Lin, 1973). People should attempt to incorporate the following skills into their communications:

Clearly "own" messages by using personal pronouns such as "I" and "my"; personal ownership includes clearly taking responsibility for the ideas and feelings that are expressed. Individuals "disown" their messages when they use such terms like "most people" or "some individuals". Such terms make it difficult to tell whether or not people really think and feel what they are saying or whether they are merely repeating the thoughts and feelings of others.

Make messages complete and specific. Individuals should include clear statements of all information necessary for the receiver to comprehend the message. Being complete and specific may seem obvious, but often people will not communicate the frame of reference they are taking, the assumptions they are making, the intentions they have in communicating or the leaps in thinking that they are making. As a result, others may hear the words, yet not comprehend the meaning of the message.

Make verbal and non-verbal messages congruent with each other. Every face-to-face communication involves both verbal and non-verbal messages. Usually these messages are congruent; for example, if individuals are expressing appreciation, they tend to be smiling and expressing warmth non-verbally. Communication problems arise when verbal and non-verbal messages are contradictory. If people were to express appreciation for help with sneers on their faces and mocking tones in their voices, the meaning that would be received would be confused because of the two different messages being sent simultaneously.

The following are a number of suggestions that can facilitate effective communication. Be prudent in repeating messages more than once and using more than one channel of communication. When communicating use such methods as pictures, written messages as well as verbal and non-verbal cues,

The following are a number of suggestions that can facilitate effective communication. Be prudent in repeating messages more than once and using more than one channel of communication. When communicating use such methods as pictures, written messages as well as verbal and non-verbal cues, this will help ensure that the receiver understands the messages. Ask for feedback concerning the way messages are being received. In order to communicate effectively, people must be aware of how the receiver is interpreting and processing the messages. The only way to be sure is to seek feedback as to what meanings the receiver is attaching to the messages. Make the message appropriate to the receiver's frame of reference. The same general information should be explained differently to an expert in the field than to a novice, to a child than to an adult, to a boss than to a co-worker. Describe feelings by name, action or figure of speech. When communicating feelings it is especially important to be descriptive.

Feelings can be described by name ("I feel happy"), actions ("I feel like singing and dancing"), or figures of speech ("I feel like I'm floating on a pink cloud"). The description will help communicate feelings clearly and unambiguously.

Following the above suggestions will help people send messages effectively, but developing sending skills meets only half the requirements. For communicating effectively, receiving skills must also be developed.

The skills involved in receiving messages deal with giving feedback about the reception of the message in ways that clarify and aid continued discussion. Receiving skills have two basic parts: (1) communicating the intention of wanting to understand the ideas and feelings of the sender, and (2) understanding and interpreting the sender's ideas and feelings. The principal barrier to building effective communication is the tendency most people have to judge, evaluate, approve or disapprove of a message they are receiving. For instance, the sender makes a statement and the receiver responds inwardly or openly with "I think you're wrong", "I don't like what you said", or "That is the greatest (or worst) idea I have ever heard!" Such evaluative receiving will make the sender defensive and cautious, which decreases the openness of the communication.

The tendency to offer evaluative responses is common in almost all conversations. It becomes a special problem in situations where feelings and emotions are involved. The stronger the feelings, the more likely it is for individuals to evaluate each other's statements solely from their own point of view. It becomes very important for receivers to indicate that they want to understand fully the sender before they make an evaluation. The specific receiving skills are paraphrasing, perception checking for feelings and negotiating for meaning.

The most basic and important skill involved in receiving messages is paraphrasing. Paraphrasing involves rephrasing the words of the sender; it should be done in a way that indicates an understanding of the sender's frame of reference. When paraphrasing people should speak for themselves only after they have first restated the ideas and feelings of the sender accurately and to the sender's satisfaction. Individuals should avoid changing messages or indicating value judgements. Instead, they should try to understand the sender's feelings and the exact meaning of the message. The accuracy of the interpretation can be verified by asking: "Here is what I understand your feelings to be; am I accurate?"; "This is what I think you mean is, am I correct?". If the interpretation is inaccurate, the sender can restate the message until the receiver understands the essential meaning (Johnson, 1975).

People who use the skills for effective communication have more control over their interpersonal dialogues and as a result reduce the likelihood that communication will be a potential stressor.

#### Suggested Readings

- Bandura, A. Psychological modeling: conflicting theories.  
Chicago: Addine, 1971.
- Hurt, T. Scott, & M., McCroskey, J. Communication in the classroom.  
Massachusetts: Addison Wesley, 1978.
- Johnson, D. Reaching out: Interpersonal effectiveness and self-actualization. Englewood Cliffs: Prentice Hall, 1972.
- Lin, N. The Study of human communication. New York:  
Bobbs-Merrill, 1973.
- Satir, V. People making. Palo Alto California:  
Science and Behavior Books, 1972.



Vocational planning. One of the biggest decisions facing young people today is choosing a career. The decisions that are made will determine future lifestyles, what they will do at work and in leisure time, how much they will earn, who their friends will be and where they will live (Petit, 1982). Unfortunately, many people do not have the skills necessary for making effective career decisions.

The unprecedented rate of technological and scientific changes over the last few years, coupled with the current economic situation, makes career choices a very confusing issue. In the past, people could expect an occupational role to last a lifetime. However in today's changing world, the majority of twenty year olds can be expected to change jobs six or seven times during their working lives (Carney, Wells & Streufert, 1981). The pressures these demands create often lead to stress.

People need to be able to plan for the future but at the same time remain open to change as their own needs and goals, as well as the needs and goals of society, evolve over time. In order to meet these demands individuals must develop the skills that will prepare them for a lifetime of career decision making. Regardless of whether they are making immediate career choices or planning for the future, there are five essential career planning skills that facilitate making wise and realistic choices: (Carney, Wells & Streufert, 1981).

1. Decision making skills.
2. Self-assessment skills.
3. Occupational explorations skills.
4. Job campaigning skills.
5. Work adjustment and career expansion skills.

1. Decision making skills. The ability to make effective decisions is an integral part of vocational planning. The guidelines given earlier are also useful for making vocational decisions (see problem solving).

2. Self-assessment skills. The ability of people to pull together the many pieces of information they have about themselves and create a picture of who they are occupationally. Some personal factors to be taken into consideration include interests, values, abilities, aptitudes, and temperaments. Other more general factors include decisions about which types of physical activities and environmental conditions are most desirable. A final consideration is the amount of education or training that people are willing to undertake in order to enter a specific occupation. The result of this self-assessment prepares them for some meaningful occupational exploration.

3. Occupational Exploration Skills. This is the ability to gather and assess occupational information. All occupations in Canada have been divided into 23 groups or families of occupations. There are hundreds of separate occupations in each group which all require roughly the same interests and abilities. Table 6 lists all of the occupational groups.

4. Job campaigning skills. These are skills that enable people to market or sell their skills to prospective employers. Individuals know what they have to offer employers and they need to transfer this information. A well documented resume is an effective way to provide prospective employers with this information.

When preparing a resume people should try to put themselves in the place of their prospective employer. It is important for the person who is in a position to do the hiring to know work history, educational background, personal characteristics and aptitudes.

Table 6  
Canada Classification Of Occupation  
Major Groups

Management and Administration.

Natural Sciences, Engineering and Mathematics.

Social Science and Humanities.

Religion.

Teaching.

Medicine and Health.

Artistic, Literary and Performing Arts.

Sports and Recreation.

Clerical Work.

Sales.

Service.

Farming and Animal Husbandry.

Fishing, Hunting and Trapping.

Forestry and Logging.

Processing.

Machining.

Product Fabrication, Assembly and Repair.

Construction.

Transport Equipment Operating.

Material Handling

Craft and Equipment Operating.

When planning a resume it is important to remember that personnel or employment managers have many resumes to read. The resume should be neat, clear and well-organized so as to provide all necessary information as briefly as possible. Before starting to write their resumes, people should ask themselves the following questions: What kind of job do I want?; What firms may have openings in my kind of work?; Which parts of my training and experience relate to the job I am seeking?; Which of my personal assets (health, appearance, speech, social conduct and attitudes) will help attain an interview for the job I want?.

The resume is often the deciding factor in whether or not individuals "get a foot in the door". It should tell a complete story specifically and accurately -- on a single sheet of paper if possible.

The next step is to make a list of all prospective employers. Sources of information include the Canada Employment Center, trade journals, newspapers, yellow pages, friends and relatives. People should now have a good supply of clear photocopies of their resumes and take them, in person, to every company on their list and ask for an interview. It is important to remember that people stand a much better chance of being interviewed and hired if they deliver their resume in person. If there is an out-of-town job in which someone is really interested, he/she should use the same approach. If this is not possible the resume should be sent with a covering letter. The purpose of the covering letter is to interest employers. The first step is to have the employer read the resume. Table 7 offers some points to keep in mind when preparing covering letters.

Another useful job campaigning skill is proper preparation for the interview. Table 8 offers some useful guidelines.

Additional skills are necessary when due to special circumstances

Table 7  
Guidelines For Cover Letters

Address the letter to a specific individual by name if possible.

The first twenty words are important. They should attract the employers attention.

Use simple, direct language and correct grammar.

Keep it short. The covering letter should be a summary of what the individual has to offer. It should act as an "introduction" to the resume.

The letter should reflect the individual's personality but individuals should avoid appearing aggressive, overbearing, familiar or humorous. The letter is to a stranger about a subject that is serious.

Table 8  
Preparation For Interviews

Learn about the firm, its products or services before applying.

Bring an extra copy of their resume so that they can refer to it during the interview.

Have clearly in mind what they think they have to offer an employer.

Allow themselves enough time so that they don't arrive at their appointment late and breathless.

Remember that cleanliness, neatness and good grooming are important.

Greet the employer or interviewer cheerfully and with dignity.

Be polite and assume an air of confidence.

Look at the person to whom they are speaking and maintain poise and self-control.

Breathe deeply, speak deliberately and loud enough to be easily heard.

Answer questions in a straightforward way.

Inquire about a specific job or jobs.

Outline their training, experience, ability and interests briefly.

Emphasize what they think they can contribute to the firm. Individuals should avoid mentioning how much they need to work.

Leave the matter of wages, hours and benefits for consideration after the job has been offered. Changes in these will be explained without their asking.

Comply cheerfully with requests to fill out further application forms, furnish references, take a physical examination or vocational test.

Leave promptly when the interview is over, with a good natured courteous farewell.

individuals cannot pursue career goals immediately. The following are suggestions that may be useful in that situation. Stay active. Keep busy. Individuals will find that taking a part-time job will fill their time, earn an income, and provide an opportunity to meet new people (Bronowski, 1981). Individuals that can say they are working part-time on a temporary basis while looking for a good job demonstrate that they are assertive and enterprising. If the part-time work is in a field related to their ultimate career goal, it is a bonus. Pursue any and all leads. Letters, phone calls, and personal contact are all important parts of the job search. As a general rule, the job searcher will have to make thirty contacts with potential employers before receiving much feedback (Bronowski, 1981). If people are aware of this fact, they can alleviate some of the anxiety of not getting a job as quickly as they would like. Individuals would be better advised to make thirty contacts in a month by going out and looking for a job and not waiting for one to come to them. Canada Employment publishes an excellent self-help manual to assist people in acquiring job search skills. The manual is entitled Moving on to a Job and is available through most Canada Employment Centers. Also, the Creative Job Search and Job Club material developed by the Occupational and Career Analysis and Development Branch of Canada Employment are excellent resources for school counsellors and classroom teachers.

5. Work adjustment and career expansion skills. These skills encompass the final stage of vocational planning. This involves the ability to manage the interpersonal demands of the jobs and to promote career development by taking advantage of learning opportunities. The four previously discussed skills of decision-making, self-assessment, information gathering and job-search strategies will be useful in job performance and expansion, when

used in conjunction with work adjustment skills.

Getting into a new environment begins with the initial task of observing and learning the hidden rules, pecking order, dress habits, conversational customs and individual roles. A comfortable fit into a changing work group involves learning to interact pleasantly and tolerantly with all types of people. It is interesting to note that the vast majority of people who fail in jobs do so because they fail to relate well with other people (Dunphy, 1973). Useful individual qualities include patience, kindness, tolerance, discretion, tact and when all of the above fail, the ability to handle conflict.

Some general suggestions provided by Canada Employment and Immigration Canada's Guide for the Job Hunter include: learn to get along with people and cultivate a sense of humor. Practice thinking things through and taking time for important decisions. Keep an open mind. Hardening of attitudes may do people as much harm as hardening of the arteries. Control emotions. Outbursts of temper could cost individuals their job. Recognize limitations, but develop abilities.

Career expansion skills include moving up, across or out. Achievement by moving up the ladder is a common standard for success for North Americans. The dream of the unskilled laborer who through diligence and willingness to acquire new skills is eventually promoted all the way to the company presidency is believed by many. As a new employee, potential for promotion within the organization will be measured by trustworthiness and capacity to take on increasingly greater levels of responsibility for complex tasks and supervising others. Tolerance to stress and willingness to continue professional education will play an important role in determining how successful people are at accomplishing this form of growth.



A second form of professional growth involves rotating across a series of functions within the organization. Rather than moving upwards, individuals may move horizontally across positions at the same level. Many management-training programs use this form of growth as a means of exposing new employees to the different facets of an organization. A special advantage of making a series of lateral moves is that workers are put in touch with many new learning opportunities, keeping them professionally fresh. These experiences can be a valuable asset when seeking a promotion or new job. Moving on by staying on, published by Canada Employment is an excellent self-instruction manual dealing with the above concerns.

In summary, it is a fact that people will change careers a number of times during their lifetime. These changes sometimes occur because workers want to try different careers, but all too often these changes occur out of necessity. Many jobs in our society are being phased out or changed due to new technology. To reduce the potential stress associated with these career changes people can learn some specific skills which will enable them to take a more creative and effective approach to vocational planning.

#### Suggested Readings

Bolles, N. What color is your parachute? Berkley: Ten Speed, 1980.

Bryant, J. You can get a better job. Oakville, Ontario: T.M.C. Publishing, 1974.

Career News Monthly newsletter distributed by: Employment and Immigration Canada, Box 11145 Royal Centre, Vancouver B.C. V6E 2R8.

Carney, C.; Wells, F.; & Streufert, D. Career planning skills to build your future. New York: Litton Education Publishing, 1981.

Dickhut, H. The professional resume and job search guide.  
Englewood Cliffs; Prentice-Hall, 1981.

Jackson, T. Guerilla tactics in the job market New York:  
Bantam Books, 1978.

Lalonde, G. 4 minutes to the job you want Toronto, Ontario:  
McGraw-Hill Ryerson, 1980.

Conflict management skills. Conflict occurs at all levels of society: among nations and within nations; among organizations and institutions and within organizations and institutions and within interpersonal relationships. Unnecessary and prolonged conflict is a primary cause of stress for the protagonist and unfortunately this type of conflict seems to be widespread and increasing in frequency (Albrecht, 1979).

Before people can learn to deal with conflict effectively they must have a clear understanding of what conflict is. For the purposes of this discussion, conflict is said to exist whenever incompatible activities happen (Likert & Likert, 1976). An activity that is incompatible with another activity is one that prevents, blocks, interferes with, injures or in some way makes the second activity less likely or less attractive. Incompatible activities may originate in one person, between two or more people or between two or more groups. If one group decides to win a soccer game and another group also decides that it wants to win, then the groups can be said to be in conflict.

Conflict has been said to cause divorce, the end of friendships, psychological distress, social disorder, violence and war (Likert & Likert, 1976). It should be noted that it is not the presence of conflict that causes all these unfortunate things but rather they are the result of the ineffective management of conflict. For stressor management purposes, people

need to adopt the following general assumptions about conflict:

1. Conflict (personal, interpersonal, organizational and institutional) is inevitable and natural.
2. Conflict dealt with openly and managed effectively is healthy.
3. The open exploration of differing ideas, perspectives and values leads to more effective decision-making.
4. Effective strategies and skills for the management of conflict are known and can be learned (Likert & Likert, 1976).

In order to learn to avoid unnecessary conflict and deal effectively with inevitable conflicts, it is important to first develop an awareness of the basic elements of unnecessary conflicts and the social conditions that foster them. The following are the antecedent conditions which predispose individuals to engage in unnecessary conflict (Albrecht, 1979).

Ambiguous jurisdiction -- Conflict will be greater when the limits of each party's jurisdictions are ambiguous. This includes poorly defined jobs, tasks, responsibilities and ranges of authority. When two parties have related responsibilities for which actual boundaries are unclear, the potential for conflict between them increases.

Conflict of interest -- Conflict will be greater where a conflict of interest exists between the parties. One such situation is a competition for scarce resources.

Communication barriers -- Conflict will be greater when barriers to communication exist. It appears that if parties are separated from each other physically or by time, the opportunity for conflict increases.

Dependency of one party -- Conflict will be greater where one party is

dependent upon another. Where parties are dependent, they must rely on each other for performance of tasks or for the provision of resources.

Differentiation in organization -- Conflict will be greater as the degree of differentiation in an organization increases. In some instances interdepartmental relationships place members at cross purposes; traditional examples of this are sales versus engineering, production versus quality assurance, nursing versus administration and the district office versus the regional headquarters. There is evidence that the level of conflict is highly correlated to the number of organization levels (Likert & Likert, 1976).

Regulations concerning advancement -- Conflict will be greater if the regulations concerning advancement are unclear or if the standards for advancement are arbitrary. Inconsistent patterns of rewarding accomplishment and competitive organizational politics also result in greater chance of conflict.

Uncertain future -- Conflict will be greater if there is confusion or uncertainty about upcoming major changes or upheavals in the organization. As well, conflict occurs when severe economic downturn jeopardizes the job security of the organization members or when individuals are unable to define their future roles and interactions.

Unresolved prior conflicts -- Conflicts will be greater as the number of unresolved conflicts increases. If there are a number of unresolved prior conflicts it increases the likelihood that future interactions will lead to conflict.

When dealing with conflict it is important for individuals to understand that the following are symptoms and not causes of conflict: poor communication (lateral and vertical), inter-group jealousy and hostility,

interpersonal friction and low morale.

Equipped with the above information, people are now ready to deal with the conflict. When faced with a conflict situation they need to decide whether they are going to attempt to resolve the conflict or manage the conflict. Conflict resolution occurs when all parties are satisfied with the outcome. Conflict management occurs when the disruptive, destructive conflict is directed toward more purposeful, positive problem-solving approaches.

There are three commonly used strategies for dealing with conflict outlined in Table 9 (Gordon, 1974). By implementing these strategies it is possible to avoid the associated pitfalls.

Much research exists on the effects of resolving conflict by each of these methods. The findings are listed in Tables 10, 11, and 12. (Gordon, 1974)

Method one and two focus on the symptoms of the conflict, not the causes of conflict. The win-win method approaches a conflict-of-needs situation so that the people in conflict join together in search of a solution acceptable to both -- one that requires no one to lose. The win-win method of conflict resolution is a process. In this method, a conflict is defined as a problem to be solved, and solutions are then sought. Conflicts are seen as healthy, nondestructive, natural events.

A good general approach for those who are attempting to minimize conflict or resolve existing conflict is to follow four basic rules or procedures. Individuals in authority need to remember that it is not their job to solve problems or eliminate conflict but rather to help teach the conflicting individuals how to handle them most constructively. They should try to establish and maintain a low-conflict, low-stress climate with

Table 9  
 Characteristics Of Three Commonly Used Strategies  
 For Resolving Conflict

Win/Lose	Lose/Win	Win/Win
Exercising authority Mental or physical power Ignoring others Majority rule Minority rule	Compromise(surrender or permissiveness) Pay-offs Third Party arbitration Rules and regulations imposed	Consensus Task focus-defeat problem, not each other Avoid trade-offs Integrative decision making Open climate

Table 10  
Effects Of Win/Lose Strategy

It can be quick and efficient in situations requiring emergency action.

It may be the only method of choice when a large number of people are involved, making it extremely difficult to talk things over.

It produces resentment and often strong hostility in the loser towards the winner.

It produces little motivation in the loser to carry out the solution. Often the loser only goes through the motions of implementing the solution.

It often requires heavy enforcement on the part of the winner. When the enforcer is not present, the losers do not comply.

It inhibits the growth of self-responsibility and self-direction, fosters dependence and the need to be told what to do.

It fosters compliance and submission mainly out of fear, and inhibits development of cooperation and consideration for the needs of others. Cooperation is never fostered by "making" individuals do something.

It inhibits creativity, exploration and innovation. These qualities seldom flourish in a climate of fear and repression.

It fosters low productivity, low morale, low job satisfaction and a high rate of turnover.

It inhibits the development of self-discipline and self-control.

It is less likely to produce a unique or creative solution.

It often makes the winner feel guilty.

It usually requires the winner to resort to power and authority to get compliance.

Table 11  
Effects Of Lose/Win Strategy

It can be quick - you just ignore the behavior, don't cause waves, get rid of the conflict by giving in.

It invariably produces resentment and hostility in the loser toward the winner.

It fosters in the winners, selfishness, lack of cooperation, lack of consideration for others.

It does not foster high productivity or high morale.

It makes the winners feel guilty about the losers not getting their needs met.

It makes the winners lose respect for the losers.

The losers are seen as weak, incompetent, - "doormat", and "easy mark".

It usually requires the winner to resort to using their power and authority.



Table 12  
Effects Of Win/Win Strategy

No resentment. When conflicts are resolved so no one loses, the resentment generated by the first two methods does not occur. Experience shows that a relationship gains strength when two people work through their differences and end up with a solution that meets the needs of both (Gordon, 1974).

Motivation increases to implement the solution. The "principle of participation" states that people are more likely to accept a decision and are more motivated to carry it out when they have participated in making the decision - as opposed to one in which they have been denied a voice.

Two heads are better than one. This method enlists the creative thinking, the brainpower and the experience of all persons concerned. The energies of the individuals is directed towards the common task rather than being in competition with one another.

No "selling" is needed in the win-win method. In the first two methods after the solution has been determined, the winner generally has to sell or make the loser accept the solution. In the win-win method both individuals are making the decision so that no selling is necessary.

No power or authority is necessary. Probably the most significant benefit of this method is that it eliminates the use of power. This method fosters relationships characterized by mutual respect, caring and trust. No-lose solutions bring people together and engender feelings of warmth.

cooperation being the general norm. When managing conflict, those in authority must isolate each significant conflict that does arise to a single, specific task issue or family of issues. It is important not to accept personality clashes but rather insist that the protagonist zero in on a concrete issue and its rational elements. The protagonists should be helped at applying a rational problem-solving model or procedure to the issue; they need to learn to go for a workable compromise.

In summary the objective, of conflict management is to turn conflict into purposeful argument or controlled conflict. By managing conflict in a constructive manner, the potential stress associated with the conflict can be greatly reduced.

#### Suggested Readings

- Albrecht, K. Stress and the manager. Englewood Cliffs: Prentice-Hall, 1979.
- Filley, A. Interpersonal conflict resolution. California: Scott-Foresman, 1975.
- Gordon, T. T.E.T. Teacher effectiveness training. New York: David McKay Co., 1974.
- Handy, C. Understanding organizations. New York: Penguin, 1976.
- Likert, R., & Likert, J. New ways of managing conflict. New York: McGraw-Hill, 1976.
- Monat, A., & Lazarus, R. Stress and coping: an anthology. New York: Columbia University Press, 1977.

Dealing effectively with children. Another potential source of stress is learning to deal effectively with children. Parents are confronted with the challenge of providing opportunities for children to grow to become responsible and self-reliant. Teachers are faced with a similar challenge in the classroom of bringing out the best in each of their students. Unfortunately most parents and teachers have not had the training in human relations to provide them with the necessary skills.

Thomas Gordon (1970) has developed two training programs to meet the above needs. The programs are designed to teach parents and teachers the basic principles and skills of effective human relations, honest interpersonal communication and constructive conflict resolution. Parent Effectiveness Training or simply PET was developed in 1970 and was followed in 1974 by Teacher Effectiveness Training (TET). These programs have been successfully used for more than ten years.

Before parents and teachers can become effective in using the skills used in PET and TET, it is essential that they have a basic understanding of the theory behind the skills. The PET theory is not a blueprint of effective parent-child relationships alone, but a general theory that applies to all human relationships -- husband-wife, boss-subordinate, teacher-student, counsellor-client or friend-friend (Gordon, 1976).

An important point to be made clear is that an adult-child relationship is no different from any of the others listed. In the eyes of some adults, children are not people. In order for the PET and TET programs to have any chance at success, adults must stop seeing children as a unique species and begin to perceive them as persons. They must begin to accept that how children behave is largely determined by what goes on in the adult-child relationship. Finally they need to begin to understand some fundamental

principles about all interpersonal relationships.

The following is a summary of the basic principles of the PET theory of human relationships:

One of the most commonly held beliefs about dealing with children is that an adult must be consistent. If adults are unaccepting of a certain kind of behavior on one occasion, then they must be unaccepting of the same behavior on another occasion or they will be inconsistent. People have been told that being inconsistent with children is unacceptable.

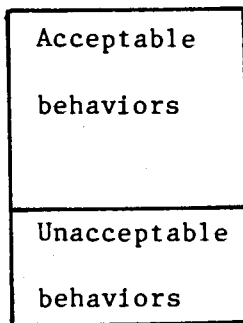
The myth is corrected very early in the PET course. Adults are taught that some behaviors are acceptable some days because of the way the adult feels, and that it is all right if at other times the same behaviors are not acceptable because the adult feels differently. In PET classes, adults are taught to visualize a rectangle or window through which they see all the behaviors of their children:

<p>All the behaviors of the child</p>
---

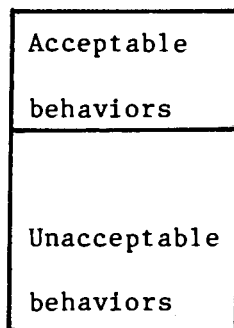
The adults are then shown how every adults' rectangle contains two different kinds of behavior, acceptable and unacceptable:

<p>Acceptable behaviors</p>	<p>pounding on a piano, adult rested and busy</p>
<p>Unacceptable behaviors</p>	<p>pounding on a piano, adult tired and resting</p>

The area of acceptance may change depending on the circumstances of the adults. On good days, if everything is going well, almost nothing will cause upset. On that day their rectangle might look like this:

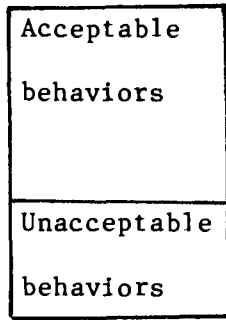


On a day when adults are upset or worried and everything seems to be going wrong, their rectangle might look like this:

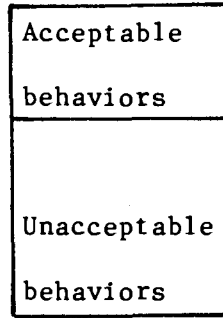


When adults understand this changing rectangle, they tend to accept that they are only human beings with their own changing moods.

Two other factors cause changes in adults' attitudes and behaviors towards children. One factor is that some adults find some children easier to get along with because of the personal characteristics of the child and/or the adult.

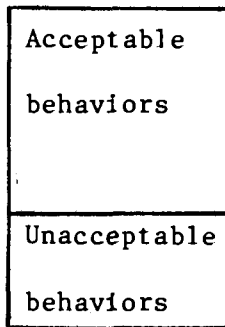


Child A



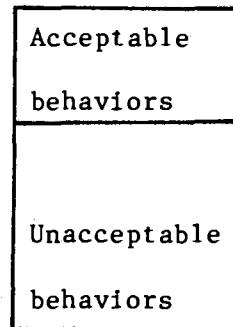
Child B

A second factor that affects adults' attitudes and behaviors toward children is the environment in which the behavior occurs. Some adults find that certain behaviors are acceptable in one environment but unacceptable in another:



Outside Environment

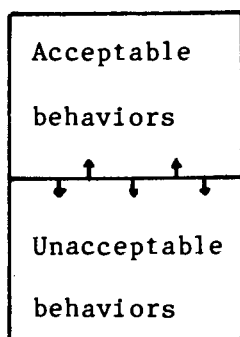
rowdy  
houseplay



Inside Environment

rowdy  
houseplay

In conclusion, adults, influenced by the three factors -- their own moods, the child's personality and the environment -- will be continually experiencing inconsistency of attitude and behavior toward children (Gordon, 1976). Within each adults' rectangle, the line dividing the area of acceptable behaviors and the area of unacceptable behaviors fluctuates as a result of the interaction of the three factors:



If adults can accept the fact that they will be inconsistent from day to day, they will eliminate much guilt and anxiety.

The principle of problem ownership is another core concept in the PET model and its importance cannot be overstated. The concept finds its place in PET because so many adults fall into the trap of assuming responsibility for solving problems that children own, rather than encouraging the children to solve their problems themselves (Gordon, 1976).

The rectangles used in explaining the inconsistency principled facilitates demonstrating the principle of problem ownership (Figure 3).

Acceptable behaviors	Behaviors causing child a problem	child owns problem	Helping Skills
	No problem		
Unacceptable behaviors	Behaviors causing adult a problem	adult owns problem	Confrontation Skills

Figure 3. Principle Of Problem Ownership

When children's behavior is unacceptable to adults, then the adults own the problem and it is up to them to modify the behaviors that cause them a problem. When the children's behaviors are acceptable to adults but the children experience problems, unhappiness, frustration, or anger, then the

children own the problem and it is up to them to solve it. The middle area represents behaviors of the children which are causing neither the parents nor the children problems.

People need to accept that they cannot solve someone else's problem. When adults jump in and assume the responsibility for solving children's problems, they most often meet with failure. The PET model offers the alternative: let the children solve their own problems and find their own solutions. Gordon (1976) has made the following observations: All children inevitably will encounter problems in their lives -- all shapes and kinds. Children have unbelievable and mostly untapped potential for finding solutions to their problems. If adults hand them pre-packaged solutions, children remain dependent and fail to develop their own problem-solving skills. They will keep coming to adults every time they encounter a new problem. When adults take over (or "own") the problems of children and as a result assume full responsibility for coming up with good solutions, they take on an impossible task. No one has the infinite wisdom to generate solutions for other people's personal problems. When adults can accept that they do not "own" the children's problems, they then are in a much better position to be a "facilitator", "catalyst" or "helping agent", helping the children work through the problem-solving process on their own. Children do need help with certain kinds of problems, but the kind of help that is effective is a form of "non-help". The most effective helping leaves the responsibility with the children to search for and to find their own solutions. In PET the "non-help" takes the form of "Helping Skills".

There are two sets of skills that adults need to learn in order to deal effectively with children. When children own the problem, the most effective way for adults to help is to use "helping skills". When the children's



behavior causes the adults a problem, the adults own the problem, and they must use confrontation skills to alleviate the problem.

One of the most important "helping skills" is simply listening to children. Unfortunately many adults have not learned this skill and instead of listening they send out roadblocks to communication. Roadblocks are messages which tend to block further communication; they slow down, inhibit, or completely stop the two-way process of communication that is so necessary in helping children solve their problems. The thousands of potentially unacceptable messages that adults can send can be classified into the categories listed in Table 13 (Gordon, 1974).

It should be remembered that these messages are serious problems only when a child has a problem. If the behaviors of the children are in the no problem area, the roadblocks are much less problematic.

Certain kinds of messages make people feel better, encourage them to talk, help them express their feelings, foster a feeling of worth or self-esteem, reduce threat or fear, and facilitate growth and constructive change. Adults need to learn the helping skills that will allow them to send these types of constructive messages.

There are four basic listening skills that enable adults to increase their effectiveness in helping children with problems. The first is passive listening (silence). Children will find it difficult to talk about what is bothering them if the adults are doing most of the talking. The expression "silence is golden" applies to effective communicating because passive listening is a strong non-verbal message that conveys to youngsters that the adults want to hear what they are feeling, that they accept their feelings and that the adults accept the fact that the children are in charge; it is their problem. Passive listening encourages youngsters to share their

Table 13  
Road Blocks To Communication

Ordering, commanding, directing.

Warning, threatening.

Moralizing, preaching, giving "shoulds and oughts".

Advising, offering solutions or suggestions.

Teaching, lecturing, giving logical arguments.

Judging, criticizing, disagreeing, blaming.

Name-calling, stereotyping, labeling.

Interpreting, analyzing, diagnosing.

Praising, agreeing, giving positive evaluations.

Reassuring, sympathizing, consoling, supporting.

Questioning, probing, interrogating, cross-examining.

Withdrawing, distracting, being sarcastic, humoring,  
diverting.

feelings and often to explore deeper and more basic problems than the one initially presented.

The second listening skill is acknowledgment responses. While silence avoids the communication roadblocks that so often tell children that their messages are unacceptable, it does not necessarily prove to children that adults are really paying attention (Gordon, 1976). Because of this fact it often helps, especially at pauses, for adults to use non-verbal and verbal cues to indicate that they are actually hearing what is said. These cues are called "acknowledgment responses". Nodding, leaning forward, smiling, frowning and other body movements, used appropriately, let children know that they are being heard.

The third listening skill instructs adults to use door openers or invitations. Occasionally, children need additional encouragement to talk about their feelings and problems because they find it difficult to start. Effective door openers or invitations to talk include the following: Would you like to talk about it? I'm interested in your thinking about. Do you want to say more about that?

These responses are open-ended; they leave the door wide open for children to talk about any aspect of the problem. Children are given freedom to decide what it is they want to share. These door openers also convey no evaluation of judgment of what the children have been previously communicating.

The last listening skill is active listening. It is a type of verbal response which contains no actual message, but only mirrors or feeds back the child's previous message. This type of verbal response is called active listening and differs from passive listening in that the adults feed back what they hear, and as a result actively demonstrate that they truly

understand the message. Active listening is simply adults verbalizing "feedback" of the results of their decoding process. The feedback communicates to the sender, "This is what I think you're feeling -- am I right or wrong?" If the receiver is right, the sender can say something that confirms the accuracy of the feedback. If the receiver is wrong (has decoded inaccurately), the sender can correct the receiver. By feeding back, through active listening, the receiver has a way of checking on the accuracy of his/her understanding of the sender's messages. Using this process the receiver understands what the sender means and, equally important, the sender knows it.

Often old habits can be hard to break and adults may find it difficult not to be interrogators, moralizers and solution givers (Gordon, 1976). The new skills for some adults may seem foreign or unnatural. Table 14 outlines guidelines that will help adults improve their listening skills.

Helping skills are skills used by adults when the children's behaviors cause the children problems. Confrontation skills are assertive skills that can be used by adults when children's behaviors cause the adults problems. Unfortunately the typical way adults confront children when they engage in unacceptable behavior is for adults to send messages that fall into one of the twelve communication roadblocks. These communication roadblocks, when used in a confrontative manner, usually take the form of "You" messages. The impact of "You"-messages on children usually produces one of the effects listed in Table 15 (Gordon, 1978).

It must be remembered that when children's behaviors are unacceptable to adults because in some tangible way they interfere with the adults' enjoyment of life or their right to satisfy their own needs, the adults clearly "owns" the problem. If adults are upset, disappointed, tired, worried, or harassed,

Table 14  
Guidelines For Using Listening Skills

Know when to use Active Listening. Remember that active listening is only a technique that allows people to communicate their acceptance and empathy. It should be used when people are free enough of their own problems that they are able to help others with their problems.

Know when not to use Active Listening. It will not work if adults feel unaccepting of the children -- when the adult owns the problem. Adults should not use it if they do not have the time or are not in the mood.

Competence comes only with practice. Adults cannot become competent at active listening without lots of practice.

Do not give up too quickly. It takes time for children to realize that adults really do want to understand and that they are accepting of the children's problems and feelings. Children are most accustomed to hearing adults warn, preach, teach, advise and interrogate.

Adults will never know the capabilities of children unless they give them a chance to solve their own problems. Adults need to try to adopt the attitude that children can solve their own problems without adult direction.

Accept that active listening at first will feel artificial. It usually feels and sounds more gimmicky to adults than to children. With practice adults can learn to feel more natural.

Try using other listening skills: passive listening, acknowledgment responses, and door openers. Every response of children does not need to be fed back. Active listening should be primarily used when feelings are strong and the child's need for acceptance is apparent.

When children need more information, give it. The only concern is that adults must be sure that they know what the real problem is before they give information.

Avoid pushing or imposing active listening on children. Adults need to listen for clues that indicate that children do not want to talk. Respect their need for privacy.

Do not expect children to arrive at the adult's preferred solution. Remember, Active Listening is for helping children with their problems -- a tool for helping them find their solutions. Adults must be prepared for times when no solution surfaces -- children might now even explain how they eventually solved the problem.

Table 15  
Effect Of "You" Messages

Children resist changing when they're commanded to do something, or threatened if they do not.

Children turn off adults who moralize and preach or lecture and instruct.

"You" messages communicate: "I don't trust you to find a way to me".

"You" messages deny children a chance to initiate behavior out of consideration for the parents' needs.

Children feel guilty being put down with evaluations or name calling.

Critical, blaming messages reduce children's self-esteem.

Children feel rejected and even unloved when they hear messages that communicate that they are "bad", "stupid", "inconsiderate" or "thoughtless".

"You" messages cause reactive behavior, boomerangs that put down the adults:

"You're always tired."

"You're a big grouch."

"Nothing ever pleases you."

it is their responsibility to communicate this to the child whose behavior is causing the problem. The most effective method of communicating these feelings is using "I" messages. The adult takes responsibility for having the problem and is looking for assistance to solve it. It should be noted that "I" messages do not always influence children to change their behavior. An "I" message is simply the best way for individuals to inform others that their behaviors are causing them a problem.

To have the greatest chance of success, adults must send complete "I" messages. A complete "I" message is made up of three parts: a description of the unacceptable behavior; the feeling experienced by the adult; and the tangible, concrete effect on the adult.

Other factors which affect the success or failure of "I" messages are listed in Table 16.

Table 17 provides some general guidelines for using "I" messages (Gordon, 1976, p. 138).

The final element of PET is the no-lose method of conflict resolution. When a conflict between adults and children occurs, the adults must have the children participate in a joint search for some solution that is acceptable to the individuals concerned. Either may suggest possible solutions, which are then evaluated and a decision is eventually made on the best solution. Both individuals decide how it is to be carried out. No coercion is required and as a result no power is used. No one loses!

In conclusion, if adults can learn and apply the basic skills of effective human relations, honest interpersonal communication and constructive conflict resolution with children, they will have a very potent stressor management skill.

Table 16  
Factors Affecting The Success Of "I" Messages

Whether or not the children feel that adults generally listen when the children own the problem. It is generally seen as simply: if adults want children to listen when they have a problem, then children must feel that the adults generally listen to them when they have problems.

The strength of the "I" messages. For "I" messages to work, in some instances, adults need to first get the attention of the children. The "I" message must be strong enough to have an impact.

How the adults respond to the children's resistance to the adult's "I" message. Even the best "I" messages can result in resistance. Children often respond with:

- "I don't want to."

- "It's not bothering you."

- "I don't care. I want to do it anyway."

PET stresses how important it is for adults to listen sensitively to the resistance their "I" messages provoke. This is called shifting gears changing from the confronting stance to the listening posture. Children find it easier to change if they feel that the adults understand how hard it is.

Whether the "I" message sends a solution. Some adults think that they are sending "I" messages when in fact they are telling the children exactly what they must do to relieve the adult of the problem that their unacceptable behavior is causing. The messages take the "I" form but come across as an order or at least a very strong suggestion or solution. Such solution-messages usually produce resistance rather than a desire to change.

How much the adults resort to the use of power and authority. When the "I" message does not produce the desired result, there is always the temptation to resort to adult authority. Using power after an "I" message fails is like saying to children, "I have a problem and would like you to help, but if you don't, I'm going to make you." This is not the kind of message that fosters in children the desire to be considerate of adults.



Table 17  
Guidelines For Using "I" Messages

Adults' effectiveness with "I" messages depends on the quality of the total adult-child relationship. If adults do a lot of listening to children when they own problems, the probability increases that children will respond constructively to adult messages when adults own the problem.

Adults need to get in touch with their real feelings. If adult "I" messages are usually angry, these people probably don't know the real feelings they are experiencing when children give them problems. Adults should ask themselves "What do I fear?" because a good deal of the time behavior that adults find unacceptable is in some way threatening the loss of something the adults need.

Children should not be expected to change their behavior unless adults tell them the tangible and concrete effects of that behavior. Children need real reasons because they need to be convinced there is a good and logical reason for them to change their behavior. Adults must remember that good "I" messages have three components.

Adults should not expect every "I" message to work. Adults certainly do not always feel like changing every time they are confronted by a friend or spouse.

Adults should avoid viewing children as fragile and easily hurt. If adult "I" messages are not disguised "You" messages, then adults can make them as strong as they feel.

If the adults first "I" message does not work, they should try a second that is stronger and congruent with how they feel when they are ignored.

Adults need to listen carefully to the defensiveness they provoke and be ready to shift into active listening.

Adults should tell kids why they are causing a problem and give them a chance to be helpful in solving the problem.

Adults must remember that an "I" message is a non-power method for adults to get what they need. Using follow-up commands, physical force, or threats of punishment only contaminates this powerful skill.

Suggested Readings

- Briggs, D. Your child's self-esteem. New York: Doubleday, 1970.
- Ginott, H. Between parent and child. New York: MacMillan, 1965.
- Gordon, T. PET: parent effectiveness training. New York: New American Library, 1970.
- Gordon, T. PET in action. New York: Bantam Books, 1976.
- Gordon, T. TET: teacher effectiveness training. New York: David McKay Co., 1974.
- Satir, V. People making Palo Alto, California: Science Behavior Books, 1972.

## CHAPTER 7

### USE CONTINUOUSLY STRATEGIES

Some stressor management strategies require more permanent effort. These strategies are either aimed at changing the environment or at changing the individual's reaction to the situation. Examples of the use continuously strategies include: organization change, sound barriers, improved lighting, exercise and nutrition.

To date, there is little data to support the claim that changing the environment will result in a reduction of the demand and pressure people experience (Hiebert, 1982). There is, however, logical support for the theory that a change in interaction patterns in an organization so as to reduce the ambiguity in role description or performance appraisal will reduce the pressure involved in the above situations. There is also logical support for the notion that people will experience less stress in situations where noise and lighting are not a problem. More research is necessary in these areas.

Two stressor management strategies that do have empirical support are exercise and nutrition(Hiebert, 1982). These strategies are aimed at changing individuals so that they can better withstand the demands and pressures they experience.

#### Exercise

Ledwidge's(1980) review of the literature on the relationship between running, anxiety and depression suggests that running can have a powerful inhibitory effect on both of these stress-related states. Evans, Cox and Jamieson (1979) observed that it was not running per se that was the operative variable, but rather aerobic capacity (Hiebert,1982). Aerobic capacity refers to the efficiency with which lungs extract oxygen from the air and deploy it in the bloodstream. Evans et al(1977) found that people

with high aerobic capacity recovered from stress more quickly than people with low aerobic capacity. In the cases researched, people seemed to react to a stressor with equal intensity regardless of their aerobic capacity, but people with high aerobic capacity seemed to recover more quickly to their baseline arousal levels.

Suggested activities for improving aerobic capacity include:

Running/Jogging  
Cross Country Skiing  
Jumping Rope  
Cycling  
Swimming (See Cooper, 1977)

Aerobic fitness is a function of how efficiently the lungs, heart and blood vessels -- cardio-respiratory systems -- take oxygen from the air they breathe, process it and deliver it to the muscles where it goes to work.

Getting the cardio - respiratory system into better shape is the product of a process. Bodies become accustomed to a normal level of activity. When they become more active, a process of positive change referred to as the "Overload Principle" begins. Whenever people give their bodies more to do than they are accustomed to doing, they create an "overload". The body will naturally respond by adapting itself to the increased demand. Any activity which needs an increase in energy supply will challenge the cardiovascular system to do more than it normally does.

An easy to access gauge of the efficiency of the cardio - respiratory system is the heart rate. In general, a lower heart rate indicates a more efficient cardio-respiratory system and a better level of physical conditioning. On average, the heart rate of a fit person at rest beats in the range of 55 to 65 times per minute. The heart rate of an unfit person at rest beats in the range of 75-85 times per minute. In applying the "overload" principle, people must get their heart rate to a certain level of

exertion before the fitness effect comes into play. This rate is often referred to as the "training rate" or the "target zone" and can be calculated as follows:

$$\begin{array}{r}
 200 \text{ minus } \frac{\quad}{\text{individual's age}} = \\
 \\
 170 \text{ minus } \frac{\quad}{\text{individual's age}} =
 \end{array}
 \begin{array}{l}
 | \\
 \text{Target Zone} \\
 | \\
 \text{Training Rate}
 \end{array}$$

If the heart rate is in the target zone while being physically active, the fitness effect will be achieved. For example, when starting a training program, just walking may put the heart rate into the target zone. As people become fitter, it will take more energetic activity to get their heart rate in target zone. It is important to recognize that the target zone does not change. It remains the same as a guide to help determine what level of activity is appropriate.

Once this process is understood, the next step is to select the most appropriate personal fitness program. There are three basic elements to consider while becoming fit: frequency, intensity, and time. (FIT). Together they form the foundations of a simple, yet comprehensive approach to getting into shape and staying there.

### Frequency

Any single session of activity can provide people with the fitness effect, but they cannot become fit being active occasionally. People need to exercise three time per week. After as little as 48 hours without vigorous physical activity people begin to lose any improvement they have made in their fitness. To maintain or build their fitness level, individuals must do some form of energetic activity every other day.

After a few weeks of regular activity people will begin to feel the gains they have made. In only six or eight weeks people can make major improvements in their aerobic capacity. At this point it is important for individuals to recognize that they should never stop their fitness programs. Fitness is an on-going process. Individuals need to make physical activity a regular and integral part of their lifestyles. It should be remembered that fitness is lost if people exercise two days or less a week, fitness is maintained if people exercise three days a week, fitness is improved if people exercise six days a week (Bailey,1978).

### Intensity

The general rule is to begin slowly. A body unaccustomed to meeting the demands of energetic activity has to be brought along gradually. People should start by walking around the block a few times. After a while, a light jog or bike ride may be the increased intensity needed.

Individuals must remember the "overload principle" and realize that they only obtain the fitness effect when their heart rate is within their target zone. The easiest way to tell whether or not individuals are working hard enough is for them to check their pulse occasionally during activity. With practice and experience people will not need to check their pulse as often; they will know by the way they feel whether or not what they are doing is energetic enough.

### Time

A worthwhile workout need not take hours, it can take as little as fifteen minutes. If individuals can get their heart rates into their target zone and maintain them for that time, they are receiving the full benefits of the fitness effect.

It should be remembered that people need to add a few minutes to the

beginning and the end of their fitness sessions for warm up and cool down exercises. Some simple stretching exercises can help prevent muscle pulls during exercise and stiff muscles the next day.

The following are a few simple guidelines to follow when doing stretching exercises. Exercisers should pay attention to the stretch, not the flexibility. They should try to avoid competition or comparison and focus on the feeling of relaxation in the stretch. People should never hold their breath while stretching. They should be aware of their breathing and keep it slow and rhythmical because this keeps the stretch relaxed. Finally they should never bounce while stretching, and always stretch within personal limits.

The next consideration in developing a fitness program is for individuals to choose which activities to do in order to become fit. The best way to ensure that the goal of fitness is translated into practice is to personalize the intended course of action. Individuals should choose activities that they will enjoy. A sincere desire to improve fitness may be what gets people up and moving but unless they enjoy what they are doing, they may find it difficult to stay active on a regular basis.

Enjoyment is a highly personal issue. People need to decide what activities they want to do instead of merely doing the activities they think they "should do" or the ones that others have "told" them are best. They need to set up some enjoyment criteria for themselves. People need to decide whether they want a single activity or prefer a varied program; whether they would like to do the activity alone or a part of a group; whether they like competition or seek relief from it; and whether they would appreciate a structured pre-arranged routine or would rather set their own time, place and pace.

A second consideration is finding a convenient time for the activity. Fitness takes time. At first many people think they do not have time for fitness. The time issue is a matter of priorities; if fitness is worth having, it is worth the time it takes to get it. Furthermore, the net result could be time saving, for as aerobic capacity increases, so does efficiency. Fit people find that it takes less time to do many of their other activities.

Individuals need to review their daily schedules to find time for their selected fitness activity. It is important to make the activity fit their schedule, not the reverse. Once people have set aside time for fitness, they need to be consistent. If activity sessions are random, they are likely to be discontinued. Fitness requires a lifestyle change. When people get involved in a regular fitness program, it soon becomes a natural part of their lives and no longer requires a constant, conscious effort.

One note of caution when starting an exercise program is that it is advisable to obtain medical clearance before beginning the program.

#### Nutrition

Nutrition is the other "use continuously" stressor management strategy that has some empirical support, although the data relating stress and nutrition are somewhat preliminary (Hiebert, 1982). Nutrition plays a significant role in people's total feeling of physical and mental well-being. In undertaking a stress-reduction program, individuals should be aware of how certain foods and beverages may actually compound their stress level. The food people eat, and the way they eat it, may counteract all the good work they are doing to control the stress in their lives. Changing their diet may reduce susceptibility to stress (Mason, 1980).

People's eating habits partially determine the amount of nutrients they



will be able to absorb from their food. If individuals are anxious, they will most likely eat more quickly than if they are calm and relaxed. This disrupts the digestive process. This also places an additional strain on the gastrointestinal tract. As an easy to implement stress control strategy, it is important while eating to sit down, chew all food completely and concentrate on the meal.

Caffeine and sugar, both of which potentiate the stress response, are two of the most harmful substances consumed in excess (Mason, 1980). The effects of caffeine on physiological arousal are well documented (Asterita, Smolnicky & Iatridis, 1981). Caffeine induces increased physiologic arousal and inhibits the relaxation response. Reducing or eliminating high caffeine foods such as coffee, cola drinks and chocolate would be a good stressor management strategy. Refined sugar and insufficient vitamin B are two other dietary culprits (Mason, 1980). Both operate in a similar manner to slow down the rate at which arousal inducing hormones, released as part of the stress response, are absorbed and homeostasis is restored. On a more general level, some writers (Everly & Rosenfeld, 1982) emphasize the importance of a balanced diet in preventing daily pressures from becoming stressors. Table 18 provides some general rules for good nutrition.

Canada's Food Guide recognizes that eating habits, both good and bad, are formed early in life but it also states that it is never too late to begin following the path to good nutrition.

Canada's Food Guide is a pattern of eating, not a rigid set of rules. If people follow the guide they can obtain the more than 50 nutrients required by their bodies every day.

## Table 18

## Rules For Good Nutrition

Eat a variety of foods.

Eat unrefined and raw foods as much as possible. Unrefined means no basic nutrient has been lost in processing, and no preservatives have been added.

Eat foods low in fat content. Avoid saturated fat and cholesterol.

Space food intake at regular intervals throughout the day.

Avoid too much sugar.

Maintain a proper age - height related weight.

Avoid junk foods which tend to be high in calories and low in nutrition value.

Follow Canada's Food Guide.

The guide recommends daily numbers of servings to be selected from each of the four food groups:

Milk and Milk Products  
Breads and Cereals  
Fruits and Vegetables  
Meats and Alternatives

These four food groups were chosen because the kinds and amounts of key nutrients each group supplies, form an interlocking pattern of good nutrition. The contributions of each of the food groups are as follows:

#### Milk And Milk Products

These foods are important because they are the main sources of calcium, vitamin D and one of the B vitamins, riboflavin. Foods in this groups also supply vitamin A and protein.

The milk and milk products group includes all forms of milk -- whole, partially skimmed (2%), skim, fresh, evaporated and powdered -- as well as milk products such as cheese, yogurt, and buttermilk. Butter, whipping cream and soft cheese are not included because they contain almost no calcium.

Canada's Food Guide recommends the following daily amounts of milk and milk products:

Children up to eleven years	2-3 servings
Adolescents	3-4 servings
Adults	2 servings
Pregnant and nursing women	3-4 servings

#### Breads And Cereals

Foods in this group are an inexpensive source of energy and supply individuals with carbohydrates and proteins. They are also important sources (especially if whole grain and enriched) of iron and several B vitamins. Whole grain products, such as whole wheat bread, rolled oats, bran flakes and shredded wheat, not only contain the above nutrients but are also an important source of dietary fiber, which provides bulk to help normal

elimination. Canada's Food Guide recommends three to five servings of breads and cereals every day. The exact number and size of serving depends on individual energy needs.

### Fruits And Vegetables

Together these foods form a single food group because they make similar contributions to the diet. They are the main source of vitamin C and some are especially rich in vitamin A. This group also provided iron, thiamin, folic acid, carbohydrate, trace minerals and fiber. Cantaloupes, strawberries, citrus fruits and vegetables such as broccoli, green peppers, and brussel sprouts are excellent sources of vitamin C. Orange, yellow and dark green vegetables and yellow fruits are major sources of carotene, which is converted to vitamin A by the body. Good sources of iron include prunes, raisins, apricots, peas, beans, broccoli, and green leafy vegetables. Canada's Food Guide recommends four to five servings of fruits and vegetables every day, including at least two vegetables.

### Meat And Alternates

Meat and alternates are the main source of protein and are also important sources of fat, iron, and B vitamins niacin, thiamin, riboflavin and folic acid. People will receive ample protein from two daily servings of meats and alternates, as suggested by Canada's Food Guide. It should be noted that since liver is an unusually nutritious member of the meat and alternates group (because of its high content of iron, B vitamins, and vitamin A) it should be served several times a month.

Although meat may be a popular part of most meals, there is a wide choice of alternates of both animal and vegetable origin, including poultry, fish, cheese, legumes, and simulated products. Dried legumes, such as peas, beans, and lentils are particularly flavorful, versatile and inexpensive

alternates. Outstanding among the legumes is the soybean, which contains a higher proportion of protein than other dried beans and peas.

There are simulated meat and poultry products (vegetable protein products made to resemble meat and poultry), and meat extenders made from soy protein and other vegetable proteins. They contain the same quality and quantity of protein and about the same amounts of vitamins and minerals as the meat or poultry they replace.

Low-fat meat alternates include poultry, white-fleshed fish, skim milk, cheese, and vegetable proteins such as dried peas, beans and lentils. Canada's Food Guide states that individuals should eat extra servings from a food group only if they do not neglect the other food groups and only if they can afford the additional calories.

As research continues on the relationship between nutrition and stress, more definitive statements will be possible. At the present time, it seems safe to conclude that eating evenly spaced, well-balanced meals, reducing the intake of caffeine and refined sugar and maintaining a proper concentration of vitamins, especially vitamin B, will produce a good stressor management effect (Hiebert, 1982).

### Suggested Readings

Bailey, C. Fit or fat? Boston: Houghton Mifflin, 1977.

Cooper, K. H. The new aerobics. New York: Bantam, 1970.

Katch, F., & McArdle, W., Nutrition, weight control and exercise.  
Boston:Houghton/Miffen, 1977.

McArdle, W., Katch, F., & Katch, V. Exercise physiology:  
exercise, nutrition and human performance. Philadelphia:  
Lea & Febiger, 1981.

Morehouse, L. & Gross, L. Total fitness. New York:  
Simon & Schuster, 1975.

### Summary

All stressor management strategies have one element in common: the goal is to reduce the size of the demand so that the pressures will not become stressors. The basic assumption is that if the size of the demand is reduced, the person is more likely to cope effectively with the situation. Some stressor management strategies are non-intensive and easy to utilize(temporarily withdrawing from a situation, talking with supportive colleagues) or involve learning new skills(job campaigning, assertiveness etc.) so that encountering a given situation is less demanding. Others require a more continuous effort in order to produce the effect(nutrition and exercise). In both types of strategies the goal is the same: change the situation so that it is less demanding.

PART V

STRESS MANAGEMENT

## CHAPTER 8

### BEHAVIORAL INTERVENTIONS

#### Introduction

Sometimes people are involved in situations either that they do not want to change even though they are aversive or that are difficult or impossible to change. In the above cases it is often possible to change the person's reaction to the situation, even though the situation per se remains unchanged (Hiebert, 1982). Stress management procedures have as their goal changing the person's reaction to a given situation so that the reaction is less stressful. The stress management strategy may focus on changing the behavioral, cognitive or physiological component of the response. Typically, change in any one of these components will produce concomitant changes in the other two. Stress management strategies can also be of the "use as required" or "use continuously" variety.

#### Use-As-Required Strategies

The common focus of behavioral interventions lies in developing some set of behaviors that will interfere with the stress response. On the non-intensive "use-as-required" level these include slowing down in order to feel less pressured. This means walking slower, talking slower, eating more slowly, taking time for lunch and rest breaks, especially on occasions of increased pressure. People can train themselves to slow down and as a result they interfere with the stress response.

#### Use Continuously Strategies

On the more intensive "use continuously" level, behavioral strategies involve a more systematic effort. Two techniques which can be used are Reshaping type A Behaviors and Anxiety Management Training.



### Reshaping Type A Behaviors

The work of Friedman and Rosenman (1974) led to the labeling of certain behavior patterns that have a high correlation to coronary disease. Type A individuals have seven times as much heart disease as the Type B person and the data suggest that this correlation is due in large part to their life styles or behavior patterns and has little to do with diet and exercise.

The Type A behavior pattern is an action-emotion complex that can be observed in any person who is aggressively involved in a chronic, incessant struggle to achieve more and more in less and less time (Friedman & Rosenman, 1974). There are many degrees in the intensity of the behavior pattern but in general people displaying a Type A behavior pattern tend to be aggressive, competitive, ambitious, restless, work-pressured and time compulsive. Individuals with this behavior pattern seek to control environments, events and people. They tend to become hostile quickly and to punish their bodies by suppressing fatigue and over extending their work day (often referred to as workaholics). Those with the Type A behavior characteristics run their lives with a sense of time urgency, they are impatient with delays, have polyphasic thoughts and actions (do and think about many things at the same time), move, walk, talk and eat rapidly. Individuals with this type of behavior pattern are in a chronic struggle to achieve and end up feeling guilty if they take time to relax. They place themselves under a constant stream of demands leading to pressures which tend to ultimately end up in stress (Schnert, 1981).

The Type B behavior pattern is the antithesis of the Type A. Individuals with the Type B behavior pattern are typified by a less competitive, less rushed and more easy going nature. They tend to be less aggressive and less prone to becoming hostile or angry. They are relatively free from a sense of

time urgency and although individuals with Type B behavior patterns are most often reasonably punctual, they do not seem driven by a clock or the urge to get more done in less time. These people tend to be tolerant, moderate, flexible, efficient and are noted for their sequential, organized thinking.

It should be noted that although the Type A and B behavior patterns are opposite, there has been no measurable difference in the intelligence, ambition, productivity or socio-economic status of those labelled Type A or B (Friedman & Rosenman, 1974). The intelligence, ambition, productivity and drive of type B behavior pattern people may be as great or even greater than that of the Type A. Finally, the socio-economic position is not related to Type A or B behavior patterns. Presidents of many banks and corporations have Type B behavior patterns and conversely many janitors, shoe salesmen, architects and florists may have Type A patterns.

Reshaping Type A behaviors into a more Type B style usually involves a systematic attempt to decrease hard driving, competitive, time compulsive behavior, polyphasic thinking and decision making and characteristics of the "hurry up syndrome" (Hiebert, 1982). These Type A characteristics are replaced with antithetical Type B behaviors such as slower more relaxed gait, being less time-bound, using sequential thinking and decision-making, and generally being in less of a hurry.

#### Anxiety Management Training

Another behavioral intervention is anxiety management training (Suinn, 1975). Anxiety management training (AMT) was developed as an alternative to systematic desensitization, implosion and flooding techniques.

A.M.T. involves relaxation training, imagery to initiate anxiety arousal, attention to the physical cues of anxiety arousal, training in switching from arousal imagery to relaxation imagery, and experience in

anxiety arousal followed by self-induction of anxiety control. Suinn (1975) conceived A.M.T. to be a conditioning process by which the stimuli of the anxiety experience are connected through training with anxiety-reduction responses. It was designed as a learned process not dependent upon conscious, cognitive control. As a result it was thought to be an automatic process whereby when people experienced anxiety arousal, these cues would automatically trigger anxiety-reduction actions. These results were found by some, but others seem to be using AMT as a learned self-control style of coping (Suinn, 1975). These people report that when they become aware of feelings of anxiety they use their relaxation to regain control. In either case people can learn anxiety management training as a preventive as well as coping stress management strategy.

Regardless of the focus, behavioral interventions share the common goal of developing a set of behaviors (usually variations on the theme of slowing down) that will interfere directly with the tendency to respond stressfully (Hiebert, 1982).

## CHAPTER 9

### COGNITIVE INTERVENTIONS

#### Introduction

The goal of cognitive interventions for stress management is to develop thinking patterns that promote an accurate appraisal of the demand or threat characteristic of a situation and foster a supportive and encouraging self-dialogue concerning coping attempts (Hiebert, 1982).

#### Use As Required Strategies

Strategies at this level are designed to provide people with some procedures to help them focus on the positive aspects of a situation. People talk to themselves almost all of the time. The specific things people say to themselves (self-talk) strongly influences the way they feel (Hiebert, 1982). All too often "self-talk" takes the form of self "put-downs" which usually have the effect of increasing stress. It is almost profound to appreciate that each of us spends more time with ourselves on any given day than we spend with anyone else. If we are always telling ourselves we could do better, that we goofed, that we always make mistakes, or that we never do it right, we will likely perceive these as stressors. Alternatively, hearing supportive, encouraging statements is likely to be stress reducing. When people learn to change their self-talk and make it more positive, they invariably end up feeling more encouraged and less stressed (Hiebert, 1982). It is very important to understand the effect of positive self-talk. It is very difficult to think of failing at an experience (a self-defeating thought) while at the same time concentrating on doing well, regardless of the outcome (a positive, coping thought). As long as people engage in negative self-statements they tend to become anxious. As soon as they replace these negative thoughts with positive self statements, then the

positive takes over.

Positive self-talk helps people to manage situations and to cope with these situations if they start to feel overwhelmed. Several easy to learn procedures have been developed to help people learn to be more supportive in their self-dialogue. These are discussed below.

#### Monitoring Pros And Cons

Before beginning a program to alter self-talk, it is important to find out how much of what people say to themselves is positive and how much is negative. Typically the amount of stress people experience is directly related to the amount of negative self-talk the person engages in: the more negative self-statements, the more stress people feel; the more positive self-statements, the less stress people feel (Hiebert, 1982). An easy way for people to determine what portion of their self-talk is positive is to use the pro-con monitoring sheet (see Figure 4). This sheet can be folded and carried in a pocket or a purse so that it can be used throughout the day. Whenever people catch themselves saying or thinking something about themselves, they must decide if the comment is positive or negative and then check the appropriate category, pro for positive self-statements and con for negative self-statements. This monitoring can be done for a week in order to determine typical patterns.

This type of pro/con monitoring can be used to reduce stress simply by having people try to increase the number of checks in the "pro" column. Individuals should not worry about decreasing the number of negative self-statements; if the number of positive self-statements increases, the number of negatives will automatically go down.

One problem with monitoring pros and cons is that many people find it difficult to talk positively to themselves. Most people have not been taught

Date _____		Date _____	
PRO	CON	PRO	CON

Date _____		Date _____	
PRO	CON	PRO	CON

Figure 4 Pro/Con Monitoring Sheet

to do this and as a result it can be difficult at first. It helps some people to talk to themselves as they would talk to a good friend who needed their support. It is important to make sure the positive comments are legitimate (no false praise), and that this technique is practiced until the process of talking more positively to themselves becomes natural. When this happens the monitoring can be phased out and reserved for those periods of high pressure.

### Thought Stopping

When people are having particular difficulty controlling unproductive or self-defeating self thoughts, the technique of thought-stopping is very useful. This technique was first developed by Wolpe (1958). A recent elaboration of the procedure has been described by Rimm and Masters (1974). Thought-stopping is a particularly useful procedure for people who: ruminate about past events that cannot be changed; ruminate about events that are unlikely to occur; or who engage in repetitive, unproductive, negative thinking; or repetitive anxiety-producing images.

There are six major components of the thought-stopping strategy: (Cormier & Cormier, 1979)

1. Rationale and overview of the procedure
2. Instructor directed thought-stopping (overt interruption)
3. Individual directed thought-stopping (covert interruption)
4. A shift to assertive, positive, or neutral thoughts
5. Homework
6. Follow-up

In the first stage of the thought stopping technique the instructor needs to explain the rationale for thought-stopping. Before using the strategy learners should be aware of the nature of their self-defeating

thoughts or images. Instructors should point out how self defeating thoughts are futile and should indicate the ways in which people would be better off without being plagued by such thoughts or images.

If people agree to learn the technique, the instructor should describe the procedure without displaying too graphically the way in which thoughts are stopped, because the initial surprise is very effective. A sample description of the procedure is as follows: "I will ask you to sit back and just let thoughts come into your mind. When you tell me you have a recurring negative thought, I will interrupt you. Then I will teach you how to break this chain of thoughts so you can do this whenever these thoughts crop up."

The second component is instructor directed thought-stopping (overt interruption). The instructor assumes the responsibility for interrupting the thoughts. The interruption is overt, consisting of a loud "Stop" that can be accompanied by a noise such as a hand clap, ruler hitting a desk or a whistle. In the first instructor directed sequence, the learner is instructed to verbalize all thoughts and images aloud. The verbalization enables the instructor to determine the precise point at which the shifts from positive to negative thinking occurs. When the self-defeating thought or image is being verbalized the instructor interrupts by shouting "Stop". Sometimes, in addition, a loud noise stimulus such as a hand clap, a whistle, or a ruler hitting the desk is used. The instructor draws the learner's attention to the fact that the interruption stopped the self defeating thought.

After this sequence, the instructor directs another thought-stopping sequence in which the learner does not verbalize thoughts aloud but uses a hand signal to inform the instructor of the onset of a self-defeating thought or image. This sequence is similar to the first one with the exception of



the hand signal. This sequence, having the learner sit back and let thoughts come naturally, indicating when the negative or self-defeating thoughts start to come, and having the instructor interrupt, is repeated as often as necessary. The practice is generally continued until a pattern of inhibiting the self-defeating thoughts by instructor command is established.

The third component of the thought stopping technique is learner-directed thought-stopping (overt interruption). After the individual has learned to control negative thoughts in response to the instructor's interruptions, the learner assumes responsibility for the interruption. At first people direct themselves in the thought-stopping sequence with the same overt interruption used by the instructor -- a loud "stop". This "stop" is practiced until it is possible to suppress the self-defeating thoughts by overt self-interruption. Sometimes even the word "stop" or a clap is not a strong enough stimulus to help terminate the undesired thought. If this occurs, a snap of a rubber band worn on the wrist may add to the potential of these stimuli to stop the negative thoughts. The rubber band should only be worn for as long as necessary to establish this sequence.

The fourth component is learner-directed thought-stopping (covert interruption). Because in many cases it would be impractical and unwise for people to interrupt themselves overtly in this sequence of thought-stopping, they substitute a covert interruption for the overt one. The following two step sequence occurs: the person lets any thoughts or images come to mind and when a self-defeating thought is noticed, he/she interrupts by covertly saying "stop". This sequence is practiced until the individual is able to terminate the self-defeating thoughts with only the covert interruption.

The fifth component of the thought-stopping sequence is designed to teach the learner to shift to assertive, positive or neutral thoughts. In

some cases a negative thought may contribute to a greater level of anxiety. In other cases, the thought pattern may be the result of preceding anxiety or tension. In both cases, some degree of anxiety or arousal may be present in addition to the ruminative thinking pattern. In order to reduce any residual anxiety, Rimm and Masters (1974) suggest that people learn to think assertive thoughts after the self-defeating thoughts are interrupted. Since assertive behavior inhibits anxiety, it is assumed that assertive thoughts will inhibit any anxiety or arousal that may occur even after the person has learned to suppress the undesired thoughts. Essentially, the learner is taught to shift thoughts to assertive responses following the interruption. These responses may either contradict the content of the negative thought or be unrelated.

Rimm and Masters (1974) point out that the assertive thoughts should be realistic and geared toward the actual difficulty in the situation. The assertive thoughts that are used are very similar to the coping thoughts that are taught in Cognitive Stress Inoculation Training. This procedure is elaborated later in this chapter.

Not all instructors who use thought-stopping employ the shift from self-defeating thoughts to assertive ones. In lieu of using assertive or coping thoughts, the learner can be asked to focus on a pleasurable or reinforcing scene or a neutral scene, such as an object in the environment. In some cases, people are taught to replace the self-defeating thoughts with a variety of self-reinforcing thoughts.

Any of the above techniques may be used because what is important is the shift to other kinds of thoughts after the self-defeating ones are stopped. The particular kinds of thoughts that are substituted should be adapted for the learner and the nature of the self-defeating thoughts.

The first step involved in teaching the shift from self-defeating to

assertive, positive or neutral, is for the instructor to first explain the purpose of substituting different thoughts for the negative ones. In addition to stopping the learner from ruminating, it shifts their attention in a more productive direction. The instructor then models the types of thoughts that could be substituted after terminating the self-defeating ones and gives some examples. The learner is then asked to identify others and to practice these aloud.

The next step is to practice this shift after another sequence of self-directed thought stopping with overt interruption. As soon as the learner says "stop", the shift to another thought should be made. They should verbalize aloud the specific thought used, practice a variety of positive thoughts and share them aloud. After this practice, the learners engage in another practice which is done covertly. They stop covertly and substitute different thoughts without verbalizing them aloud.

In the last step, the people should be encouraged to practice substituting assertive, positive or neutral thoughts several different times. Each time, they should use a different thought so that satiation from constant repetition of only one thought does not occur. If the learners have difficulty making the shift from the negative thoughts to other ones, a cueing device might help. These people can write positive or assertive responses on small note cards and carry these around.

The sixth and last component of the thought-stopping sequence is homework and follow-up. Once people have learned the thought-stopping procedure, it is time to use it in daily life. At first, the learners should be instructed to practice the thought-stopping sequence several times each day. This homework strengthens control over stopping a chain of self-defeating thoughts as they occur.

In addition to daily practice, people can initiate thought-stopping whenever they notice they are engaging in negative or self-defeating thinking. People should be cautioned about the amount of time that is often necessary to break a well-learned habit of thinking a certain way. Individuals can keep track of the daily practice and number of times thought-stopping was used on a log sheet. A follow-up session with the instructors should be arranged to discuss the results.

Thought stopping is a frequently used technique and is often used in conjunction with other strategies. There are several advantages to thought-stopping: it is administered easily, it is usually understood, and it is easy to use in a self-regulatory manner.

#### List Of Positives

Another common sense "use- as-required" intervention involves placing visible cues as reminders to maintain a positive focus. This might involve posting a list of positive personal attributes in a place where it can serve as a reminder of one's assets when frustration occurs. It could also involve choosing the types of posters one hangs in one's office or room so as to maintain a positive focus.

#### Use Continuously Strategies

When non-intensive attempts to alter stress-inducing cognitive activity are unsuccessful, some more powerful procedures are indicated. These procedures usually involve considerable effort, substantial attitude change, and become a continuous part of the person's life. Two widely used procedures have a strong data base in this area, Rational Emotive Counselling (Ellis, 1974) and Cognitive Stress Inoculation Training (Meichenbaum, 1972; 1975). These interventions differ procedurally but both have as their ultimate goals the alteration of stress inducing value systems and related self-defeating

self-dialogue.

### Rational Emotive Counselling

Rational emotive counselling is the major historical antecedent to Cognitive Stress Inoculation Training and so will be discussed first. Rational emotive counselling (REC) which was developed by Ellis (1975), assumes that all problems are the result of "magical" thinking or irrational beliefs. The basic assumption that emotional arousal and maladaptive behavior are mediated by people's interpretation of situations has laid the groundwork for Albert Ellis's rational emotive counselling.

Central to Ellis' approach is that there are certain irrational beliefs, expectations or assumptions with which a number of people in our culture tend to approach situations. To the extent that people are likely to maintain such irrational beliefs, they increase the likelihood of mislabeling situations. The ten major irrational beliefs cited by Ellis (1974) are listed in Table 19 (Cormier & Cormier, 1979, p. 360 -361)

According to REC, it is possible to resolve problems by "cognitive control of illogical emotion responses". In REC, such control is achieved primarily by reeducating people through what Ellis(1974) refers to as the "ABCDE model". This model involves showing how irrational beliefs (B) about an activity or action (A) result in irrational or inappropriate consequences (C). The individuals are then taught how to dispute (D) the irrational beliefs (B) which are not facts and have no supporting evidence, and then to recognize the effects (E). Usually the effects (E) are cognitive effects (cE) or behavioral effects (bE).

In recent years controlled outcome studies have provided scientifically valid confirmation that rational emotive counselling can be used to modify irrational beliefs and can be used successfully to reduce test anxiety,

Table 19  
Irrational Beliefs

1. The idea that it is a dire necessity for an adult to be loved or approved by virtually every significant person in his or her community.
2. The idea that one should be thoroughly competent, adequate, and achieving in all possible respects if one is to consider oneself worthwhile.
3. The idea that human unhappiness is externally caused and that people have little or no ability to control their sorrows and disturbances.
4. The idea that one's past history is an all-important determinant of one's present behavior and that because something once strongly affected one's life, it should indefinitely have a similar effect.
5. The idea that there is invariably a right, precise and perfect solution to human problems and that it is catastrophic if this perfect solution is not found.
6. The idea that if something is or may be dangerous or fearsome, one should be terribly concerned about it and should keep dwelling on the possibility of its occurring.
7. The idea that certain people are bad, wicked or villainous and that they should be severely blamed and punished for their villainy.
8. The idea that is is awful and catastrophic when things are not the way one would very much like them to be.
9. The idea that it is easier to avoid than to face certain life difficulties and self-responsibilities.
10. The idea that one should become quite upset over other people's problems and disturbances.

speech anxiety and interpersonal anxiety (Meichenbaum, 1974).

Goldfried, Decenteceo, and Weinberg (1974) have provided clearly delineated steps that an instructor might take in teaching people to modify the emotionally arousing sets with which they may be approaching various life situations. The following are the procedural steps for teaching systematic rational restructuring:

1. Presentation of rationale
2. Overview of irrational assumptions.
3. Analysis of individuals' problems in rational terms.
4. Teaching individuals to modify their self statements.

Presentation of rationale. The first procedural step is for the instructor to explain the underlying assumptions of rational restructuring, using various examples to show that the things people say to themselves can affect their feelings. It is sometimes useful for the instructor to point out that people do literally "tell themselves" things that cause upset. It is because these self-statements have become so well learned that they have become more or less automatic. At this point the instructor wants the learners to understand the general significance of self-statements without applying this knowledge to their particular problems. With an acceptance of the basic rationale, the groundwork is laid for the more complicated application to specific problems.

Overview of irrational assumptions. The second procedural step is to review Ellis'(1974) irrational assumptions. Before discussing the learners' problems in rational terms, it is helpful to obtain their reaction to the various irrational beliefs stated on the previous page. These beliefs may be stated in an even more extreme form, making it more likely for the learners to disagree with them and find them untenable. This is exactly what the

instructor intends. The instructor wants the learners to distinguish between thinking that it would be nice if such things as "perfection" and "universal love" were likely, as opposed to the thought that they "must" or should be real, which will only lead to frustration. It is advisable for the instructor to play devil's advocate and let the learners refute their irrational beliefs. When necessary, the instructor relies on verbal persuasion and teaching to help these people alter their irrational beliefs.

It is probably unnecessary to review all ten irrational ideas. Instructors should use their judgement and the particular problem to decide which of the irrational ideas to focus the review on. The two that seem to be most appropriate in a large number of cases are "Everybody must love me" and "I must be perfect in everything I do".

Analysis of problem in rational terms. The third procedural step is to analyze the problems in rational terms. After the learners agree in principle that self-statements can create emotional upsets, and that certain beliefs and expectations are irrational, the instructor can begin to focus more closely on specific problems.

Self-statements can be analyzed from two possible sources of irrationality: how likely is it that the interpretations of the situation is in fact realistic, and what are the ultimate implications of the way in which the situations have been labeled. The instructor helps the learners understand how they may have been acting on irrational beliefs. The instructor explains that the purpose of the program is to teach people to make fine discriminations between what is really terrible and what is merely an inconvenience.

Modifying internal sentences. The fourth procedural step involves teaching individuals to modify their internal sentences. Up until now the



instructor has been laying the groundwork for the actual change in self-dialogue. The objective has been for people to understand how their internal sentences have been causing their own upset. Once this objective has been achieved, the instructor can begin to help the learners change. It is important to recognize that simply understanding the cause of the problem will do little to alleviate it; the learner must consciously and deliberately engage in doing something different when feeling upset. The emotional reaction must now serve as a "cue" for them to stop and think "What am I telling myself that may be irrational?" People must learn to "break-up" what was before an automatic reaction and replace it with a more realistic appraisal of the situation. At first, this is no easy task, but with practice, the procedure becomes less tedious and deliberate, until learners can totally eliminate the initial upset phase by having made the more realistic appraisal an automatic reaction.

The general procedure involves getting people to think rationally while in the situation rather than through hindsight. The learners begin to put things in proper perspective while the upsetting event is happening. This stage involves practice in rational re-evaluation. Because people must practice coping while in the problematic situation, imagination can be used as a means of controlling the training procedure. In this way the instructor can regulate the length of time the learners are exposed to the situation and can control the anxiety-provoking nature of the situation. Individuals personalize the situations by filling in the relevant details by themselves. As with systematic desensitization, an hierarchy of least to most upsetting situations is used to enable the learners to proceed systematically one step at a time. In this way they are never faced with overwhelming situations with which they are incapable of coping. Instead, successfully coping at one

step determines the progression to a more difficult situation in the sequence.

In the actual procedure, the instructor describes a situation and the learners imagine themselves in that situation, noting how nervous (or sad or angry) they feel. If the emotional reaction exceeds a certain predetermined level, they stop and think, "What am I telling myself that is making me upset?" The learners must now determine which irrational thoughts they are telling themselves to cause this upset. After evaluating the situation in more rational terms, they then note the new anxiety levels.

At first, the instructor can serve as a model to illustrate the rational restructuring technique. For example:

I have just arrived at a party where I know very few people. Everyone is clustered in little groups talking; and I don't feel part of things. I feel myself becoming tense. On a scale of 0-100 percent tension, I classify my tension at about 40. I now stop what I am doing and think "What am I telling myself that is creating this feeling of anxiety? Lets see. I am worried that I won't handle myself well, that people won't like me -- that I'll appear inadequate and foolish in their eyes. But, now why should they think that of me? I am not behaving foolishly. Really, the very worst they could think of me is that I am kind of quiet and that's not so bad. Actually, whatever they thought of me would not change the way I really am. I'm still me. Well, I don't feel as tense about the party now - maybe I am now at an anxiety level of about 20 (Goldfried, Decentecce & Weinberg, 1974, p. 248.)

After practice with the instructor, the learners should be encouraged to utilize the same procedures in upsetting situations which occur on a day to day basis. They should be forewarned that real-life situations will not occur in hierarchical fashion, and that some situations may be too stressful for rational reevaluation to be initially successful. It is useful to provide learners with homework sheets that can be discussed at a follow up appointment (Figure 5).

Rational restructuring has been used successfully in the treatment of

Date	Description of situation	Initial anxiety level 0-100	Irrational thought	Rational evaluation	Subsequent anxiety level 100

Figure 5. Records Of Attempts To Overcome Anxiety

maladaptive emotional reactions or behavior patterns that are maintained primarily by the unrealistic attitudes and inappropriate labels. Among the typical problems for which the technique has been used are various forms of anxiety (test anxiety, public speaking anxiety, interpersonal anxiety), depression, anger, and excessively perfectionistic standards (Goldfried, 1974).

### Cognitive Stress Inoculation Training

Cognitive stress inoculation is an intensive "use continuously" cognitive change strategy. This strategy is a combination of various cognitive control procedures and is appropriate for people who experience certain identifiable situations as being stressful, and for people who generally feel stressed by many situations and are not satisfied with the results of their efforts to use other stress control techniques.

Cognitive stress inoculation assumes that cognitions (beliefs, thoughts, attitudes and expectations) can create emotional disturbance. This procedure helps determine the relationship between cognitions and the resulting emotions and behaviors. It assumes the cognitive system can be changed directly and that such changes result in more appropriate consequences. People are taught to identify faulty or self-defeating cognitions, and to replace these cognitions with self-enhancing, positive or coping thoughts. Cognitive stress inoculation training teaches a method for coping more successfully with the pressures and demands with which people are confronted daily.

Cognitive stress inoculation training is a technique in which both physical and cognitive coping skills are taught. This procedure was developed by Meichenbaum and Cameron (1973), who used it to help people with several phobic reactions to manage anxiety in stressful situations.

Meichenbaum and Turk (1976) describe stress inoculation as a type of psychological protection that functions in the same way as a medical inoculation that provides protection from disease. Stress inoculation gives those people a prospective defense or set of skills to deal with future stressful situations. As in medical inoculation, people's resistances are enhanced by exposure to a stimulus strong enough to arouse defenses without being so powerful that it overcomes them. Although the procedure has been used as remediation, it can also be used for prevention.

Stress inoculation involves three major components: education about the nature of stressful reactions, rehearsal of various physical and cognitive coping skills, and application of these skills during exposure to stressful situations.

Teaching stress inoculation relies heavily on the work of Meichenbaum and Cameron (1973) and Meichenbaum and Turk (1976). They have outlined the following seven steps for teaching this technique:

1. Rationale and overview
2. Information giving
3. Acquisition and practice of direct action coping skills
4. Acquisition and practice of cognitive coping skills
5. Application of all coping skills to problem situations
6. Application of all coping skills to potential problem situations
7. Homework and follow up

Rationale. The first step in teaching cognitive stress inoculation provides the rationale for stress inoculation and an overview of the procedure. The instructor can make the explanation of the purpose of stress inoculation specific to the learners involved. An example of this would be

for people having difficulty controlling anger. When these people find themselves confronted with situations in which their temper is out of control, they have trouble managing their anger, especially when they feel provoked. This procedure can help them learn to cope with provoking situations and can help them manage the intensity of their anger when they are in situations so that it does not control them (Cormier & Cormier, 1979).

The first step in this process is to help the learners understand the nature of their feelings and how certain situations may provoke their feelings. Next they will learn some ways to manage their anger and to cope with situations in which they feel angry. After teaching these coping skills, the instructor will set up situations where the learners can practice using these skills to help them control their anger. The final objective of this first stage is to check to make sure that the learners understand the rationale and that they are willing to work at this procedure.

Information-giving. The second step in teaching cognitive stress inoculation is information-giving. Before people can learn and apply various coping strategies, it is important for them to be given some information about the nature of stress and how various coping strategies can help manage stress. Learners need a framework for viewing their emotional reaction, information about the phases of reacting to stress, and examples of possible types of coping skills.

The instructor should first explain the nature of the stress reaction. It should be noted that although understanding the stress reaction may not be enough to change it, the conceptual framework lays some groundwork for beginning the change process. People need to be made aware of the three components of stress: physiological, cognitive and behavioral. Understanding this will help them realize that coping strategies can be directed toward all

three components.

Next the instructor should explain the phases of the stress reaction. It is helpful for people to understand the possible times during which their arousal level may be heightened. Meichenbaum and Turk (1976) point out that anxious or phobic people tend to view their anxiety as one "massive panic reaction". Similarly individuals who are angry, depressed or experiencing pain may interpret their feelings as one large continuous reaction that has a certain beginning and end. Those who interpret their reactions this way may perceive the reaction as too difficult to change because it is so massive and overwhelming.

One way to help learners see the potential for coping with feelings is to describe the feelings by specific stages or phases of relating to a situation. Meichenbaum and Cameron (1973) label four stages to help people conceptualize the various critical points of a reaction: preparing for a stressful, painful, or provoking situation; confronting and handling the situation or provocation, coping with critical moments or with feelings of being overwhelmed or agitated during the situation, and rewarding oneself after the stress for using coping skills in the first three phases. Understanding these stages facilitates learning the specific sequences of coping.

The final section in information-giving is providing some information about the kinds of coping strategies that can be used at the various critical points. The instructor should emphasize that there are a variety of potentially useful coping skills and it is important for the learners to have input in selecting and tailoring these for themselves. In using stress inoculation, both "direct-action" and "cognitive" coping skills are taught (Meichenbaum & Turk, 1976). Direct-action coping strategies are designed to

be used as coping behaviors and cognitive skills are used to provide coping thoughts (self-statements) with which to handle the stress. Learners should understand that both kinds of coping skills are important and serve different functions. The direct-action skills help learners cope with situations, with their actions and behaviors. The cognitive skills help them learn to handle the situations by the way they interpret and think about them.

The learners begin by monitoring their stress levels in different situations, in order to identify which situations are more stressful than others. When the stressful situations have been identified, they then monitor their self-talk before, during, and after the stressful event. To do this, most people carry a small pocket notebook with them and write down the things they are saying to themselves in anticipation of the stressful event; these are the thoughts and self-statements running through their heads up to 30 minutes before they encounter the stressor. If possible, the self-talk is also recorded during the stressful event. When the nature of the stressor does not permit this, the self-statements are recalled and written down immediately following the event. Then, the self-talk is recorded for about 30 or 40 minutes after the stressor -- these are the specific things the people are saying to themselves during the "cool down" periods, after the stressful event is over.

After the self-monitoring, preferably over several instances of the same (or similar) stressor, the learners review their record of self-statements for the purpose of identifying common, recurring themes in their recording. The themes are then written down as specific self-statements. For example, a person who says "Will I be able to handle it?" before presenting a report in a meeting, is probably in reality, sending the message "I probably won't be able to handle it." The question reflects self-doubt, the statement makes



the self-doubt explicit. The purpose in the second step of stress inoculation training is to identify and write down the negative self-statements, that are common in the stressful experiences.

Direct-action coping skills. The third step in cognitive stress inoculation training is teaching coping skills. In this phase of stress inoculation, the learners acquire and practice some direct-action coping skills. The instructor first discusses and models possible action strategies and then the learners select some to use and practice them with the instructor's encouragement and assistance. The direct-action strategies are designed to help individuals acquire and apply coping behaviors in stressful situations. The most commonly used direct-action coping strategies include: (1) collecting objective or factual information about the stressful situation; (2) identifying short-circuit or escape routes, or ways to decrease the stress; (3) mental relaxation methods; (4) physical-relaxation methods.

Collecting objective or factual information about a stressful situation helps to evaluate the situation more realistically. Also, information about a situation may reduce the ambiguity for the learners and indirectly reduce the level of the threat. Collecting information about the nature of an anxiety-or anger-engendering situation serves the same purpose. For example, in using stress inoculation to help control anger, collecting information about the people who typically provoke them may help. Also, people can collect information that can help them view provocation as a task or a problem to be solved, rather than as a threat or personal attack.

Identifying escape routes is a way to help people cope with stress. The idea of an escape route is to short-circuit the explosive or stressful situation, thereby de-escalating the stress. This coping strategy may help

abusive people learn to identify cues that elicit their physical or verbal abuse and to take some preventive action before "striking out". These escape or prevention routes can be very simple ways to prevent losing control. Abusive people could perhaps avoid striking out by counting to 60, leaving the room, or talking about something humorous.

Mental relaxation can also help people cope with stress. Mental relaxation may involve attention-diversion tactics: angry people can control their anger by concentrating on a problem to solve, by counting floor tiles in the room, by thinking about a funny joke or by thinking about something positive about themselves. Attention-diversion tactics are commonly used to help people control pain. Instead of focusing on the pain, they may concentrate on objects, or on the repetition of specific words (mantras) or on numbers.

Some people find that mental relaxation is more successful when they use imagery or fantasy. People who enjoy daydreaming or who report a vivid imagination may find imagery a particularly useful way to promote mental relaxation. Imagery used as a coping method helps learners go on a fantasy trip instead of focusing on the stress, the provocation, or the pain.

Physical relaxation methods are particularly useful for people who report physiological components of anxiety and anger, such as sweaty palms, rapid breathing or heartbeat, or nausea. Physical relaxation is also a very helpful coping strategy for pain control, because body tension will heighten the sensation of pain. Physical relaxation may consist of muscle relaxation and breathing techniques. A more detailed description of these procedures is provided in the next section.

Each direct-action strategy should first be explained with discussion of its purpose and procedure. Several classes may be required to discuss and

model all possible direct-action coping methods. After the strategies have been described and modeled, learners should select the particular method to be used. With the instructor's assistance, they should practice using their selected skills in order to be able to apply them in simulated and real life situations.

Cognitive coping skills. The fourth step in cognitive stress inoculation training is teaching cognitive coping skills. This part of stress inoculation is very similar to the cognitive restructuring strategy. The instructor models some examples of coping thoughts that can be used during stressful phases of problem situations, and the learners practice by substituting coping thoughts for negative or self-defeating thoughts.

Cognitive coping can be used during any of the four phases of problem situations and the instructor may wish to review the importance of learning to cope at these crucial times. The instructors should point out that a set of cognitive coping skills can be learned for each important phase: preparing for the situation, confronting and handling the situation, and rewarding oneself after the situation. It should be noted that the first phase refers to coping skills before the situation, the second and third phases involve coping during the situation and the fourth phase refers to coping after the situation. Individuals need to learn coping skills that can be used at each of the four phases to help control negative thoughts. The first phase includes how to interpret the situation initially, and how to think about responding or preparing to respond. Second is actually dealing with the situation. Third is coping with anything that happens during the situation that really provokes the individual. Fourth, after the situation, individuals need to learn to encourage themselves for keeping their anger in control.

After explaining the four phases for using cognitive coping skills, the instructor should model possible examples of coping statements that are especially useful for each of the four phases. Meichenbaum and Turk (1976) have provided an excellent summary of these coping statements. These statements are summarized in Table 20 (Cormier & Cormier, 1979, p. 380).

After the instructor models some possible coping thoughts for each phase, the learners should add some of their own or select the ones that fit. The instructor should encourage them to use and adapt the thoughts in whatever way feels more natural. At this point in the procedure, the instructor should be helping to establish a unique coping program. The statements should be as specific as possible because if self-statements are too general, they may lead only to "rote-repetition" and not function as effective self-instructions (Meichenbaum, 1977).

After the individuals select coping thoughts to use for each phase, they should practice these self-statements by saying them aloud. This verbal practice is designed to promote familiarity with coping thoughts. After this practice, the learners should also practice the selected coping thoughts in the sequence of the four phases. This helps to facilitate learning the timing of the coping thoughts in the application phase of stress inoculation. This sequence can be practiced while imagining the phases of an actual mildly stressful situation.

Application of coping skills to problem situations. The next part of stress inoculation involves having the individuals apply both direct-action and cognitive coping skills in the face of stressful, provoking, or painful situation. Before individuals are instructed to use the skills in real life situations, they practice applying coping skills under simulated conditions with the instructor's assistance. The application phase of stress

Table 20  
Coping Statements

Preparing for a stressor:

What is it you have to do?  
Just think about what you can do about it.  
No negative self-statements; just think rationally.  
Don't worry; worry won't help anything.  
You can manage this situation. You have the skills.  
Time for a few deep breaths of relaxation. Feel comfortable, relaxed, at ease.

Confronting and Handling a Stressor:

Just "psyche" yourself up—you can meet this challenge.  
One step at a time; you can meet this challenge.  
Don't think about fear; think about what you have to do.  
This anxiety is what the instructor said you would feel.  
It's a reminder to use your coping exercise.  
Relax; you're in control. Take a slow deep breath.  
Stay calm. Just continue to relax.

Coping with arousal, agitation and feelings of being overwhelmed:

When fear comes, just pause.  
Keep the focus on the present; what is it you have to do.  
Label your fear from 1-100 and watch it change.  
Don't try to eliminate fear totally; just keep it manageable.  
It will be over shortly.  
Do something that will prevent you from thinking about fear.  
Your muscles are starting to get tight. Time to relax and slow things down.  
Time to take a deep breath.

Reinforcing Self-Statements:

It worked; you did it.  
It wasn't as bad as you expected.  
Its getting better each time you use the procedure.  
You can be pleased with the progress you're making.  
You actually got through that without getting upset.  
Good, you did it.  
You handled it well.

inoculation appears to be important for the overall efficacy of the procedure. Meichenbaum and Cameron (1973) point out that simply having an individual rehearse coping skills without opportunity to apply them in stressful situations seems to result in an improved but limited ability to cope.

The application phase involves providing exposure to simulations of problem-related situations. During this application practice, it is important that the individual be faced with a stressful situation and also practice the skills in a coping manner. The application should be arranged and conducted as realistically as possible. This type of application practice is viewed as providing a self-model of how to behave in a stressful situation. By imagining faltering or losing control, experiencing anxiety, and then coping with this, the individual practices the thoughts and feelings as they are likely to occur in a real-life situation (Meichenbaum, 1977). In the application phase of stress inoculation, the anxiety or anger is used as a cue or reminder to cope.

The instructor should first model how the newly acquired skills can be applied in a coping manner. The following is an example of an instructor demonstrating this process with an individual who is training to control anger:

I am going to imagine that I just got falsely accused of cheating on a final exam. I can feel myself get really hot! Whoops, wait a minute. That's a signal. I'd better start using my relaxation methods to stay calm and use my coping thoughts to prepare myself for handling this situation constructively.

O.K., first of all, sit down and relax. Let those muscles loosen up. Count to ten. Breathe deeply. O.K. I will be able to speak to my teacher shortly. What is it I have to do. I know it will not help to lash out or become upset with him. That won't solve anything, I'll work out a different plan. Let him do most of the talking so that we can clear up this mistake as soon as possible. O.K., now I see him walking in the door. I feel sort of choked up. I can feel my hands starting to get tight. He is starting to explain. I feel like interrupting him and

letting him have it. But wait...that arousal's a cue. Concentrate on counting and breathing slowly. Now just tell myself to keep cool. It seems that there has been some sort of mistake and everyone is really sorry for the inconvenience. They hope that I was not too upset by the whole thing. All I can say is that I am glad that I was able to stay so calm. I could really have made a mess out of this situation but I didn't. This stress inoculation stuff really seems to work. (Cormier & Cormier, 1979, p. 383)

After the instructor has modeled, the learner should practice a similar sequence of both direct-action and cognitive coping skills. The practice can occur in two ways: imagination and role play. It is often useful to first practice the coping skills while imagining problem-related situations. The practice can be repeated until the learner feels very comfortable in applying the coping strategies to imagined situations. Next they can practice the coping skills with the instructor's aide in a role-play of a problematic situation. The role-play practice should be similar to the real-life situations. People can imagine each situation and imagine using coping skills. Then, with the instructor taking the part of a provoker, they can practice the coping skills in role-play.

Application of coping skills to potential problems. It is important to remember that procedures such as stress inoculation training should be designed not only to help deal with current problems but also to help anticipate constructive handling of potential problems. An adequate strategy should prevent future problems as well as resolve current ones. The prevention aspect of stress inoculation is achieved by having people apply newly learned coping strategies to situations that may not be problematic now but could be stressful in the future. If the learners phase of stress inoculation is ignored, the effects of the inoculation may be very temporary. If individuals do not have an opportunity to apply the coping skills to situations other than the current problem-related ones, their

coping skills may not generalize beyond the present problem situations.

Application of coping skills to other potentially stressful situations is accomplished in the same way as application to the specific problem areas. First, after explaining the usefulness of coping skills in other areas of life, the instructor demonstrates the application of coping strategies to a potential, hypothetical stressor. The instructor might select a situation the individual has not yet encountered, although the situation would require active coping for anyone who might encounter it. Such situations could include not receiving a desired job promotion or raise, facing a family crisis, moving to a new place, anticipating retirement, becoming very ill, and so on. After the instructor has modeled application of coping skills to these sorts of situations, the learners should practice applying the skills in similar situations with which they can identify. The practice can occur in imagination or in role-play enactments.

Homework and follow-up. When people have learned and used stress inoculation within the training session, they are ready to use coping skills "in vivo". The instructor and learner should discuss the potential application of coping strategies to actual situations. The instructor should caution them not to expect to cope perfectly with every problematic situation initially. They should be encouraged to use a daily log to record the specific situations and the number of times the coping strategies are used. The log data can be used in a subsequent follow-up session as one way to determine progress.

Summary. Cognitive stress inoculation training is one of the most comprehensive techniques presently in use. Teaching both direct-action and cognitive coping skills that can be used in current and potential problematic situations provides skills that are applicable to future as well as current



situations (Cormier & Cormier, 1979).

Regardless of the level of intervention or the specific stress management strategy, cognitive interventions all attempt to create a more positive, realistic and self-supportive mental set. Such a mental set typically has a powerful inhibitory effect on stress.

#### Suggested Readings

Benson, H. The mind/body effect. New York: Simon and Schuster, 1979.

Butler, P. Talking to yourself. San Francisco: Harper & Row, 1981.

Cormier, W. H., & Cormier, L. S. Interviewing strategies for helpers. Monterey: Brooks/Cole, 1979.

## CHAPTER 10

### PHYSIOLOGICAL INTERVENTIONS

The goal of these stress management strategies is to develop a physiological response that is antagonistic to the "fight or flight" response. Such responses are usually referred to as relaxation responses. Traditionally, relaxation procedures have included such strategies as progressive relaxation (Jacobson, 1938), autogenic training (Luthe, 1977), self-hypnosis (Le Cron, 1964), transcendental meditation (Denniston & McWilliams, 1975), yoga or other forms of meditation (White & Fadiman, 1976) and Benson's relaxation response (Benson, 1976).

#### The Nature Of Relaxation

The effects of regular relaxation are well documented (Benson, 1976, Everly & Rosenfeld, 1981). Before discussing specific relaxation strategies it is important to review what relaxation is, its benefits, what it feels like, and some general hints for learning a relaxation technique.

Over time, most people develop habitual stress reactions that occur automatically in the face of certain environmental situations. Most people encounter situations in which they usually react in a stressful way. However, few people realize that it is possible to develop a relaxation response that can occur just as automatically, even in stressful situations. Some people seem to stay naturally relaxed in stressful situations. Some people seem to become naturally uptight in the same situations. The important point is that it is possible, for those who are not naturals, to develop the ability to relax and stay more relaxed (Hiebert, 1980).

A relaxation response is the opposite of a stress response. When people are stressed they usually experience a combination of: increasing heart rate,

increasing respiration rate, increasing sweat gland activity, increasing muscle tension and decreasing hand temperature. Typically, when people relax they experience: decreasing heart rate, decreasing respiration rate, decreasing sweat gland activity, decreasing muscle tension and increasing hand temperature. Thus when a person relaxes, the physiological processes function in an opposite manner from when a person is stressed. In fact, deep relaxation is incompatible with anxiety. A person cannot be relaxed and anxious at the same time (Wolpe, 1969). Therefore, if individuals learn a relaxation response, they can use it to counteract a stress response. This new ability to relax can inhibit the old habit of being stressed.

To some people it will seem contradictory to talk about learning to relax. Many people report that the more they try to relax, the more pressured they become. What is necessary is a procedure that will produce relaxation as a by-product. People can learn and practice such procedures to the point where they produce a relaxation response without trying too hard. They are then ready to use their new skill to counteract the effects of stress.

At this point it may be appropriate to dispel an old myth. Many people believe that "it is good to be under stress". They feel that if they were never stressed, they would never get anything done. In actual fact, there is a growing amount of evidence to suggest that the opposite is true (Hiebert, 1980). When people are relaxed typically they: become more perceptive (Denniston & McWilliams, 1975); are more efficient, better problem solvers (Albrecht, 1979); remember things better (Smith, M., 1975); and suffer fewer health problems (Lamott, 1975). When people are more relaxed, they typically accomplish more, in less time, with fewer negative side effects.

When people begin to develop a relaxation response, they often want to

know in advance what to expect from this new experience. This presents a problem because it is difficult to describe precisely how it feels to be deeply relaxed. Most people describe it as a "different", "fuzzy" type of feeling. Their body feels heavy and pleasantly warm, especially the hands, arms, feet and legs. Many individuals report a calm and peaceful feeling where they feel more in control and more secure. Other people report feeling; they are "drifting off" somewhere. The particular feeling varies from person to person. As people practice relaxing, the sensations they experience usually become more profound and more pleasant as they become more familiar with the feeling. When individuals begin their relaxation training, it is important for them just to focus on the practice and let their bodies go, rather than trying to produce a particular feeling.

Generally speaking, when people relax, their body slows down. If being monitored by a polygraph while relaxing they would be able to observe a decrease in muscle tension, heart rate, blood pressure, breathing rate, and skin conductance, and an increase in hand temperature. Although accurate monitoring of these bodily functions is usually accomplished using sophisticated equipment, it is possible to obtain some reasonably accurate indicators of relaxation. Most people can learn to take their pulse, respiration rate and hand temperature, before and after relaxation. These measures are good indicators of the degree of relaxation (Hiebert, 1980).

After people have developed skill at relaxing it is possible to turn their attention to ways in which they can use their ability to relax in their daily lives. Many people use the relaxation sequence to help them go to sleep at night. When they lay down on their beds they make suggestions for a peaceful sleep with muscle tensions draining away, and a suggestion as to when they will wake up, feeling full of energy and really refreshed. When

people practice using relaxation in this way it seldom takes them longer than 10 minutes to fall asleep, and they usually wake up within a couple of minutes of their suggested awakening time.

Regular periods of relaxation can also be used to offset chronic tension spots. The procedure is to first go through the regular relaxation practice along with the deepening and reward portions. People then go back and "review" the muscles involved in their tension spot. They start with a muscle group that is close to the tension spot but still relaxed and work slowly towards the tension spot giving suggestions that the relaxation is spreading, the muscles becoming more smooth and more relaxed, tension draining away, muscles smoothing out and becoming calm.

Regular relaxation can also be used as a form of immunization. There is considerable evidence to suggest that regular use (once or twice each day) of some form of deep relaxation lowers the general (normal) level of body tension (Hiebert, 1980). An important result of regular relaxation practice and the accompanying lower baseline (normal) tension levels, is typically a reduction in the intensity of stress reactions. Most people have experienced one of those days when they feel good and somehow very little will upset them. Regular use of a relaxation period has a similar effect. Individuals feel better because their general tension levels are lower. The regular use of a relaxation period lowers baseline tension levels and reduces the reactivity especially to those unexpected and unavoidable stressors that most people encounter.

Regular use of relaxation can help to counteract the effects of stress. The procedure works in a similar way to which a medical inoculation works. Individuals get a flu vaccination in the fall so that they will not get the flu in the winter. Children receive a series of sabin oral vaccine to help

prevent polio later in their lives. People engage in regular periods of relaxation now (to lower and keep low baseline tension levels) to counteract the effects of stress when they encounter it. The key is regular use of some form of relaxation. Knowing what has just been said will not reduce the effects of stress. Only doing it, regularly practicing relaxation, will produce the effect. Regular relaxation will serve to help immunize against the effects of stress (Hiebert, 1980).

In order to develop skill at relaxing, it generally takes 4 - 6 weeks practicing 20 - 30 minutes every day. There are three important things to remember when learning to relax. The first is that deep relaxation is a highly specific neurological state of the body (Benson, 1974). People cannot reach this state merely by sitting or lying down quietly. It requires a specific mental approach. The second thing to remember is that relaxation is a skill that can be learned, just like riding a bicycle or hitting a tennis ball are skills that people can practice and learn. The third, and perhaps the most important thing to remember is not to "try". Usually when people try to relax, they become more anxious. The effort of trying to relax prevents them from becoming relaxed. As a result, what is necessary is a strategy that can be followed that will yield deep relaxation as a by-product.

#### Use-As-Required Procedures

There are several abbreviated relaxation procedures that fit into the "use-as-required" category because they require only initial practice to develop skill (but not continuous use to sustain an effect) or utilize such a low level of skill acquisition so as to place the procedure within most people's skill repertoires with little or no initial practice.

#### Cue-Controlled Relaxation

Cue-controlled relaxation has been found to be as effective as regularly

practiced relaxation in reducing general tension (Hiebert, 1980). This procedure involves pairing a stimulus cue with progressive relaxation exercises (or some other relaxation induction procedure) until the cue is sufficiently strong to elicit a relaxation response. Once the cue has been established, individuals use the stimulus cue to elicit relaxation whenever increases in arousal that might interfere with daily living are perceived.

The technique works as follows: when people can relax their bodies without the aid of a relaxation (or other training device) it is time to start to cultivate the relaxation CUE (Hiebert, 1980). Towards the end of the 3 - 4 week relaxation training period most people begin to notice that if they are in a quiet place, they can simply use their relaxation CUE and it will trigger the feeling of relaxation. This is the first indication that a strong association is developing between the CUE and the relaxation response. The next step is to expand the number and types of situations where the relaxation CUE will work. To do this, it is usually best to proceed gradually. Begin with undemanding, ideal situations where people are sure their CUE is strong enough to produce relaxation. Individuals should try a variety of such situations, lying on a sofa, sitting in a chair, or riding the bus, etc. They should gradually try to use their CUE in more demanding situations, keeping in mind that they want to proceed gradually so that they ensure their CUE will work in the new situation. They should also keep in mind that their CUE can be used while walking, but that the degree of relaxation will not be as great as if they were sitting in their favorite easy chair. When they have a well developed relaxation CUE they can use it for a "mini-relax" many times during the day.

After developing a strong relaxation CUE it is possible to use it to combat stress in an active, coping manner. Individuals must first engage in

some form of ongoing self-observation or self-monitoring so they know when they are becoming stressed. Then, when catching themselves tensing, their CUE to arrest a rising tension can be used. There are two steps. First individuals catch themselves tensing, then second they use their CUE to relax. Individuals can also use their CUE before an anticipated stressful experience to help them stay relaxed. For example, while walking to the boss's or principal's office, they could use their CUE several times to stay relaxed, or while they are being introduced for an after dinner speech they could use their CUE to stay relaxed and calm. The CUE can also function to help relax back to normal after experiencing an unexpected stressor. For these unexpected stressors, as soon as people catch themselves tensing they should use their CUE to relax back to normal. In each case they are actively engaging in a coping strategy to combat stress; they are catching themselves tensing and using their CUE to relax again.

#### Differential Relaxation

Differential relaxation is also reported to work effectively on a "use-as-required" basis (Hiebert, 1980; Walker, 1975). This procedure involves differentially relaxing only selected muscle groups in certain settings (usually those muscles not required to execute the behaviors in question).

After 3-4 weeks of daily relaxation practice most people are ready to begin differential relaxation training. The underlying principle is that it is possible to relax selectively various parts of the body while the rest of the body remains active. For example, it is possible to relax the arms and shoulders while walking, or relax the legs while sitting in a lecture taking notes. In fact, regardless of what people are doing during the day, there is some part of their body that they could be relaxing. If people use



differential relaxation, there will be a net energy savings at the end of the day because some part of their body has been relaxing during the day.

To develop the ability to relax differentially, there are two guiding principles: work from undemanding activities to more demanding activities, and work from large muscle groups to small muscle groups. Here is an example: begin with an undemanding activity like watching television and practice relaxing the legs. People relax their legs, then check in with the show, then check back with their legs, and so on. When people can relax their legs and watch television then they proceed to practicing relaxing their arms while watching television. Gradually they work towards small muscle groups, like shoulders, neck, forehead, jaw, while continuing to watch the television show. They then move to a more demanding task, like sitting in a lecture or a board meeting, or at their office desk, and practice relaxing their legs. With some practice they will be able to relax their shoulders while driving their car or relax their forehead (and hence their tension headache) while riding the bus home from work. With practice it is possible to focus differentially relaxing particular tension spots (Hiebert, 1980).

#### Quieting Response

Recently, Stroebel (1978) has introduced "The Quieting Response". This is a relatively easy procedure to learn and involves the perception of tension. The enactment of a "Quieting Reflex" combines two four-count breaths and the image of a wave of relaxation sweeping through the entire body with a self-reinforcing statement. Stroebel recommends practicing this procedure at least 10-50 times per day, or whenever tension is noticed. Data is accruing to suggest that the "Quieting Response" may be an effective stress management strategy (Ford, Stroebel, Strony & Szarek, 1981).

Stroebel (1978) has developed a systematic procedure for teaching children the Quieting Reflex. The same format can be used to teach adults the five step program. The basic objective of the Q.R. is for the learner to use the six-second Quieting Reflex automatically.

The five steps of the "Quieting Reflex" are designed to counteract the physiological components of the emergency reaction. The steps of QR are as follows:

1. Awareness of a worry, annoyance, anxiety.
2. Smile inwardly, sparkle the eyes and give the suggestion "I can keep myself calm."
3. Breathe in an easy natural breath and imagine that the air is coming in through the bottoms of the feet.
4. Let the jaw, tongue and shoulders go loose at the beginning of the exhale.
5. Feel a wave of limpness, warmth and heaviness flowing to the toes as the breath continues to be exhaled.

The person continues normal activity. Using the "Quieting Reflex" has taken only six seconds and with practice the Q.R. becomes virtually automatic. The six steps are outlined below:

Step 1. Awareness of a worry, annoyance, anxiety. Many children and adults become so accustomed to the presence of stress and tension in their lives that they lose the ability to discriminate between high arousal which is characterized by tension, anxiety, nervousness, and excitement and low arousal which is characterized by calmness, quiet, and relaxation. In this step, people are taught to develop a greater self-awareness of events that make them feel upset and anxious and occurrences that help them feel calm and at ease. They are also helped to discriminate between appropriate and inappropriate responses to stress.

Step 2. Smile inwardly, sparkle the eyes and give the suggestion, "I can keep myself calm." This step promotes a quiet sense of amusement and a letting go of the facial muscles around the mouth and eyes. This letting go relieves the grim musculature of the face, characteristic of tension. The simple exercise of smiling inwardly and 'sparkling' -- as we call it -- goes with the suggestion that one's body can be calm. People need to understand that they should smile "inside themselves" or "privately." A big grin to an angry teacher or parent can get them in trouble. The purpose of suggesting to themselves that they can keep calm gives them a choice in dealing with negative, fearful or angry thoughts that often occur.

Step 3. Breathe in an easy, natural breath and imagine that the air is coming in through the bottoms of the feet. Breathing is the basic rhythm of life. Its regular easy periodicity has a profound calming influence on the body. Many people, who have taken part in various yoga programs, have experienced the changes that go with easy, natural breathing. The "holes in the feet" imagery is used both to slow the breathing and also to help "reverse" breathers (those who contract their abdomens when they inhale), breathe naturally. Individuals imagine that they are breathing air in through the bottoms of the feet or through "imaginary holes" in their feet and then imagine breathing the air all the way up through the body to the shoulders.

The crucial objective is to develop an awareness of inappropriate breathing patterns and also to recognize that everyone has an inner power for modulating breathing to a comfortable and calming pace.

Step 4. Let the jaw, tongue and shoulders go loose at the beginning of the exhale. This step has several objectives, including releasing the muscle tension of clenched teeth, of a thrusting tongue, and of tense shoulder

muscles. During the training elements people experience the sensation of jaw looseness by placing their fingers on their chins and noticing how they can manipulate their jaws into a comfortable loose position to relieve the tension of the powerful facial muscles. They also practice dropping their shoulders to let go of tension there.

Step 5. Feel a wave of limpness, warmth and heaviness flowing to the toes as the breath continues to be exhaled. This step follows the last step immediately, almost simultaneously as the jaw, tongue and shoulders let go, people begin to breathe out, sensing and imagining the breath traveling downward through their bodies. The sensations of limpness, warmth and heaviness are imagined and soon experienced. The sensation of warmth and heaviness is the feeling that most often accompanies changes in blood flow when measured physiologically.

Once this single breath has been comfortably exhaled, and this occurs in six seconds or less, the QR is completed. People can then continue talking, writing, doing whatever they were doing. But they continue with calmer, quieter bodies and alert minds. The QR is unlike other types of relaxation exercises which involve dropping out, becoming inattentive to, or out of touch with, the learning or doing process. The purpose of using QR is to optimize performance in all situations by adjusting the physiological arousal level downward when that is appropriate.

Regular practice of the QR is crucial in order to achieve automaticity. Regularity in practicing the QR is easy to achieve in most situations. People can choose several of their own specific annoying or tense situations and elicit a QR each time the annoyance occurs. Adults, for example, frequently do QR's whenever they come to stop signs, wait in store checkout lines, or put down the phone at the end of a conversation. Many other

possibilities for application of the QR technique, both at home and at work, will occur to people as their awareness of stressful events heightens. What is critical is that the basic QR program sequence be followed. Only by doing the QR as described above will the physiological benefits of QR be attained.

Stroebe (1978) has a training program for the classroom that is designed to be taught in ten-forty minute lessons. QR For Young People (Holland, 1980) consists of the following parts: an instructors manual, the QR Log to be used by the children, and four cassette tapes which contain the six training elements plus 25 brief reinforcement exercises. The instruction package is available through the QR Institute, 119 Forest Drive, Withersfield, Conn. 06109.

#### Use Continuously Strategies

These procedures require regular practice in order to train the skill and to maintain the effect.

#### Progressive Relaxation

Progressive relaxation is sometimes referred to as muscle relaxation because it focuses on the physical sensations of progressively relaxing muscle groups. In progressive relaxation, people are taught to relax by becoming aware of the sensations of tensing and relaxing major muscle groups. Jacobson (1938) developed this procedure that teaches people that relaxation is incompatible with tension because a muscle cannot be tensed and relaxed at the same time.

One caution when beginning a progressive relaxation program is to make sure people are medically cleared to engage in muscle relaxation (Berstein, & Borkovek, 1973). People who suffer headaches or lower-back pain may have an organic basis for these complaints. Also, people may be taking drugs that are incompatible with the purpose of muscle relaxation.

Training in muscle relaxation consists of seven steps:

1. Rationale and overview
2. Instructions about dress
3. Creation of a comfortable environment
4. Instructor modeling of the relaxation exercise
5. Instruction for muscle relaxation
6. Post training assessment
7. Homework and follow-up

Rationale and overview. The first step provides an explanation of the purpose of relaxation. It should be explained that the relaxation process, if practiced regularly, can help people become relaxed. The relaxation benefits derived include better sleep at night and fewer health problems. The procedure involves learning to tense and relax different muscle groups. By doing this, people can contrast the difference between tension and relaxation. This will help them recognize tension, so they can instruct themselves to relax.

It should be noted that progressive relaxation is a skill. The process of learning will be gradual and will require regular practice. The instructor should also inform learners that they may experience some discomfort during the relaxation and if this occurs they should feel free to move to a more comfortable position. They should also outline some of the common feelings of relaxation. These include experiencing some floating, warming or heavy sensations which are all common for people learning muscle relaxation. The last part of the overview is to check to make sure that the learners are willing to try the procedure.

Instructions about dress. The second step in teaching progressive

relaxation is to provide instructions about what to wear for training sessions. People should wear comfortable clothes such as slacks, a loose-fitting blouse or shirt, or any apparel that will not be distracting during the exercise. Also people who wear contact lenses should be instructed to wear their regular glasses for the training. They can take the glasses off while going through the exercises. It may be uncomfortable for people to wear contacts when their eyes are closed.

A comfortable environment. The third step is to create a comfortable environment. Such an environment is necessary for effective relaxation. The training environment should be quiet and free from distracting noises such as telephones ringing and voices from other areas. Individuals should find a comfortable position on the floor on their backs, with their legs stretched out and their arms along their sides with palms down.

Modeling the relaxation exercises. The fourth step in learning progressive relaxation is for the instructor to model some of the exercises. Immediately before the relaxation training begins, the instructor should model briefly at least a few of the muscle exercises that will be used in training. The instructor can start with either the right or left hand (make a fist, then relax the hand, opening the fingers; tense and relax the other hand; bend the wrist of both arms and relax them; shrug the shoulders and relax them). The instructor should continue to demonstrate some of the other exercises while explaining that the demonstration is going at a much faster rate than the speed at which the exercises will be performed. The instructor should model demonstrating the contrast between tension and relaxation by building it into the demonstration. The instructor could comment "When I clench my biceps like this, I feel the tension in my biceps muscles, and now when I relax and drop my arms to my side, I notice the difference between the

tension that was in my biceps and the relative relaxation I feel now".

Instructions for muscle relaxation. Muscle relaxation training can now be started. While delivering (or reading) the instructions for relaxation-training exercises, the instructor's voice should be conversational, not dramatic. The instructor should practice along with the learners during the beginning exercises. Practicing initial relaxation exercises can provide the instructor with a sense of timing for delivering the verbalizations of relaxing and tensing. In instructing the individuals to tense and relax muscles, learners must be reminded to to tense only as hard as necessary to feel the tension. They should not tense too hard because it is possible to strain a muscle. The various muscle groups used for training can be categorized into 17 groups, 7 groups or 4 groups. These sets of muscle groups in Table 21 were adapted from Bernstein and Borkovek (1973).

Generally in initial sessions the instructor should train learners to go through all 17 muscle groups. When they can alternately tense and relax each of the 17 muscle groups upon command, they can begin to work on the following abbreviated procedure. The following is a sample of a relaxation exercise (Hiebert, 1980, p. 41 - 46).

"The purpose of this exercise is to teach you deep muscle relaxation. If you practice, you can learn to relax at will; to put yourself into a very pleasant and comfortable state known as deep relaxation. I'd like you to start by loosening any tight clothing, finding a comfortable position and then closing your eyes. This method works by teaching you to identify tension in various parts of your body and then to identify the opposite of that tension, which is deep relaxation.

I'd like you to clench your right hand into a fist...clench your right hand into a fist and just think about the tension in your right hand.....Feel the knuckles becoming white with tension...and then let it relax. Notice the contrast between the tension and the relaxation..... Once again, clench your right hand into a fist and study the tension in your right hand....and



Table 21  
Muscle Groups For Progressive Relaxation

<u>17 Muscle Group</u>	<u>7 Muscle Group</u>	<u>4 Muscle Group</u>
1. Clenching fist of dominant hand	1. Hold dominant arm in front with elbow bent at about 45 degree angle while making a fist( hand, lower arm and biceps muscles).	1. Right and left arms, hands and biceps(same as 1 & 2 in 7 muscle group).
2. Clenching fist of non-dominant hand.	2. Some exercise with non-dominant arm.	2. Face and neck muscles. Tense all face muscles (same as 3 & 4 in 7 muscles group)
3. Bending wrist of one both arms.	3. Facial muscle groups. Wrinkle forehead(or frowns), squint eyes, wrinkle up nose, clench jaw or press tongue on roof of mouth, press lips or make a big smile.	3. Chest, shoulders, back, and stomach. (same as 5 in 7 muscles group).
4. Clenching biceps(one at a time or together).	4. Press or bury chin in chest(neck and throat).	4. Both left and upper leg, calf and foot(same as 6 & 7 in 7 muscles group).
5. Shrugging shoulders(one at a time or together).	5. Chest, shoulders, upper back, abdomen. Take a deep breath, hold it, pull shoulder blades back and together, while making stomach hard (pulling in).	
6. Wrinkling forehead.	6. Dominant thigh, calf, and foot. Left leg in air while pointing toes and turning foot inwards	
7. Closing eyes tightly.	7. Same as 6. with non dominant leg.	
8. Pressing tongue or clenching jaw.		
9. Pressing lips together.		
10. Pressing head back.		
11. Pushing chin into chest.		
12. Arching back.		
13. Inhaling and holding chest muscles.		
14. Tightening stomach muscles.		
15. Contracting buttocks.		
16. Stretching legs.		
17. Pointing toes toward head		

then let it relax. Notice the pleasant contrast between tension and relaxation.

Now clench your left hand into a fist and study the tension in your left hand....Then let it relax. Notice the contrast between tension and relaxation.....Once again, clench your left hand into a fist and study the tension in your left hand..... And then let it relax -- just let it go loose and limp and relaxed.....

Now bend your right hand at the wrist and point your fingers up to the ceiling. Study the tension in your right wrist and forearm, and then let it relax..and feel the contrast between tension and relaxation. Once again, bend your right hand at the wrist and point your fingers up to the ceiling.... Feel the tension in your right wrist and your forearm....and then let it relax, noting the contrast between tension and relaxation.....

Now bend your left hand at the wrist; point the fingers up to the ceiling.....and then let it relax..... Just go loose and limp and very relaxed.... Once again, bend your left hand at the wrist, pointing the fingers up to the ceiling, study the tension in your left wrist and forearm.... and then let it relax. .... Notice the contrast between tension and relaxation. ....

Now I'd like you to flex both of your biceps muscles by bringing your hands up to your shoulders. Bring your hands up to your shoulders, flex both of your biceps muscles....study the tension in your biceps....and then let them relax..... It's not necessary to tense your muscles so much that you get a cramp, only just to tense them enough so that you can feel the tension. Once again.....flex your biceps muscles.....bringing both hands up to the shoulders, and then let them relax...just go loose and limp and relaxed.....

Now shrug your shoulders up to your ears. Study the tension in your shoulders and the base of your neck....and then let your shoulders relax. Notice the pleasant contrast between the tension and the relaxation.....Once again, shrug your shoulders up to your ears....study the tension in your shoulders and the base of your neck....and then just let them relax...Just sag down...loose and limp and very relaxed.....

Now wrinkle up your forehead by raising your eyebrows up to the top of your head.....Study the tension in your forehead...and then let it relax..... Once again, raising your eyebrows up to the top of your head....study the tension in your forehead....and then let it relax....let your forehead become more and more smooth, more and more relaxed.....

Close your eyes very tightly....Study the tension around your eyes, the bridge of your nose... Squint your eyes tightly, study the tension, and then let them relax.....Once again, squinting your eyes very tightly....study the tension around your eyes and the bridge of your nose....and then let them relax.... Let them relax and just slightly close.....

Now make a big smile, as if to touch both ears. Study the tension in your cheeks and in your mouth....and then let it relax, feeling the contrast between tension and relaxation....Once again, making a big smile as if to touch your ears....study the tension in your mouth and your cheeks...and

then let it relax....noticing the pleasant contrast between tension and relaxation...

Now I'd like you to press your tongue up against the roof of your mouth.,... and study the tension inside your mouth....and then let it relax....Once again, pressing your tongue up against the roof of your mouth...study the tension inside your mouth, and then let it relax.....

bury your chin in your chest.....Study the tension in the front of your neck, and your chin....and then let it relax.....Notice the contrast between the tension and the relaxation....Once again, bury your chin in your chest....and study the tension in your chin and the front of your neck.....and then let it relax.....feeling the pleasant contrast between tension and relaxation....

Now, I'd like you to press your head back, against the back of a chair or the bed, or whatever. Study the tension in the back of your neck....and then let it relax....Once again, pressing your head back....study the tension in the back of your neck....then let it relax....let those muscles go loose and limp...and relaxed....

Feel that relaxed feeling now....in your forehead...your forehead is becoming more and more smooth, more and more relaxed.... That relaxed feeling is spreading down through your face....as your eyes relax....your cheeks relax....your mouth relaxes....your jaw and your chin relax....that relaxation flowing down into your neck....down into your shoulders....down into your biceps, so relaxed.....your forearms relaxed....that relaxed feeling spreading down through your wrists ...and into your hands...and all the way down to the tips of your fingers.....very warm...and very relaxed.....

Now, take a deep breath and hold it....Take a deep breath and study the tension in your chest....and then let it relax.....Once again, taking a deep breath...and holding it....and study the tension in your chest....and then let it relax....let your breathing become more and more regular....more and more relaxed.....More relaxed with every breath.....

Now tighten up your tummy muscles....Study the tension in your abdomen....then let those muscles relax....Once again, tensing the stomach muscles, study the tension in your stomach....and then let them relax....Feel that pleasant contrast between tension and relaxation.....

Now tighten up your buttock muscles....Study the tension in your buttocks and hips....and then let them relax....Once again, tighten up your buttocks muscles....study the tensions....and let them relax. Let that feeling of deep relaxation....spread down into your buttocks and hips.....

Now, tighten up your thighs....Study the tension in your thighs.....and then let them relax.....Once again, tighten up your thighs....Study the tension in your thighs...and then let them relax....

Now point your toes away from your face....Study the tension in your lower legs and your ankles....then let them relax..... Once again, pointing your toes away from your face.....study the tension in your ankles and lower leg....and then let them

relax....Feel that pleasant contrast between tension and relaxation....

Now curl up your toes....curl them up inside your shoes or whatever....Study the tension in your feet and your toes....and then let them relax....Once again, curl up your toes and study the tension in your feet and your toes....and then let them relax....Let that feeling of relaxation....flow down into your feet....and down into your toes.....

You are doing a good job of relaxing. Your whole body is starting to relax and now to help you relax even further....I am going to review the different muscle groups that we've relaxed, and as I mention each one, they will become even more relaxed than they are now....As I mention each muscle group....it will relax even further than it already is....your fingers relaxed....your hands and your wrists relaxed....your forearms relaxed....your biceps relaxed.....and that relaxed feeling flowing up into your shoulders....along the back of your neck over the top of your head, are the muscles in your scalp relaxing....and the relaxation spreading down to your forehead....your forehead becoming more and more smooth....and more and more relaxed....The relaxation....spreading down through your face....as your eyes relax....and your cheeks and your mouth relax....and relaxed feeling spreading down into your chest....your breathing becoming more and more regular....more and more relaxed....The relaxation spreading down through your stomach....around the sides and into your back....up and down your spine.....all those muscles relaxing....relaxation spreading down into your hips...and your shins and ankles relax.....Deep relaxation flowing down into your feet....all the way down into the tips of your toes.....Relaxation coursing through your veins....bathing your whole body....a peaceful, tranquil feeling of relaxation.

You are doing a good job of relaxing. Even when we are as relaxed as we think we can be...there is still an extra measure of relaxation. To help your body to become even more relaxed than it is....I'm going to ask you to imagine yourself standing beside a long, black wall, on which the numbers from one to ten are painted....in great big, white numbers. I'm going to ask you to imagine yourself....standing there beside the number one....and starting to stroll along beside the wall....and as you pass by each number, your body will become more relaxed...more and more relaxed as you pass by each number....Even more relaxed than it is now.....

Okay, imagine yourself standing beside the long black wall....and starting to stroll along beside the wall now....You pass by the number "One" and you become more relaxed....And you pass by "two"....and more relaxed.....And more relaxed as you pass by "three".....and "four"....and more relaxed....."five" and more relaxed.....And more relaxed as you pass by "six".....and "seven".....And even though you didn't think it possible....as you pass by "eight".....you become even more relaxed.....And more relaxed as you pass by "nine".....and "ten".....Deep, deeply relaxed.....

Stop imagining that now.....and imagine your special relaxation place. It's your own private place...where you can go to relax.....Perhaps it's a place where you went as a child....where you felt very secure.....and very warm....and relaxed....Imagine yourself in your relaxation place.....while you continue to soak up those feelings of deep relaxation.....

You've been doing a good job of relaxing....Your whole body ...is warm and comfortable....very, very relaxed....You're feeling really good because you've relaxed so deeply....feeling more confident....more certain of your ability to cope with your problems.....more confident about your ability to handle the demands that are placed upon you.....feeling really, really good to be so relaxed.....

You can become just as relaxed as you are now whenever you want to....Simply by taking two four-count breaths ....a four-count breath in....and a four-count breath out....and a four-count breath in ....and on the last four-count breath out,...letting your jaw sag....letting that relaxed feeling spread down through your chin....and up through your face....and down through your neck....and shoulders...and arms...chest and stomach....down through your forearms and wrists....and hands and fingers.....letting that relaxed feeling spread down through your hips and buttocks....and down through your legs....your thighs, and your calves...and shins....and ankles....and all the way down to the tips of your toes.....This is called the 10-second relaxation exercise.....You can become just as relaxed as you are now....simply by counting to four as you breathe in....and counting to four as you breathe out....and a second four-count breath in....and a four-count breath out....and on that second four-count breath out...letting your jaw sag....and letting this wonderful feeling of relaxation spread down through your jaw and chin....and up through your body.....I'd like you to practice that right now....practice this 10-second exercise....making yourself very relaxed.....So-o-o-o- relaxed.....You can become just as relaxed as you are now....simply by doing this 10-second exercise.....placing your whole body in this stage of deep relaxation.....

You've been doing a really good job of relaxing....Your whole body is warm and comfortable ....and very relaxed....And now to help your body to return to its ordinary state....I'm going to count backwards from five to one....and as I count backwards from five....you'll feel your body starting to wake up....When I get to one....you'll feel wide awake....and very, very..... relaxed..... "five".... "four" .... "three"... you're beginning to wake up...."two"....eyes starting to open...and "one"."

Post training assessments. The next step in teaching progressive relaxation is to do a post training assessment. After the session of relaxation training has been completed, the instructor should ask about the

experience. The instructor should be encouraging about performance and praise the learner in order to build a positive expectancy set about the training and practice.

Bernstein and Borkovec (1973) suggest that people experiencing relaxation training may have several problems. Some of these potential problem areas are cramps, excessive laughter or talking, spasms or tics, intrusive thoughts, falling asleep, inability to relax specific muscle groups during relaxation and unfamiliar sensations. If people experience muscle cramps, possibly too much tension is being created in the particular muscle group and they should be instructed to decrease it. If spasms and tics occur in certain muscle groups, the instructor can mention that these occur commonly, usually when sleeping, and possibly the reason that people are now aware of them is because they are awake. Laughter or talking sometimes occurs in group-administered relaxation training. Possibly the best solution to this problem is to point out before starting the procedure that this can be a potential problem and that individuals should guard against it because it can be distracting and interfere with achieving deep relaxation. If it occurs during the training exercise, it is usually best to ignore it and discuss later with the group the effects of the distraction.

The most common problem is for the individual to fall asleep during the relaxation training. The learners should be informed that continually falling asleep can impede learning the skills associated with muscle relaxation. By watching individuals carefully throughout training, the instructor can confirm whether they are awake. Sometimes it is helpful for the instructor to give a suggestion at the beginning of the practice that the individuals will be practicing relaxation for a specific amount of time and that at the end of the practice they will feel refreshed and alert. Using

this procedure usually helps prevent people from falling asleep and it is extremely rare if they do fall asleep, not to be awakened within one minute of the suggested time (Hiebert, 1980).

If people have difficulty or are unable to relax a specific muscle group, the instructor and learner might work out an alternate exercise for that particular muscle group. If intrusive thoughts become too distracting, the instructor might suggest changing the focus of the thought to something less distracting or to more positive or pleasant thoughts. Another strategy for dealing with interfering or distracting thoughts is to help the people use task-oriented coping statements or thoughts which would facilitate focusing on the relaxation training.

The last potential problem is the occurrence of unfamiliar sensations, such as floating, warmth, and headiness. The instructor should point out that these sensations are common and that the learners should not fear them. The instructor need not focus on these problems unless they are reported or are noted by the instructor during a training session.

Homework. The last step in muscle relaxation is to assign homework. The instructor should inform the learners that relaxation training, like learning any skill, requires a great deal of practice. The more the procedure is practiced, the more proficient they become in gaining control over tension, anxiety and stress. The learners should be instructed to select a quiet place for practice, free from distracting noise. They should be encouraged to practice the muscle-relaxation exercises for about 15 to 20 minutes twice a day. The exercises should be done when there is no time pressure. They can be done in a reclining chair or on the floor. People can practice the relaxation exercises using a tape-recording of the relaxation instructions or from memory.

Individuals should be encouraged to complete the relaxation monitoring and homework log sheet after each practice (Figures 6 & 7). These forms are records that can be used during the follow-up session. The homework log sheet requires filling in the following data: the date, the number of the practice session, the location of the practice session, the number of muscle groups relaxed (17, 7 or 4) and an estimation of their level of tension before and after the practice. The relaxation monitoring sheet requires learners to know how to count their pulse and respiration rate and measure their finger temperature. When counting their pulse, individuals should make sure to use their fingers and not their thumb. (For physiological reasons, the thumb gives a false reading. This problem is eliminated if the fingers are used.) Most people find it easiest to feel their pulse on their neck, about 2 inches to the side of their windpipe, or on their wrist. To find the pulse on the wrist, extend the hand and notice the tendon running from the wrist to the base of the thumb. On the thumb side of that tendon the pulse will be found. Count the number of pulses for a one minute period, or count the number of pulses for a 30 second period and multiply it by two. The usual range is from 60 - 90 beats per minute. When people relax it is not uncommon for their pulse rate to decrease 10 -15 beats per minute between the beginning and the end of the relaxation period.

To count respiration rate, simply count their breaths over a one-minute period. A breath is counted on each exhale. People need to remember that it is quite easy to change their rate of breathing consciously, so they need to try to breathe naturally. The goal is to obtain a good indicator of relaxation not simply to breathe slowly. Usually people's respiration rates are in the range of 10 - 20 breaths per minute. It is not uncommon for people to experience a decrease of 5 - 10 breaths per minute between the



<u>DAY</u>	<u>INDICATOR</u>	<u>START</u>	<u>FINISH</u>	<u>DIFFERENCE</u>
1. _____	pulse rate (per minute)	_____	_____	_____
	breathing rate(per minute)	_____	_____	_____
	finger temperature(degrees)	_____	_____	_____
	_____	_____	_____	_____
2. _____	pulse rate (per minute)	_____	_____	_____
	breathing rate(per minute)	_____	_____	_____
	finger temperature(degrees)	_____	_____	_____
	_____	_____	_____	_____
3. _____	pulse rate (per minute)	_____	_____	_____
	breathing rate(per minute)	_____	_____	_____
	finger temperature(degrees)	_____	_____	_____
	_____	_____	_____	_____
4. _____	pulse rate (per minute)	_____	_____	_____
	breathing rate(per minute)	_____	_____	_____
	finger temperature(degrees)	_____	_____	_____
	_____	_____	_____	_____
5. _____	pulse rate (per minute)	_____	_____	_____
	breathing rate(per minute)	_____	_____	_____
	finger temperature(degrees)	_____	_____	_____
	_____	_____	_____	_____
6. _____	pulse rate (per minute)	_____	_____	_____
	breathing rate(per minute)	_____	_____	_____
	finger temperature(degrees)	_____	_____	_____
	_____	_____	_____	_____
7. _____	pulse rate (per minute)	_____	_____	_____
	breathing rate(per minute)	_____	_____	_____
	finger temperature(degrees)	_____	_____	_____
	_____	_____	_____	_____

Figure 6. Relaxation Monitoring Sheet



beginning and the end of a relaxation period.

Finger temperature can be measured using a household thermometer. The variety often attached to a calendar or obtained at a hardware store works quite well. The thermometer should be placed on a flat surface and the index finger allowed to rest gently on the bulb so that all the numbers on the thermometer are visible. Learners are cautioned not to press the thermometer bulb because this will give a false reading. Most people find their hand temperature lies within the 85 - 90°F (29 - 35°C) range. During relaxation it is common to find a 5 - 10°F (2 - 5°C) decrease in hand temperature.

Follow-up. After the training has been completed and the assigned homework done, a follow-up session should be scheduled. This session can be a double-check to see that the technique has been learned correctly and it can also be a brainstorming session to reinforce the benefits of making this practice an ongoing "use continuously" strategy.

### Meditation

Meditation is a cognitive exercise conducted in a quiet, calm environment. The term meditation refers to a family of mental exercises that generally involve calmly limiting thought and attention. Such exercises vary widely and can involve sitting still and counting breaths, attending to a repeated thought, or focusing on virtually any simple external or internal stimulus (Cormier & Cormier, 1979).

The word meditation is associated with the mystical traditions of the East. The techniques which were developed thousands of years ago in Eastern cultures are still in use today. Zen breath meditation was developed many centuries ago as a technique for attaining religious insight. Transcendental Meditation (TM) is another procedure used to turn attention inward toward

more subtle levels of thought.

Several studies have reported the effectiveness of regular meditation. J.C. Smith's (1975) review of research about meditation yielded three general findings. First, experienced meditators who volunteer for meditation research appear "healthier" than non-meditators. Second, people who are beginners and who practice meditation for 4 to 10 weeks show more "improvement" on a variety of tests than non-meditators measured for the same period of time. Third, 4 to 10 weeks of regular practice of meditation is associated with greater decrements in "psychotherapy" than those experienced by control non-meditators.

Benson (1974, 1976) has described meditation as a counter-balancing technique for alleviating the environmental effects of stress. Regular meditation can stimulate the area of the hypothalamus in the brain that can decrease systolic and diastolic blood pressure, heart rate, respiratory rate, and oxygen consumption. According to Benson (1974, 1976), four basic elements are needed to elicit the relaxation response: a quiet environment, a mental device, a passive attitude, and a comfortable position.

Teaching meditation can be accomplished following an eight step procedure:

1. Rationale and overview
2. Selection of a mental device
3. Instructions about body comfort
4. Instruction about breathing and use of the mental device
5. Instruction about a passive attitude
6. Meditation practice
7. Probes about the meditation experience

## 8. Homework and follow-up

Rationale and overview. The first step in teaching meditation is for the instructor to provide a rationale for meditation. The instructor should point out that there is nothing magical about meditation. It takes patience and practice; people have to work at developing the skill. It is important to recognize that just by meditating, all problems will not be solved. On the other hand, the instructor can point out that meditation is potentially a very powerful tool and that individuals might be able to expect some positive benefits from meditation the first month they practice it. Studies have shown that meditation can have a strong effect within the first two to four weeks (Cormier & Cormier, 1979). Some of the effects can be measured physiologically -- eg., brain wave states, slower breathing, slower heart rate. These all contribute to a state of relaxation and inner calm. Meditation may help people become more aware of their thoughts, feelings, hopes and fears. Thus, although meditation will not solve problems, it can give them the calmness, the awareness, and the self-control to permit work on those problems.

The instructor then provides an overview of the procedure and checks to make sure that the learners are interested in this technique. The instructor points out that the first task in meditation is to select a mental device. Individuals will then get into a comfortable and relaxed position and receive suggestions about breathing and using the mental device. The next step is to discuss the need for a passive attitude and then the learner is ready to meditate. They will meditate for about 10 to 20 minutes and then the experience will be discussed.

Selection of a mental device. The second part of the meditation procedure is for the instructor to help the learners select mental devices.

Most forms of meditation can be referred to as "concentrative" meditation in which people try to clear their minds of intruding thoughts by focusing for a time on a single stimulus. Often this stimulus takes the form of a mental device. A mental device or "mantra", is usually a single-syllable sound or word such as "in", "out", "one", although concentration on a mental riddle is also possible. The learner repeats the syllable or word silently or in a low tone while meditating. The rationale for the repetition of the syllable or word is to free the learner from focusing on logical or externally oriented thought. Instead, they focus on a constant stimulus -- the word, sound, syllable or phrase. Repetition of the word assists in breaking the stream of distracting thoughts (Benson, 1976). The mental device is used to help people focus on breathing. The instructor should give some examples of possible options for a mental device. The learners then select their own mental device to use while meditating.

Instructions about body comfort. The next step is for the instructor to provide some hints about body comfort. The first prerequisite for body comfort is a quiet environment in which to meditate. The instructor should create a quiet, calm environment that is as free from distractions as possible. Benson (1976) claims that some background noise may prevent the relaxation response. A quiet environment is less distracting and may facilitate elimination of intrusive thoughts. The instructor tells the learners they will learn one of the several ways there are to meditate. The instructor demonstrates several comfortable positions and allows the learners to find the one they prefer. Some possible positions include: sitting in a comfortable chair with the head and arms supported, or sitting on the floor, assuming a semi lotus position. Getting into a comfortable position minimizes muscular effort. As in muscle relaxation, people should wear

comfortable clothing. After getting into a comfortable position, they are instructed to close their eyes and to relax all their muscles deeply. After relaxing they are given instructions about breathing and using the mental device.

Breathing instructions. The learners are instructed to breathe through their nose and to focus on becoming aware of their breathing. It is believed that the focused breathing component of meditation helps people learn to relax and to manage tension. At first, it may be difficult for some people to be natural when focusing on breathing. The instructor should encourage them to breathe easily and naturally with a suggestion to "allow air to come to them" on each inhalation. For each exhalation, the learners are instructed to exhale slowly, letting all the air out of the lungs and while focusing on breathing to use their mental device by saying it silently. People are instructed to repeat the mental device silently for each inhalation and each exhalation and are encouraged to keep their attention on breathing and the mental device.

Passive attitude. During the next step in the procedure the learners are instructed about a passive attitude. The instructor explains the need to try to maintain a passive attitude and allow relaxation to occur at its own pace. They are also instructed that if their attention wanders and distracting thoughts or images occur, not to dwell on them but rather return to repeating the mental device or word. The individuals should allow the distracting thoughts to pass through their minds and just be passive. If distracting thoughts occur for several minutes, they are instructed not to be evaluative and to return to repeating the mental device. The purpose of the relaxation response is to promote rest and relaxation, and this requires a completely passive attitude. When distracting thoughts enter their minds,

they should be disregarded. Learners should not scrutinize their performances or try to force the response as this may actually prevent the response from occurring (Benson, 1974).

Meditation practice. People are instructed to meditate for about 10 to 20 minutes. They are told to open their eyes to check the time if desired. A clock or watch that can be seen easily should be provided. After meditating, learners are instructed to keep their eyes closed for a few minutes before opening them or just to sit quietly for several minutes. This is followed by some questions from the instructor about the meditative experience.

Homework and follow-up. The final step in the procedure is homework and follow-up. As homework, the instructor asks the learners to practice meditating once or twice a day at home or at work. Each practice session should last 10-15 minutes and should not occur within two hours after a meal because the digestive processes appear to interfere with relaxation. Practice should occur in a quiet environment, free from distractions or interruptions. It should be noted that for some people, practice several hours before bed can interfere with falling to sleep. People should be instructed to keep a daily log of each time the relaxation response is used. The same log sheet that was provided for progressive relaxation can be used for meditation (Figure 9).

After practicing meditation for about a month, a follow-up session should be scheduled. This session can use the log data to check on the frequency of use, the reactions to the homework and suggestions concerning additional uses for meditation.

Another form of meditating is "informal meditation". People are instructed to observe some selected problem or stress-related environmental



event in a detached, non-evaluative fashion. This procedure involves identifying current problems, difficulties or concerns which cause tension or anxiety. The learners are instructed to select a situation and make it as specific as possible. In order to do this they should specify who is present, where they are, what kinds of things are they doing, saying and thinking. Individuals are then asked to close their eyes and imagine themselves in that situation and allow themselves to experience the tension they normally feel. Once they have observed these thoughts and actions, they are instructed to say "Stop" to themselves, while at the same time they clench their fist and jaw. They are then instructed to relax their fingers and jaw and imagine they are beginning to do their informal meditation, concentrating on their breathing without repeating their mental device. Learners are instructed to imagine themselves becoming more and more relaxed with each breath. They are to imagine the feeling they have when meditating and to feel calm and in control. At the count of ten they are instructed to open their eyes, -- they will feel calm, relaxed and wide awake (Cormier & Cormier, 1979). It is suggested that formal and informal meditation be practiced on a regular basis.

### Self-Hypnosis

It is important to understand that hypnosis has never been satisfactorily explained. There is no scientific explanation as to how or why hypnosis works, but there is evidence to support the fact that it does (Kanfer & Goldstein, 1975). Hypnosis has characteristically been associated with the mystical, the strange, the unusual, and the dramatic. Unfortunately, the image of hypnosis as mysterious and bordering on the occult has caused people to avoid this legitimate counselling tool (Kanfer & Goldstein, 1975). A better understanding of this strategy might clarify some

of the misconceptions about self-hypnosis.

The most common mistaken idea about hypnosis is that people in a hypnotized state are unconscious and not aware of what is happening around them or what they are doing. This never happens, even in the very deepest stages, there is always awareness (Le Cron, 1971).

A second common misconception is that people in a hypnotic state are in the power of the hypnotist and they will do anything they are told to. This again is a gross error; willpower is never lost. Actually, people with strong wills are typically better hypnosis subjects. People will not do anything while hypnotized which is contrary to their moral code. It is important to emphasize this point; individuals are in control of their own hypnotic experience -- not the hypnotist. People only enter into a hypnotic state if they want to. They will only go as deeply into hypnosis as they want to go and they can come out of hypnosis any time they want (Gorman, 1979).

A third fallacy is that people in a hypnotic state may not be easily awakened and may remain in that state for a long time. The hypnotic state can be terminated at will. A fear of not awakening is not warranted as there has never been a case in which someone did not return from a hypnotic state (Caprio & Berger, 1968).

A fourth misconception is that hypnosis can effect a significant change in just one or two sessions. Hypnosis is a learned skill which improves with practice. People should not expect too much from the hypnotic experience, often people simply experience a deep state of relaxation (Benson, 1976).

Once these misconceptions have been clarified, people are ready to learn the relaxation technique of self-hypnosis. Teaching individuals the technique of self-hypnosis is usually best accomplished by having them become

hypnotized by someone who is a professional - a physician, psychologist or dentist. They are then given a post-hypnotic suggestion that they will enter a hypnotic state any time they use a brief formula. The hypnotist is only necessary for a short time, perhaps two or three sessions, then the responsibility for the procedure rests with the learners. Usually there are four steps to teach self-hypnosis:

1. rationale
2. overview of procedure
3. self-hypnosis instructions
4. homework and follow-up

Rationale. It is possible for people to learn self-hypnosis with the aide of an instructor who can teach them to direct themselves in the technique of self-hypnosis. The instructor should start by emphasizing that self-hypnosis is a skill and as a result will need to practice in order to increase responsiveness to suggestion. The instructor should point out that the real secret of getting into a hypnotic state is fixation of attention, with relaxation and "letting go". Learners are instructed to avoid "trying too hard" at the task. Hypnosis is an easy relaxed task, not one requiring hard concentration or hard work. If people adopt the attitude that they must work hard, they will find thoughts about working will become the dominant thought, instead of the suggestions they wish to use. Individuals are cautioned that a second common problem is to analyze what is happening, as the process may seem very unusual and interesting. When individuals attempt this analysis, the suggestions are interrupted, and their effects cease. Learners are encouraged to think of their mind as a river that flows along at a steady pace. They should let their thoughts progress at the same pace as the river, over and over again -- easy, not forced, just flowing along at a

nice easy pace. The suggestions will become the dominant thing of interest, and will have their greatest effect. The instructor emphasizes that hypnosis is an easy, relaxed technique. If people become distracted they should then go back to their thoughts, letting them flow through, over and over, so they become the only thing of importance.

Overview of procedure. The instructor will overview the procedure to be used. Learners will be instructed to just listen and not try to participate during this explanation. The instructor explains that they will be asked to take a comfortable position, either sitting or lying down and to check their clothing, making sure that it is not so tight as it would cause discomfort. They will be asked to focus their eyes on any object, preferably something bright. One of the best objects is a lighted candle because the flickering flame seems to help focus attention. The candle will be placed in a position where it can be viewed without straining. To help with relaxation, learners will be instructed to take two or three deep breaths and to let themselves relax as much as possible. They should continue to keep their gaze fixed on the selected object for about three or four minutes. They will then be instructed to close their eyes and relax as much as possible, by thinking about the various muscle groups as they feel them relax. Individuals will now be in a hypnotized state. Next they will be directed to deepen their level of hypnosis using visual imagery of an escalator going down. This entire process only takes a few minutes. They will then be instructed to enjoy this state for ten minutes. People in this state have all the physiological effects of the "relaxation response" (Benson, 1976). Individuals will then be awakened by the instructor counting to three. As the instructor gets closer to three they will become wide awake. When they awake, they will feel completely relaxed, very refreshed and clear headed.

It is pointed out that using the word "awaken" for emergence from hypnosis is not appropriate because hypnosis is not sleep, but most instructors will use it as a matter of convenience.

Before teaching the procedure, the instructor should answer any questions that arise and then check to make sure there is still an interest in learning the technique. The instructor should point out that many people will find themselves reaching a good depth the first time they try, but others may find they need practice to increase the depth.

Self-hypnosis instructions. The following is a sample of the recommended wording for a self-hypnosis script: (Le Cron, 1977, p. 69).

"Make yourself comfortable, being sure your clothing is loose. It makes no difference whether you sit up or lie down, as long as you are in a comfortable position. Fix your gaze on the candle. While you watch it, let your eyes go out of focus if you can. Now take a deep breath. That helps you to relax. The more you relax the easier it is for you to slip into hypnosis. Soon you will find you are more relaxed than probably you ever have been. Just relax and let go. Your eyes are relaxing more and more, which is why they feel so heavy that they want to close. The lids are relaxing more and more. Soon they will close. Let them close whenever you want to. They are so heavy. Getting still heavier. It's even hard to keep them open.

Take another deep breath now. Let your eyes close if they are not already closed....

The next part of the self-hypnosis script is to deepen the relaxation by providing suggestions for total muscle relaxation. The instructor should point out that although the learners may be completely relaxed they will still be attentive to the instructor's voice. To deepen the state of relaxation the script could continue: (Le Cron, 1977, p. 70).

Notice the feeling of comfort and well being which has come over you. Everyone enjoys being in hypnosis. It is so comfortable and pleasant. Your whole body is relaxed and tensions seem to drain away.

Now you can go still deeper into this pleasant state. Let go and go deeper with each breath. Deeper and deeper. The

deeper you go the more comfortable and pleasant it seems. Now imagine that you are standing at the top of an escalator such as are in some stores. See the steps moving down in front of you and see the railings. If you do not like to ride escalators, imagine a staircase instead. I will count backwards from ten to zero. If you are using the escalator, step on it as I begin to count, standing with your hand on the rail. Or if you use the staircase, start walking slowly down as I count. You are all alone. It is a private escalator. When we reach zero, imagine you have reached the bottom and step off.

Ten -- and you step on. Each count will take you deeper and deeper. Nine(slowly), eight, seven, six. You are going deeper. Five, four, three, still deeper. Two, one, and zero. now, step off the escalator or staircase. You can continue to go deeper with each breath you take....

People who want to learn self-hypnosis need a formula to follow, certain things to do which will cause them to go into hypnosis. First they need to select some key word or phrase which will be the signal for them to slip into hypnosis when they think or say the word. The word will be effective only when they intentionally say it and wish to be in hypnosis. It will have no effect except when they use it for that purpose. A good phrase is "relax now", but any word or phrase may be selected.

To hypnotize themselves, individuals take any comfortable position. They need not speak aloud, but merely think the suggestions they will give themselves. They fix their gaze on something, and stare at it intently for a moment or two, no more than three or four, letting their eyes go out of focus as they do. They suggest to themselves that their eyelids are becoming heavier and heavier. Then they let them close and say to themselves, "Now I'm going into hypnosis." Next they take two or three deep breaths and repeat their key word or phrase three times, very slowly. As people repeat it, they will be drifting into hypnosis. To deepen hypnosis people can use the imaginary escalator or staircase, while they count backwards from ten to zero. When people are ready to awaken from self-hypnosis all they need to do is give themselves the suggestion, "Now I'm going to wake up". Then count

slowly to three. They will then be wide awake, feeling relaxed, refreshed and clear-headed.

If at any time when people are in hypnosis there should be any reason for them to awaken at once, they will awaken instantly. If the phone rings, people will hear it. If there is a real danger such as a fire, they will awaken instantly and be completely alert.

Homework and follow-up. The final phase of teaching self-hypnosis is homework and follow-up. For homework learners are instructed to practice daily and to keep a record of their practice for the follow up session. They are also instructed about three tests that they can use to check their level of hypnosis. Individuals are told not to try these until after their fourth practice session.

One good test is arm levitation. This test suggests that one arm will begin to lose all sensation of weight, will become lighter and lighter until their hand begins to float up towards their face with no voluntary effort. It is to lift of its own accord. This suggestion is repeated and very soon they will notice the difference in weight in one of their arms. It will soon begin to move, perhaps at first it will be the fingers, or perhaps the whole hand, and then the whole arm. The motion will be quite slow and if the movement is involuntary there will be slight jerky movements of the arm as it lifts. Learners should suggest that the motion will continue until their fingers touch their face. When contact has been made they are to let their arm go down again into any comfortable position.

Another test is to suggest that one arm is becoming very heavy, that it is becoming heavier and heavier and will soon be so heavy that it would be impossible to lift such a heavy weight. People should keep repeating this idea until they are aware of great heaviness and they should then suggest

that they cannot possibly lift it, repeating this several times. They should then suggest that the harder they try, the heavier the arm will be and that it cannot be lifted. Learners should then make an effort to lift their arm, but they will find that the lifting muscles seem to be paralyzed and will not function. After this attempt, they should remove the suggestion of heaviness, saying that the weight of the arm will return to normal and that it can be lifted readily.

Still another good test is eye catalepsy -- inability to open the eyelids. Counting often helps in making such tests. Learners suggest that their eyelids are becoming very heavy and that it will be impossible to open them. When they count to three, their eyes will be locked together tightly and they will not be able to open them. Individuals then try to open their eyes and find they cannot. Again, after this trial, the suggestion should be removed saying that the eyelids will return to normal and they can be easily opened.

It is important to recognize that sometimes such tests fail. This could indicate that learners are not in hypnosis, or possibly skepticism may counteract their suggestions even though they may be hypnotized.

At a follow-up session, progress can be checked by reviewing their success with the homework assignment and with the self-check tests. Any concerns or problems can be discussed with the instructor. Also during the follow-up people should be cautioned that as they progress using hypnosis, they may be tempted to try to hypnotize some of their friends or family. Individuals should be told that this is not advisable. In all probability there would be no bad reaction but they should be aware that hypnosis is not a toy.



### Benson's Relaxation Response

Herbert Benson developed a technique to counter-balance the physiological effect of stress. Benson called his meditative technique the relaxation response because he found that regular practice of the response could produce the physiological state of deep relaxation.

Benson (1974) began his research by investigating the effects of Transcendental Meditation on controlling blood pressure. In studying T.M. meditators, Benson found that they were in a state of deep relaxation while repeating their mantra. Their oxygen consumption was markedly lowered, heart rates were slowed, galvanic skin resistance was raised, and blood pressure was lowered.

These results led Benson to compare various techniques as to their ability to elicit the state of deep relaxation. He found that transcendental meditation, Zen and yoga, autogenic training, progressive relaxation and hypnosis with suggestions for deep relaxation all produced a similar relaxation. From the age - old technique of meditation, Benson extracted the four basic components necessary to bring forth the relaxation response(Benson, 1976). He observed that all the techniques had the following four basic elements:

1. A quiet environment
2. A mental device such as a word or sound
3. A passive attitude to help individuals rest and relax
4. A comfortable position to keep muscular effort to a minimum.

Based on these four elements Benson devised his own modified mantra-repeating meditation called the relaxation response. The technique employs the following components:

Quiet environment. The first component is a quiet environment. Ideally people should choose a quiet, calm environment with as few distractions as possible. The quiet environment contributes to the effectiveness of the repeated word or phrase by making it easier to eliminate distracting thoughts.

Mental device. The second component is a mental device. To shift the mind from logical, externally oriented thoughts, there should be a constant stimulus: a sound, word or phrase repeated silently or aloud, or fixed gazing at an object. Benson recommends repeating the word "one" over and over to oneself in a slow, deliberate manner. Because one of the major difficulties in acquiring the relaxation response is "mind wandering" the repetition of the word or phrase is a way to help break the train of distracting thoughts. The eyes are usually kept closed if using a repeated sound or word. The eyes are open if an object is chosen for the mental device. Attention to the normal rhythm of breathing is also useful and enhances the repetition of the sound or word.

Passive attitude. The third component necessary is a passive attitude. When distracting thoughts occur, they are to be disregarded and attention redirected to the repetition or gazing. People should not worry about how well they are performing the technique because this may well prevent the relaxation response from occurring. They need to adopt a "let it happen" attitude. The passive attitude is perhaps the most important element in eliciting the "relaxation response". Individuals should be aware that distracting thoughts will occur but they are not to worry about them. When these thoughts present themselves and the individuals become aware of them, they should simply return to the repetition of the mental device. These or other thoughts do not mean that people are performing the technique

incorrectly, they are to be expected.

Comfortable position. The fourth component is a comfortable position. A comfortable position is important so that there is no undue muscular tension. Some methods call for a sitting position and a few use the cross-legged "lotus" position of the Yogi. People should be cautioned against lying down because there is a tendency to fall asleep. The key is to find a comfortable, relaxed position.

The following set of instructions, used to elicit the relaxation response, was developed by Benson's (1976) group at Harvard University. Benson points out that there is no educational requirement or aptitude necessary to experience the relaxation response because it is an innate response. Individuals can elicit the relaxation response by following Benson's (1976) instructions:

1. Sit quietly in a comfortable position.
2. Eyes closed.
3. Deeply relax all muscles, beginning at the feet and progressing up to the face. Keep them relaxed.
4. Breathe through the nose. Become aware of the breathing. While breathing out say the word "One," silently. For example, breathe In...Out, "One"; In...Out, "One", etc. Breathe easily and naturally.
5. Continue for 10 to 20 minutes. People may open their eyes to check the time, but they should not use an alarm. When finished, individuals should sit quietly for several minutes, at first with their eyes closed and later with their eyes open. Individuals are cautioned not to stand up for a few minutes.
6. Do not worry about the level of relaxation. Maintain a passive attitude and permit relaxation to occur at its own pace. When distracting thoughts occur, try to ignore them by not dwelling on them and return to repeating "One". With practice, the "response" should come with little effort.
7. Practice the technique twice daily, but not within two hours after any meal, since the digestive processes seem to interfere with the elicitation of the relaxation response.

The subjective feelings that accompany the elicitation of the "relaxation response" vary among individuals. The majority of people feel a sense of calm and feel very relaxed.

### Suggested Readings

- Barber, T. X. Hypnosis: A scientific approach. New York: Nostrand, 1969.
- Benson, H. The relaxation response. New York: Avon, 1976
- Bernstein, D. A., & Borkovec, T. D. Progressive relaxation training: a manual for the helping professions. Champaign, Ill: Research Press, 1973.
- Caprio, F., & Berger, J. Helping yourself with self-hypnosis New York: Warner Books, 1963.
- Hiebert, B. Self relaxation: learn it, use it. Coquitlam, B.C.: Perman Consultants, 1980.
- Le Cron, L. M. Self-hypnosis: the technique and its use in daily living. New York: Signet, 1964.
- Moss, C. S. Hypnosis in perspective. New York: MacMillan, 1965.
- Smith, J. C. Meditation as psychotherapy: A Review of the Literature. Psychological Bulletin. 1975, 82, 558-564.
- Stroebe, C. F. Practitioner's manual to accompany quieting response training. New York: Bio-monitoring Applications, 1978.

### Summary

The common focus in all stress control strategies is to develop some procedures to alter peoples reactions to perceived demands. The goal of stress management procedures is to change the reaction to a given situation so that it is less stressful. Stress management strategies may be aimed at any of the specific components (physiological, behavioral, or cognitive) of the stress response because when change is experienced in one of these

dimensions, concomitant change is usually observed in the others. Lasting alteration of habitual stress responses is often ensured by integrating a combination of procedures.

## CHAPTER 11

### CONCLUSION

The value of learning stress control procedures cannot be overstated. Research suggests that people who efficiently manage their stress are typically: more efficient, better problem solvers, (Dennison and McWilliams, 1975), and likely to suffer fewer health problems (Lamott 1975). Unfortunately, there is evidence to suggest that growing numbers of people are coping less effectively with their stress because they have not learned appropriate stress management strategies (Meichenbaum & Turk, 1976). It is time to implement a program of instruction to teach people: (Hiebert 1982)

1. Stress is normal.
2. Stress comes from inside people, not the environment.
3. Stress control involves learning specific skills.

## REFERENCES

- Albrecht, K. Stress and the manager: making it work for you. Englewood Cliffs: Prentice-Hall, 1979.
- Anderson, R. Stress Power. New York: Human Science Press, 1978.
- Antonovsky, A. Health, stress and coping. San Francisco: Jossey Bass, 1979.
- Asterita, M. F., Smolinicky, J., & Iatridis, I.P. Effects of caffeinated vs decaffeinated coffee on the involuntary control of muscle tension levels. In Proceedings of the Biofeedback Society of America Twelfth Annual Meeting. Wheat Ridge: Biofeedback Society of America, 1981.
- Bailey, C. Fit or fat? Boston: Houghton Mifflin, 1978.
- Bandura, A. Psychological modelling: conflicting theories. Chicago: Addine, 1971.
- Barber, T. X. Hypnosis: a scientific approach. New York: Nostrand, 1969.
- Benson, H. Your innate asset for combating stress. Harvard Business Review, 1974, 52, 49-60.
- Benson, H. The mind/body effect. New York: Simon & Schuster, 1979.
- Benson, H. The relaxation response. New York: Avon, 1976.
- Benson, H. Stress! Seeking Cures for Modern Anxiety. Time, 1983, 121, 54-65.
- Bernstein, D. A., Borkovek, T. D. Progressive relaxation training: a manual for the helping professions. Champaign, Ill.,: Research Press, 1973.
- Bliss, E. Getting things done / the abc's of time management. New York: Scribner, 1976.
- Bloom, B. S., & Broder, L. J. Problem-solving processes of college students. Chicago: University of Chicago Press, 1958.
- Bolles, N. What color is your parachute? Berkley: Ten Speed Press, 1980.
- Borkovek, T., Grayston, J., & Cooper, K. Treatment of general tension: Subjective and physiological effects of progressive relaxation. Journal of Consulting and Clinical Psychology, 1978, 46, 518-528.

- Briggs, D. Your child's self-esteem. New York: Doubleday, 1970.
- Bryant, J. You can get a better job. Oakville, Ontario: T.M.C. Publishing, 1974.
- Butler, P. Talking to yourself. San Francisco: Harper & Row, 1981.
- Cannon, W. B. Bodily changes in pain, hunger, fear and rage. Boston: C.T. Branford, 1953.
- Caprio, F., & Berger, J. Helping yourself with self-hypnosis. New York: Prentice-Hall, 1968.
- Carney, C., Wells, F., Streufert, D. Career planning: Skills To Build Your Future. New York: Litton, 1981.
- Cooper, K. The aerobic way. New York: Lippincott, 1977.
- Cormier, W. H., & Cormier, L. S. Interviewing strategies for helpers. Monterey: Brooks/Cole; 1979.
- Denniston, D., & McWilliams, P. The TM book. New York: Warner, 1975.
- Dickhut, H. The professional resume and job search guide. Englewood Cliffs: Prentice-Hal, 1981.
- Dudley, D., & Welke, E. How to survive being alive. New York: Doubleday & Co., 1979.
- D'Zurilla, T. J., & Goldfried, M. R. Problem Solving and Behavior Modification. Journal of Abnormal Psychology, 1971, 78, 107-126.
- Elek, S. R. On "the hurry-up disease". Executive Health, 1975, 11, 1-6.
- Ellis, A. Humanistic psychotherapy. New York: McGraw-Hill, 1974.
- Ellis, A. Growth through reason. California: Wilshire Book Company, 1975.
- Evans, J. F., Cox, J. P., & Jamieson, J. L. Aerobic capacity and recovery from psychological stress. Paper presented to the thirty-eighth annual meeting of the Canadian Psychological Association, June, 1977, Vancouver.
- Everly, G., & Rosenfeld, R. The nature and treatment of the stress response. New York: Plenum Press, 1981.



- Filley, A. Interpersonal conflict resolution. California: Scott-Foresman, 1975.
- Ford, M. R., Stroebel, C. F., Strong, P., & Szarek, B. Quieting Response Training: Treatment of psychophysiological disorders in psychiatric in-patients. In Proceedings of the Biofeedback Society of America twelfth annual meeting. Wheat Ridge: Biofeedback Society of America, 1981.
- Friedman, M. & Rosenman, R.H. Type A behavior and your heart. New York: Knopf, 1974.
- Ginott, H. Between parent and child. New York: MacMillan, 1965.
- Goldfried, M. Effectiveness of relaxation as an active coping skill. Journal of Abnormal Psychology, 1974, 83, 348-355.
- Goldfried, M., Decenteceo, E., & Weinberg, L. Systematic Rational Restructuring as a Self Control Technique. Behavior Therapy, 1974, 5, 247-254.
- Gordon, T. P.E.T.: parent effectiveness training. New York: New America Library, 1970.
- Gordon, T. T.E.T.: teacher effectiveness training. New York: David McKay, 1974.
- Gordon, T. P.E.T. in action. New York: Bantam, 1976.
- Gorman, B. Attitude therapy for stress disorders. Alberta: Detselig, 1979.
- Grenby, M. Mike Grenby's money book. Vancouver: International Self-Counsel Press, 1979.
- Handy, C. Understanding organizations. New York: Penguin, 1976.
- Hiebert, B. Self-relaxation: learn it, use it. Coquitlam: Per Man Consultants, 1980.
- Hiebert, B. Strategies for managing stress. Unpublished paper for S.F.U. Burnaby, 1981.
- Hiebert, B., Fox, E. Reactive effects of self-monitoring anxiety. Journal of Counselling Psychology. 1981, 28, 187-193.
- Hiebert, B., Sorting Out Stress Control. Paper presented to the B.C. chapter of the North American Society for Corporate Planning, Vancouver, 1982.

- Hiebert, B. A Framework For Planning Stress Control Interventions.  
Canadian Counsellor, 1983, 17, 51-60.
- Holland, D. Q.R. for young people. Wethersfield, Conn:  
The Q.R. Institue, 1980.
- Hope, J. Counselling workshop for women with multiple roles.  
(Special Project for Education 881) Simon Fraser  
University, 1982.
- Horan, J. J. Counselling for effective decision-making:  
a cognitive - behavioral perspective. North Scituat,  
Mass: Duxbury, 1979.
- Hurt, T., Scott, M., & McCroskey, J. Communication in the  
classroom. Massachusetts: Addison-Wesley, 1978.
- Jackson, T. Guerilla tactics in the job market. New York:  
Bantam, 1978.
- Jacobson, E. Progressive relaxation (2nd Ed.). Chicago:  
University Press, 1938.
- Johnson, D. Reaching out: interpersonal effectiveness  
and self-actualization. Englewood Cliffs: Prentice-Hall, 1972.
- Kanfer, F. H., & Goldstein, A. P. Helping people change  
New York: Pergamon, 1975.
- Katch, F., & McArdle, W., Nutrition, weight control and exercise.  
Boston: Houghton/Mifflin, 1977.
- Krumboltz, J. D., & Thoresen, C.E. (Eds.) Counselling methods  
New York: Holt, Rinehart & Winston, 1976.
- Lakein, A. How to get control of your time and your life.  
New York: Signet, 1973.
- Lalonde, G. 4 minutes to the job you want. New York:  
McGraw-Hill, 1978.
- Lamott, K. Escape from stress. New York: Putnam, 1975.
- Lazarus, R. S. Cognitive and coping processes in emotion.  
In B. Weiner (Ed.), Cognitive views of human motivation.  
New York: Academic, 1974.
- Leatz, C. A. Unwinding: how to turn stress into positive energy.  
Englewood Cliffs: Prentice-Hall, 1981.
- Le Cron, L. M. Self-hypnosis: the technique and its use in  
daily living. New York: Signet, 1964.

- Le Cron, L. M. The complete guide to hypnosis.  
New York: Barnes & Noble, 1971.
- Likert, R., & Likert, J. New ways of managing conflict.  
New York: McGraw-Hill, 1976.
- Lin, N. The study of human communication. New York:  
Bobb-Merril, 1973.
- Luthe, W. Introduction to the methods of autogenic therapy.  
Denver: Biofeedback Society of America, 1977.
- McArdle, W., Katch, F., & Katch, V. Exercise physiology:  
exercise, nutrition and human performance.  
Philadelphia: Lea & Febiger, 1981.
- Martin, J., Hiebert, B., Instructional counseling Vancouver:  
Centre for Studies in Curriculum and Education, University  
of British Columbia, 1982.
- Mason, L. Guide to stress reduction. Culver City:  
Peace Press, 1980.
- Meichenbaum, D. Cognitive modifications of test anxious  
college students. Journal of Consulting and Clinical  
Psychology, 1972, 39, 370-380.
- Meichenbaum, D., & Cameron, R. Stress inoculation: a skill  
approach for anxiety management. Unpublished  
manuscript, University of Waterloo, 1973.
- Meichenbaum, D. Cognitive behavior modification.  
Morristown: General Learning Press. 1974.
- Meichenbaum, D. A self-instruction approach to Stress  
Management: A proposal for stress inoculation training.  
In C.D. Spielbergers & I.G. Sarason (Eds). Stress  
and Anxiety. New York: Wiley, 1975.
- Meichenbaum, D., & Turk, D. The Cognitive - behavioral  
management of anxiety, anger and pain. In P.O.  
Davidson (Ed.), The Behavioral Management of  
Anxiety, Depression and Pain. New York:  
Brunnel Mazel, 1976.
- Meichenbaum, D. Cognitive behavior modification:  
an integrative approach. New York: Plenum Press, 1977.
- Monat, A., & Lazarus, R. Stress and coping: an anthology.  
New York: Columbia University Press, 1977.

- Morehouse, L., & Gross, L. Total fitness. New York: Simon & Schuster, 1981.
- Moss, C. S. Hypnosis in perspective. New York: MacMillan, 1965.
- Participaction Fitness factors. Vancouver: Participaction, 1980.
- Rimm, D. C., & Masters, J.C. Behavior therapy: techniques and empirical findings. New York: Academic Press, 1974.
- Rudestam, D. Methods of self-change. Monterey: Brooks/Cole, 1980.
- Satir, V. People making. Palo Alto California: Science and Behavior Books, 1972.
- Sehnert, K. Stress/unstress. Minneapolis: Augsburg, 1981.
- Selye, H. Stress without distress. Philadelphia: Lippincott, 1974.
- Selye, H. The stress of life. New York: McGraw-Hill, 1976
- Shaffer, M. Life after stress. New York: Plenum Press, 1982.
- Smith, J. C. Meditation as psychotherapy: A review of the literature. Psychological Bulletin, 1975, 82, 558-564.
- Smith, M. J. When I say no, I feel guilty. New York: Bantam Books, 1975.
- Spivack, G., Platt, J. J., & Shure, M. B. The problem-solving approach to adjustment. San Francisco: Jossey-Bass, 1976.
- Stroebel, C. F. Practitioner's manual to accompany quieting response training. New York: Bio-Monitoring Applications, 1978.
- Suinn, R. M. Anxiety management training for general anxiety In R.M. Suinn & R. Weigal (Eds.), Innovative Psychological Therapies. New York: Harper & Row, 1975.
- Thoresen, C., & Mahoney, M. Behavioral self-control. New York: Holt, Rinehart & Winston, 1974.
- Walker, C. E. Learn to relax: 13 ways to reduce tension. Englewood Cliffs: Prentice-Hall, 1975.

- White, J. & Fadiman, J. Relax: how you can feel better, reduce stress and overcome tension. San Francisco: Confucian Press, 1976.
- Wolpe, J. Psychotherapy by reciprocal inhibition. California: Stanford University Press, 1958.
- Wolpe, J. The practice of behavior therapy. New York: Pergamon, 1969.
- Woolfolk, R.L., & Richardson, R.C. Stress, sanity & survival. New York: Signet, 1979.