

ASSESSING PAIN MANAGEMENT STRATEGIES  
WITH THE TFA MODEL

by

Geraldine Elizabeth Vingelis

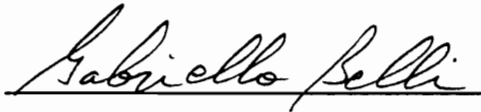
Dissertation submitted to the Faculty of the  
Virginia Polytechnic Institute and State University  
in partial fulfillment of the  
requirements for the degree of

DOCTOR OF EDUCATION

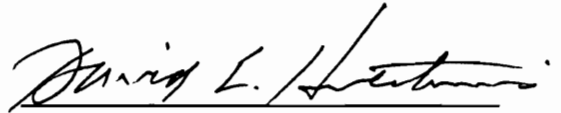
in

Counselor Education and Supervision

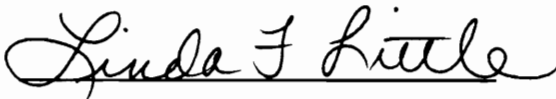
APPROVED:



Dr. Gabriella Belli  
Co-Chair



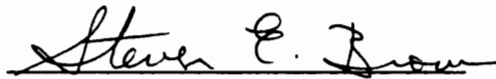
Dr. David Hutchins  
Co-Chair



Dr. Linda Little



Dr. Walter Moretz



Dr. Steven Brown

May 1993

Blacksburg, Virginia

TABLE OF CONTENTS

TABLE OF CONTENTS . . . . .	i
LIST OF FIGURES . . . . .	.iii
LIST OF TABLES. . . . .	.iii
LIST OF APPENDICES. . . . .	.iii
DEDICATION . . . . .	v
ACKNOWLEDGEMENTS . . . . .	vi
ABSTRACT . . . . .	xii
CHAPTER ONE . . . . .	1
INTRODUCTION . . . . .	1
PROBLEM STATEMENT . . . . .	4
PURPOSE . . . . .	5
RESEARCH QUESTIONS . . . . .	6
ASSUMPTIONS . . . . .	7
LIMITATIONS . . . . .	8
DELIMITATIONS . . . . .	8
DEFINITIONS . . . . .	9
ORGANIZATION/SUMMARY . . . . .	13
OVERVIEW OF THE STUDY . . . . .	14
NEED FOR THE STUDY . . . . .	16
CHAPTER TWO . . . . .	20
REVIEW OF THE LITERATURE . . . . .	20
PAIN . . . . .	20
Physiological Aspects of Pain, Acute and Chronic . . . . .	20
The Nature of Chronic Pain . . . . .	26
The Nature of Back Pain . . . . .	28
TREATMENT CONCEPTS . . . . .	31
Medical and Physical Treatment . . . . .	31
Integration of Medical and Psychological Treat- ment . . . . .	33
Counseling and Psychotherapy . . . . .	34
TFA Systems (tm) . . . . .	36
Assessment of Treatment Effectiveness . . . . .	44
The Effect of an Individual's Outlook on Treatment Success . . . . .	46
CHAPTER THREE . . . . .	51
METHOD . . . . .	51
Population/Sample . . . . .	51
PROCEDURE . . . . .	51
Data Collection . . . . .	51
Instrumentation . . . . .	53
TFA Clinical Interview . . . . .	53

Hutchins Behavior Inventory (HBI) . . . . .	56
Demographic Questionnaire . . . . .	57
Treatment Method Rating Scale . . . . .	57
Seligman Optimism/Pessimism Scale . . . . .	57
ANALYSIS OF DATA . . . . .	58
TFA Classification (Triad) . . . . .	58
TFA Clinical Interview . . . . .	58
Hutchins Behavior Inventory (HBI) . . . . .	61
Other Instruments (Treatment Method Rating Scale, Demographic Questionnaire, Seligman Optimism/Pess- imism Scale) . . . . .	62
CHAPTER FOUR . . . . .	66
RESULTS . . . . .	66
Description of the Sample . . . . .	66
Coping Behavior Treatment Methods . . . . .	68
Thinking . . . . .	68
Feeling . . . . .	70
Acting . . . . .	70
Personal Outlook and Pain Management . . . . .	70
Relationship Between TFA Patterns and Treatment Methods . . . . .	72
Relationship Between Demographic Variables and Treatment Methods . . . . .	74
Gender . . . . .	74
Age . . . . .	74
Income . . . . .	74
Level of Education . . . . .	75
Marital Status . . . . .	75
CHAPTER FIVE . . . . .	76
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS . . . . .	76
SUMMARY . . . . .	76
CONCLUSIONS . . . . .	78
DISCUSSION . . . . .	78
RECOMMENDATIONS . . . . .	95
Research . . . . .	95
Proposals for clinical trial . . . . .	96
REFERENCES . . . . .	129
VITA . . . . .	152

LIST OF FIGURES

Figure 1.	Components of the Central Nervous System involved in pain transmission and modulation. . . . .	24
Figure 2.	Sample - Hutchins Behavior Inventory . .	40
Figure 2.1	HBI Triangle, Triad and Profile of Patient in Pain. . . . .	41
Figure 2.2	HBI Triangle, Triad and Profile of Counselor dealing with Client with Chronic Pain . . . . .	42
Figure 3.	TFA Triangle Demonstrating Behavior Pattern . . . . .	

LIST OF TABLES

Table 1	Demographic Statistics Sorted by Gender	67
Table 2	Frequency of Use and Perceived Effectiveness of Coping Behavior Treatment Methods . . . . .	69
Table 3	Relationship Between Personal Outlook as Measured by the Seligman Optimism/Pessimism Scale and Personal Outlook as Measured by Response to Direct Question. . . . .	72
Table 4	Relationship Between Personal Outlook and Perceived Degree of Success of Pain Management Program . . . . .	73

LIST OF APPENDICES

APPENDIX A.	THINKING, FEELING AND ACTING STRATEGIES CITED IN THE LITERATURE . . . . .	100
APPENDIX B.	PARTICIPANT CONSENT FORM . . . . .	102
APPENDIX C.	LETTER TO PHYSICIANS . . . . .	103
APPENDIX D.	TFA CLINICAL INTERVIEW FORMAT . . . . .	105
APPENDIX E.	HUTCHINS BEHAVIOR INVENTORY (HBI) . . . . .	106
APPENDIX F.	DEMOGRAPHIC AND TREATMENT METHOD RATING SCALE SURVEY . . . . .	107
APPENDIX G.	TREATMENT METHOD RATING SCALE . . . . .	111

APPENDIX H.	SELIGMAN OPTIMISM/PESSIMISM SCALE . . .	114
APPENDIX I.	SELF-PLOTTED AND INTERVIEW ANALYSIS TRIAD . . . . .	119
APPENDIX J.	CONTENT ANALYSIS OF TFA CLINICAL INTER- VIEW . . . . .	120
APPENDIX K.	TFA INTERVIEW ASSESSMENT AND RATIONALE .	122
APPENDIX L.	TRANSLATION OF INTERVIEW SCORES TO PER- CENTAGE TRIAD . . . . .	123
APPENDIX M.	HUTCHINS BEHAVIOR INVENTORY ASSESSMENT AND RATIONALE . . . . .	124
APPENDIX N.	COMPARISON OF SELF-PLOTTED, HBI AND INTERVIEW ANALYSIS TRIADS . . . . .	125
APPENDIX O.	GROUP AVERAGE PROFILES . . . . .	126
APPENDIX P.	USE OF METHODS BY DEMOGRAPHIC CHARAC- TERISTICS . . . . .	127
APPENDIX Q.	TFA PROFILES AND USAGE OF TYPE OF TREAT- MENT METHOD . . . . .	128

## DEDICATION

To a very special and wonderful husband, Alfred  
To my very special children, their spouses and their  
children -

My daughter Allyson, her husband Peter, and my grandson  
Ben  
My daughter Janine, the world traveler  
My daughter Lori, her husband Paul, my granddaughter  
Paige and one soon to arrive  
My son Wallace, his wife Trish, my grandson Justin and  
my granddaughter Kelly  
My daughter Danielle, fleet of fingers with a computer  
My daughter Krista, bringing art and music to the  
world.

Especially to Danielle for the countless hours of computer  
help and her "Mother, you put in the wrong codes".

Especially to Trish who had the courage to proofread and  
critique her mother-in-law's work.

To my Aunt Helen, a very unique and special person to us  
all.

Thanks for the shoulders to lean on, the tissues to  
wipe the tears, the countless hours of proofreading and  
correcting, the bearing with me through the gnashing of  
teeth and tearing of hair as I worked on the computer,  
the cleaning, cooking, shopping, driving, jokes, bubble  
gum, ice cream and lollipops. Most of all thanks for  
the love, encouragement, and support which provided the  
wellspring from which I drew my strength and endurance  
to continue, and to finish.

## ACKNOWLEDGEMENTS

There are a great many people who throughout the years, and recently, enabled me to continue my work and to finish. I would like to take this opportunity to acknowledge their contribution, and to say a warmest and most heartfelt THANK YOU.

For my committee who so freely and graciously gave of their time, expertise and support - my sincerest and most heartfelt appreciation and thanks.

Dr. David Hutchins, Co-Chair who so generously shared his model, wisdom, his time, efforts, guidance and mentoring.

Dr. Gabriella Belli, Co-Chair. Do you remember, "Only fellow New Yorkers understand New York humor". You have been a source of strength and wisdom throughout, as well as in statistics. You so generously shared your expertise, time, efforts, guidance and mentoring which I shall never forget. I shall truly miss your wit and wisdom.

Dr. Linda Little, Cognate. Your words of wisdom and sense of humor always enabled me to see, and to do, what needed to be done. Your example was, is and always will remain the best thing I have ever experienced.

Dr. Walter Moretz, Psychology. I wonder if someday you will engineer the big locomotive, or I will steer the 18-wheeler, across country. I truly hope so because dreams are so vital and that is what you enable all your students to do and to be. Warmth, humor and caring are the core of your being, and may they always be so. Thank you for your support and for sharing all that with me through so many years.

Dr. Steven Brown, Physician. What is that old saying about saving the best for last? Surely that is so, but you must share some of that with Dr. Belli . Your very broad base of pain management knowledge, and your extremely competent and skillful hands restored functioning to my arm, as well as providing me freedom from chronic pain that enabled me to keep going in my pursuits. The literature search which launched my dissertation, the lap top computer which accompanied me to Blacksburg, the consult on the pain segment of Chapter Two, providing contacts to participate in my study - all important and extremely valuable. Even more valuable was, and remains so, the caring, compassion, listening, warmth and humor you shared with me. In a physician's busy world you



always had time to listen, to care, to heal.

There are no words to express my profound gratitude for all you've been, all you are, and all I hope you will continue to be. Please be assured that I will continue to "leave my veins at home" while you continue to "bring your rusty needles".

To each and every one of you I bid a very fond, but hopefully not a final, adieu. May all good things shower down upon your lives.

To Gerry M. - you know who you are. For all the hours of laughter and tears, tribulations and accomplishments, shared lunches, and sometimes childlike ventures. Always remember the proficiency, the T.S. and the peals of laughter after the shock.

To my wonderful participants whose motto was "Anything to further the cause of research in chronic pain", even though all the while in pain. They shared their time, their pain and their experiences with willingness, warmth, humor and honesty. I stand in awe of their endurance and courage.

To those who so graciously and diligently worked in providing contacts for me to make - Dr. Richard Baither, Pain Clinic of Fair Oaks Hospital, Fairfax, VA; Dr. Joel Friedman and the Work Rehabilitation Center, Newington, VA; Dr. Stephen Blood, Osteopath, Arlington, VA; Dr. Steven

Brown and Ms. Sherry Fisher, Anesthesiology Department, Fairfax Hospital, Falls Church, VA; and those participants who referred others to the study.

To Ms. Elizabeth Bingham and Ms. Grace Simmons, Department of Anesthesiology, Fairfax Hospital, Falls Church, VA who took countless messages from me and saw to it that they arrived promptly, and conveyed packages back and forth with great speed. Also, to Ms. Sherry Fisher, Dr. Stephen Kennedy and Dr. Francis Balistrieri, Department of Anesthesiology, Fairfax Hospital for their consults on my literature regarding pain, as well as their assistance in managing my own pain which enabled me to continue my work. Without their efforts, support and skill it would have been more difficult to finish my work.

To the Sisters of the Order of Notre Dame of Chardon, Ohio for the sharing of their time and their hospitality. Most of all for their enveloping me with their warmth, humor, love and tranquillity at a time my body, soul and mind were so in need of that.

To Pat Meneely, Marriage and Family Department, VPISU, who was always there to provide a "hand" at critical times.

To Bill Moore, a wonderful statistician. For holding a shaky hand and guiding a rusty mind through the maze of statistical analyses with uncanny wisdom, infinite patience, warmth and humor. Most of all for his ongoing encouragement

that I would, indeed, survive all of this. Deepest thanks and heartfelt appreciation to Lois, his wife, who always fielded my calls with calm and patience, and at times the most enjoyable answering tape I have had the pleasure of listening to - sincerest thanks, and "peek-a-boo" to all of you too.

To all of my professional colleagues who shared their ears to listen, their shoulders to rest a weary and weepy head on, a hand to hold and words of encouragement to go on: Cathy Love, Steve Anderson, Beth Hauck, Michelle Eabon and Dr. Johnnie Miles of VPISU. Warmest thanks to each of you and wishes for all good things.

My very last acknowledgement goes out to a very special team of physicians, and their staffs, with deepest and most heartfelt thanks. Their individual and combined efforts have enabled me to continue to function in the best and the worst of times. Their competence and skill are spectacular. It is their patience, warmth, caring and compassion for a pesky patient that is truly spectacular, and speaks of the special uniqueness of each and every one of them. Nowhere, I feel, is there a more loved and respected team - Dr. Robin Merlino, Internist; Dr. Jack Wilkenfeld, Rheumatologist; Dr. Brian Campden-Main, Psychiatrist and Dr. Steven Brown, Anesthesiologist. Thanks so much for your faith and trust in me, for maintaining my health and sanity, and for getting me

to where I am today. To their staffs - Janet Skellenger, RN, Donna Hughes, Annette O'Connor, Mary Ann Pierson, RN and Linda Pumphrey. Thanks to all of you for hands to hold when in pain, cool drinks, soft tissues, gentle shots, patience in making and switching appointments, jokes and shared conversation.

As I bring this to closure I realize how truly blessed I am in knowing so many wonderful, special people. My life is enriched by all of them.

ASSESSING PAIN MANAGEMENT STRATEGIES

WITH THE TFA MODEL

by

Geraldine Elizabeth Vingelis

Committee Chairpersons: Dr. Gabriella Belli and

Dr. David Hutchins

(ABSTRACT)

The major purpose of this study was to determine chronic pain patient's differential use and perceived effectiveness of various cognitive, affective and psychomotor treatment strategies used in the management of pain. Utilizing the TFA System (tm) to determine patient's behavior patterns, a second goal was to determine if treatments were more effective when they matched the behavior pattern. The TFA System is a systematic and integrated approach using thinking (T), feeling (F) and acting (A) components which provides a chance for individual and situation specificity in a treatment situation.

The major research questions were addressed through empirical results obtained from a volunteer sample of 39 chronic back pain patients.

Five thinking, five feeling, and eight acting treatment methods were examined. T methods were used by slightly more

than 50% of the patients, and had the highest frequency of monthly use. F methods were the least used, and had the lowest frequency of use even among those who did use them. Only half of the A methods were used by most of the chronic pain patients, but these were used rather often in a month. Effectiveness for all methods was viewed as being relatively moderate, irrespective of use, with spirituality being perceived as being most effective. Overall, the majority of subjects were not successful in their pain management.

Furthermore, there was no relationship between success and personal outlook when a published scale was used to categorize subjects as optimistic or pessimistic. However, based on a self-categorization, almost all the pessimists were not successful, while self-proclaimed optimists were equally likely to be successful as not.

There was no apparent relationship between chronic pain patient's behavior profiles and type of treatment methods used. Individual's TFA patterns did not "match" the methods being used to deal with their pain. Overall, no significant differences were revealed in type of treatment method used depending on the demographic characteristics of gender, age, income, education and marital status.

Recommendations for both future research and clinical practice were presented.

## CHAPTER ONE

### INTRODUCTION

For the majority of the population the alarm going off in the morning is a signal for them to arise, shower, dress and go off to work. Most of these activities are accomplished without too much concentrated thought or effort. However, for a portion of the population the alarm going off in the morning is a signal for another day of dealing with pain - chronic pain. Whether it be headache pain, muscle pain, low back pain, arthritic pain or a disorder in the nervous system; the pain is almost always there, and disruptive to the day-to-day functioning of the individuals who experience chronic pain (Bolles, 1990; van Der Meer, 1990; MacLean, 1990).

Chronic pain plays no favorites. It is experienced by all races, creeds, sexes, economic and educational levels of society. Nociception is the sensory input associated with the stimulation of specific nerve endings which are triggered by tissue-damaging thermal, chemical or mechanical stimuli. Although advances have been made in the basic scientific understanding of the mechanisms underlying nociception and in the development of innovative therapeutic interventions, the incidence of chronic pain is increasing

rather than abating (Hanson & Gerber, 1990). Lost work hours, disability funds paid out, medical costs and emotional upheaval within the family system take a major toll on the individual, the family and on society. While physical and economic components take their toll on the individual, the psychological impact can be severe. Depression, sleep disruption, loss of self-esteem, loss of a sense of control, and dependency are some of the major difficulties the chronic pain sufferer must deal with on an everyday basis. Many of these issues are dealt with through the intervention of the medical profession. Pain killers, anti-depressants, physical therapy, and exercise are often the prescribed treatment. These interventions often do not even begin to deal with the psychological barriers and impact being experienced by the individual living with chronic pain.

The chronic pain sufferer needs someone to listen to him/her on a very personal intense level, not only to deal with the physical pain, but to deal with the psychological pain. Although the treatment personnel do listen, too many times there are just too many patients to be tended to and they cannot zero in on, or allot time to, one individual.

Occasionally the chronic pain patient is referred to a mental health practitioner who it is believed will "listen" to the individual. However, the client is generally dealt with from whatever approach that the counselor is accustomed



to using. While a counselor's interventions may work with some individuals, they may not always work for others. Individuals are diverse whether they be general clients or chronic pain sufferers. It is in diversity that uniqueness resides. When counselors can zero in on the diversity and uniqueness of an individual, and use their skills of adapting to that uniqueness then the most opportunity for change and improvement is available to the client. Many of the theorists dealing with chronic pain suggest in their literature that the counselor needs to adapt; however, these same theorists do not say how this can be done, when it may be done, where it can be done or the reason the adaptation should occur.

The diversity of individuals in chronic pain and their unique methods of coping behavior deserves special attention. Counselors who are able to work effectively with the specific uniquenesses of a chronic pain sufferer may offer psychological, physical, and economic benefits to the individual and society.

PROBLEM STATEMENT

There are numerous studies which describe coping behaviors that are recommended and used in the field of chronic pain. The medical profession utilized its specialties of pharmacology and physical therapy, as well as behavioral medicine such as exercise and biofeedback (Chapman, 1984; Keefe & Dolan, 1986; Linton, 1989). They, however, felt the need for the intervention of professionals from the psychological community to help the chronic pain sufferer learn to utilize more appropriate coping behaviors in dealing with the pain. Imagery, relaxation, distraction and reinterpretation were some of the techniques that were attempted (Scott & Barber, 1977; Weisenberg, 1977; Fernandez & Turk, 1989).

While these techniques may be viable for some people, other studies report chronic pain patients only having limited benefits from the use of these techniques. In part it is believed that the individual is not trying and thus is a "malingerer", "pain dependent" or a failure (Menges, 1984; Philips, 1987; Turk & Holzman, 1987). The diversity of individuals in specific situations has not been investigated in regard to coping behavior in chronic pain. Furthermore, specific treatment methods may play a key role in determining successful outcomes in treatment programs. Finally, if

individual differences are related to differential treatment methods, it could help provide more effective coping methods for specific patients. TFA Systems(tm) provides a tool to investigate situation specificity, coping behaviors for chronic pain patients, and treatment. This occurs through assessing individual thinking (T), feeling (F) and acting (A) dimensions of behavior in specific pain situations. The TFA Clinical Interview and the Hutchins Behavior Inventory (HBI) are used to assess individual's perceptions of behavior in the chronic pain situation.

The procedural problem for this study was to assess the effectiveness of pain management strategies, perceived by chronic back pain patients, using the TFA model.

#### PURPOSE

The general purpose of this study was to determine the effectiveness of pain management strategies used in client treatment of chronic back pain patients. Also, relationships between treatment methods and various demographic characteristics were explored. Specifically, the following tasks were addressed:

1. Classify coping behavior treatment methods used by chronic back pain patients.
2. Assess their TFA patterns in specific pain situations.

3. Determine relationships between TFA coping behavior patterns and successful outcomes in treatment of chronic back pain patients.

#### RESEARCH QUESTIONS

The following major research questions directed this study, which is based on empirical results from a volunteer sample of chronic pain patients.

1. What do chronic pain patients do in terms of thinking, feeling and acting to cope with chronic pain? Specifically:
  - a. What coping behavior treatment methods have they used or are they now using?
  - b. What is the relative frequency of their use of treatment methods within cognitive (thinking), affective (feeling) and psychomotor (acting) domains?
  - c. Are cognitive, affective and psychomotor methods being differentially perceived with respect to their effectiveness in pain management?
  - d. How important is one's outlook (optimism vs pessimism) perceived in a chronic pain patient's success/outcome in pain management?
2. What is the relationship between TFA patterns and

treatment methods?

- a. Do individuals whose TFA pattern match their treatment mode have a higher perceived effectiveness than their counterparts with improperly matched treatment modes?
3. What are the relationships between the use of various treatment methods and the following demographic variables?
- a. Gender
  - b. Income
  - c. Education level
  - d. Age
  - e. Marital status

#### ASSUMPTIONS

1. It is assumed that chronic pain can have a severe psychological impact on an individual.
2. It is assumed that the medical profession has attempted to deal with this impact.
3. It is assumed that there are psychological interventions in use, but they may not be appropriate for some individuals.
4. It is assumed that the Hutchins Behavior Inventory (HBI) and TFA Clinical Interview are appropriate measures for assessing behavior of chronic back

pain patients.

LIMITATIONS

1. This study was not conducted with random sampling, but utilized volunteers. Therefore, generalization may be limited.

DELIMITATIONS

1. This study focused on chronic back pain patients.
2. This study focused on volunteer's perception of success in their treatment program.
3. This study focused on males and females, within the age ranges of 23 to 76.
4. This study focused on aspects of TFA Systems which may contribute to success.

DEFINITIONS

Alexithymia - An inability to find appropriate words for mood or the lack of awareness of the basis of emotion; an inability to verbalize feelings and attempts to present a "super-normal" picture of mental health (Papciak, et al, 1987, P.347)

Back pain - the sensory and emotional experience associated with actual or potential tissue damage in the area of the back; "any type of back pain may be influenced by psychosocial problems and conflicts and these factors regularly alter the patient's perception and reporting of structurally mediated pain, as well as the resultant degree of disability and response to therapy." (Merck Manual, 1987, P.1292)

Behavior - the interaction of thoughts, feelings and actions in a specific situation. (Hutchins & Cole, 1992)

Chronic pain - the cognitive, affective and psychomotor sensation experienced by individuals for a period of six months or longer, arising from trauma or accident, surgery or even of unknown etiology. When pain persists beyond an expected time necessary for healing of an injury or after the expected course of an acute disease.

Coping behaviors - strategies engaged in by a chronic pain sufferer in order to lessen the pain. (Holzman, Turk &

Kerns, 1986)

**Counseling** - a process by which a counselor intervenes with specific strategies which has as its goal the change of behavior within the existing life-style of an individual (Mosak, 1989); a process involving an interaction between a counselor and a client in a private setting, with the purpose of helping the client change his/her behavior so that a satisfactory resolution of needs may be obtained. (George & Cristiani, 1981)

**Distraction** - "the process of dissociating or refocusing thoughts or attention from those concerned with pain and anxiety reduction and pain relief, to the imagination of past experiences that were incompatible with pain; the individual concentrates on emitting developmentally appropriate behaviors or increases in mobility and sleep as pain perception decreases." (Varni, Jay, Masek, Thompson, 1986, P.172)

**Hutchins Behavior Inventory (HBI)** - an instrument designed to measure thinking, feeling and acting orientations of individuals in specific situations. It consists of 25 word-pairs in each of three combinations: thinking-feeling, feeling-acting, and acting-thinking. (Hutchins & Mueller, 1992)

**Imagery** - wherein an individual is asked to imagine scenes, while relaxed, while in various situations (in this



case related to pain and intensity of pain and stress). The person can then mentally rehearse specific thoughts, feelings and behaviors to cope with the stress and pain.

**Nociception** - refers to sensory input associated with the stimulation of specific nerve endings (A-delta and C-fibers) that are triggered by tissue-damaging thermal, chemical, or mechanical stimuli. (Hanson & Gerber, 1990, p.17)

**Pain** - "the sensory and emotional experience associated with actual or potential tissue damage, ... includes not only the perception of an uncomfortable stimulus but also the response to that perception. ... Experiencing pain is influenced by a great number of interacting physical, mental, biochemical, physiologic, psychological, social, cultural, and emotional factors." (Taber's, 1989, p.1301). Sensation experienced by an individual which encompasses the cognitive (Thinking), affective (Feeling) and psychomotor (Acting) domains - TFA.

**Relaxation** - a process in which an individual can use a variety of techniques to bring a sensation of calm and peace to body and mind. The individual tells him/herself what is wanted (heartbeat is calm and regular, I am at a very peaceful spot and can allow my muscles to

relax, etc.), in order to produce the desired physical and mental results. (Faelten & Diamond, 1988)

Success - ability to continue to function in daily activities relatively free of pain, or at least with a diminished level of pain; to function with freedom from the fear of pain; to remain mobile and not become incapacitated. (From responses of participants in the TFA Clinical Interview)

TFA Clinical Assessment - use of a counselor's skills in combination with TFA procedures to determine an individual's thinking, feeling and acting in specific situations.

TFA model - a theoretical model developed by Hutchins (1979, 1982, 1984) "... to assist practitioners select counseling approaches and to help clients achieve counseling goals, ... enables counselors to choose from a mainly cognitive-, affect-, or action- oriented approach after assessing whether the client is a predominantly thinking, feeling or acting individual." in specific situations. (Mueller, Hutchins & Vogler, 1990, Pp.203-204)

TFA Systems (tm) - a comprehensive approach to assessment, intervention and resolution which uses the TFA model. (Hutchins & Vogler, 1988)

TFA triad - the closed inner triangle which graphically

pictures the interaction of thoughts, feelings and actions of an individual as plotted on the TFA triangle.

TFA triangle - A triangular figure developed by Hutchins on which one's thoughts, feelings and actions are plotted.

Traditional counseling interventions - techniques utilized by counselors from a number of differing therapy approaches, (i.e. Cognitive, Rational-Emotive, Humanistic, Behavioral), such as reflective listening, assertiveness training, guided imagery, biofeedback, relaxation, respect, trust, genuineness. (Merskey, 1986)

#### ORGANIZATION/SUMMARY

Chapter Two presents a review of the literature pertinent to chronic pain, coping skill behavior, and counseling/treatment modalities in use presently. TFA Systems and relevant literature and clinical issues are also presented.

Chapter Three presents the research design and instrumentation that were used. Any instruments used in collection of data and/or assessment are included.

Chapter Four contains results of analysis, as well as any tables or graphs that are pertinent to present-

tation of the findings.

Chapter Five presents a discussion of findings of this study in light of the literature review. Implications for practice and further research are drawn.

#### OVERVIEW OF THE STUDY

1. Prospectus presented to the Doctoral Committee, which included a brief literature review.
2. The Virginia Polytechnic Institute Human Subjects Review Committee approved study.
3. The researcher enlisted chronic pain patients from doctors, pain centers, and chiropractic physicians who deal with individuals experiencing chronic pain, as well as participant referrals, and screened them as appropriate. A letter and/or telephone call was sent/made to the aforementioned providers of participants discussing the researcher's status as a doctoral student, the nature of the study and the need for volunteers (Appendix C). Each provider discussed the study with patients, and then provided the researcher with the patient's telephone number for initial contact. Patients were male and female, who experienced chronic back pain who volunteered to participate

in the study.

4. In an initial screening interview on a face-to-face basis, the full study was described in detail to each participant, and a consent form (Appendix B) was signed acknowledging the research aspects, as well as their participation in the study.
5. Instruments used included:
  - a. TFA Clinical Interview (TFA Triangle/Triad) - an audiotaped face-to-face interview with each participant, used to determine TFA behavior patterns. Enabled the researcher to focus on thoughts, feelings and actions in specific situations relevant to the experience of pain.
  - b. Hutchins Behavior Inventory (HBI) - to assist in determining TFA behavior patterns in specific situations.
  - c. Results from the literature review regarding thinking (T), feeling (F), and acting (A) approaches to treatment.
  - d. Demographic Survey - administered to determine the client's perception of successful treatment methods, the role optimism/pessimism might play in successful outcomes, as well as the relationship between various

demographic characteristics and treatment methods.

- e. Treatment Method Rating Scale - administered to assess treatment methods used/being used, as well as the relative frequency of use, and perceived level of effectiveness.
- f. Seligman Optimism/Pessimism Scale - administered to assess participants perception of self as optimistic/pessimistic.

#### NEED FOR THE STUDY

Chronic pain is a syndrome that at times can seem to take on "epidemic proportions", when one examines the number of sufferers and the overall impact on the economic, medical system, and caregiving segments in society (Linton, 1987; Weiner, 1990). Chronic pain is coming to the forefront for study in recent years as recognition grows of the physical, psychological and economic consequences experienced by the individual, the family and society. While the medical profession, including nursing and physical therapy, works with chronic pain, psychological aspects have not received similar attention. Only within the last five to ten years have mental health professionals begun to delve into the realm of chronic pain, chronic pain patients, and treatment.

Counseling with chronic pain patients, individually or

in groups, can have a profound influence on many facets of the client's day-to-day functioning (Daniel, et al, 1983; Linssen & Zitman, 1984; Mac Kenzie & Wakat, 1990). Of profound importance to that individual's functioning are the coping skills that can be incorporated into a patient's repertoire of behavior, such as imagery, distraction techniques, relaxation techniques and exercise programs. While numerous studies have dealt with coping skills of chronic pain patients in general, they have not focused on the situation specific cognitive (thinking), affective (feeling) and psychomotor (acting) domains of the chronic pain patient.

Counselors can play a decisive role in assisting chronic pain patients to incorporate coping skills, as well as to use them at the appropriate time and in the appropriate manner for each individual to achieve successful outcomes in pain management and pain programs (Mac Kenzie & Wakat, 1990). Of key importance to the accomplishment of this goal may be the interaction between the counselor and the client. The literature is rife with the importance of the counselor-client relationship (Corey, 1977; Gilliland, James & Bowman, 1989; Corsini & Wedding, 1989), but most do not say how to adapt. Furthermore, there is not any investigation of the cognitive (thinking), affective (feeling) and psychomotor (acting) functioning of a counselor, in general, or one who may work with the chronic pain population in

particular. Only recently has the concept of specifying thinking (T), feeling (F) and acting (A) components of both the client's and the counselor's behavior been addressed (Hutchins, 1979; 1982; 1984). Integral to this approach is the interaction and integration of behavior patterns for each individual and between persons. Mueller, Hutchins and Vogler (1990) give strong evidence of situation specificity making a difference. This is bolstered by the work of Clow, Hutchins and Vogler (1990) in working with court-referred spouse abusers, and also by the work of Tieman (1991) who demonstrated major changes in female adult victims of incest. Each of these studies have used aspects of TFA Systems. The examination of T, F, and A factors could prove beneficial to the field of counseling in the area of chronic pain.

TFA Systems of Hutchins & Vogler (1988), enables a counselor to determine individual TFA patterns. In this study the TFA pattern of a chronic pain client in a specific situation will be investigated. Results of this study will assess the effectiveness of pain management strategies, using the TFA model, perceived by patients who have been diagnosed as having chronic back pain conditions. Rather than relying on a general orientation, the treatment personnel may be able to intervene in more effective and efficient ways. If so, this may allow more straight-forward thera-



peutic interventions that are beneficial to specific individuals in coping with and ameliorating the pain. The enhancement of day-to-day functioning and a return of a sense of control to an individual's life would be important outcomes. This study will add to both the theory and practice of counseling and psychotherapy, particularly with a chronic pain population.

## CHAPTER TWO

### REVIEW OF THE LITERATURE

This study is grounded in psychology, as evidenced through the application of the principles of counseling and psychotherapy, particularly in the variables of Thinking (T), Feeling (F), and Acting (A) in counseling individuals who experience chronic pain. It is also grounded in behavioral medicine particularly as it occurs in practices such as exercise programs and physical therapy, wherein psychological principles are applied as in biofeedback, imagery and relaxation.

### PAIN

#### Physiological Aspects of Pain, Acute and Chronic

There are numerous underlying causes which can contribute to the ongoing stimulation of the Central Nervous System (CNS) and peripheral tissues (joints, muscles), and the resulting perception of pain. Pain does not, in and of itself, exist in the damaged tissues, but is perceived in the brain as a result of signals which travel to the brain for processing (Brena, 1978; Stieg & Williams, 1983). The Central Nervous System is composed of the brain and the spinal cord through which pain messages are transmitted.

As Walker (1991) states,

"The human body is designed to deal with a certain range of stimulation efficiently and effectively. When stimulation for the external and internal environment of the body exceeds the CNS's limits, changes begin to occur in the nervous system, including the registration of pain and the occurrence of dysfunction."(P.26)

Degree of pain perceived in the brain is regulated by the severity, frequency and intensity of the signals being received. Thus when the perception of acute pain occurs, a defensive/aversive response is automatically triggered in the CNS which is directly proportional to the perceived intensity of the signals. "As a result, harmful situations that may result in serious tissue damage can often be averted or diminished."(MacKenzie & Wakat, 1990, P.165). It is within this framework of understanding, as Stieg & Williams state, that "... all subjective pain is based on the neurophysiologic activity of the brain and is physical in nature, that is, a biologic reality."(P.371).

According to Bonica (1990) the distribution of sensory fibers, which contain nociceptive axons, is more or less segmental throughout the body. Also, "Peripheral nerves consist of sensory, somatic motor, and autonomic motor fibers that are connected to the central nervous system."(P.28). Injury to tissues, regardless of how it is incurred, constitutes a noxious stimuli which, in turn,

creates cellular breakdown with a releasing of intracellular biochemical substances. These substances

"... activate specialized high-threshold receptors, called nociceptors, and their afferent nerve fibers, which, acting as transducers, convert the stimuli into nociceptive impulses that are promptly transmitted to the CNS. Nociceptive impulses from the entire body below the head are transmitted via fibers that synapse with interneurons or second-order neurons in the dorsal horn of the spinal cord; impulses from the head are transmitted via sensory fibers in cranial nerves that synapse with neurons in the trigeminal sensory nuclei ..."(P.28)

According to Whitehead & Kuhn (1990), "It is now understood that small unmyelinated C-fibers and A-delta fibers carry pain impulses from specialized nerve endings that serve as pain sensors in the skin, muscle, blood vessels, and organs ..."(P.10). Messages initiated by noxious stimuli, which can be seen in acute and chronic pain, are transmitted by small, thinly myelinated afferent fibers known as A-delta fibers. The pain messages transmitted by the myelinated A-delta fibers occur at the rate of 15-120 m/sec, and when translated usually carry information concerning severity of pain, as well as specific location of pain. Bonica states that "Because these A-delta afferents are activated by threshold stimuli that range from gentle pressure to damaging pressure Paintal called them 'pressure-pain endings'."(P.34). These A-delta fibers enter the CNS and synapse in different layers of the dorsal horn (which is

part of the gray matter in the spinal cord, and is where spinal narcotics block pain when administered). They then travel to the opposite side of the spinal cord, ascending to the brain in the white matter of the spinal cord known as the neospinothalamic tract, as demonstrated in Figure 1 (Bonica, 1990; MacKenzie & Wakat, 1990). The unmyelinated C-fibers transmit acute pain information much more slowly than the A-delta fibers, and are also responsible for what is known as "... slow-burning, or second-order, pain." (MacKenzie & Wakat, P.166). Thus the messages carried by C-fibers are weaker in intensity, as well as less localized than those traveling on the A-delta fibers. While C-fibers enter the spinal cord in a way similar to the A-delta fibers, they reach the brain via the pathway of the tract known as the paleospinothalamic which is also shown in Figure 1. The paleospinothalamic tract is made up of short and long fibers that transmit messages through organs in the brain. These fibers go through the reticular formation, the hypothalamus and then the thalamus to limbic structures in the forebrain (Carlson, 1981; Hendler, 1981). When these signals reach the CNS they are transmitted into verbal, action and/or emotional responses.

In acute pain, responses usually reflect a current situation being experienced (i.e., surgery, broken bone,

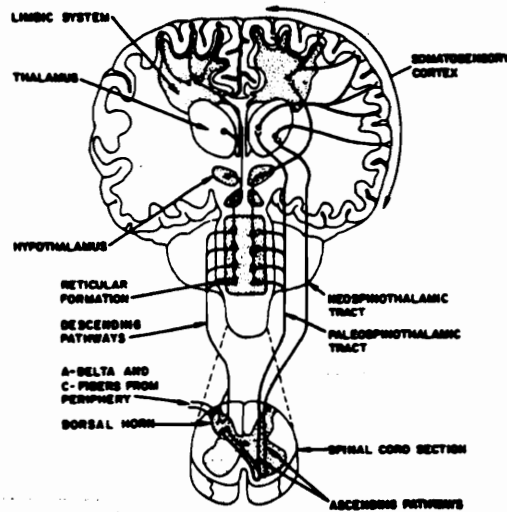


Figure 1. Components of the Central Nervous System involved in pain transmission and modulation. From MacKenzie, S.R. and Wakat, D.K.: The physiology of chronic pain: The foundation for successful intervention strategies. *Journal of Mental Health Counseling*, 14(2), 164-174, 1990.

etc.), whereas in chronic pain that may not always be the case (pain is still being experienced after the healing has taken place). Chronic pain gives a whole different dimension to the topic of pain and pain management. The acute pain model, as discussed above, is considered inadequate to explain the disability and pain that chronic pain sufferers experience, and thus other factors must be taken into consideration in dealing with the phenomenon of chronic pain (Philips, 1987). As an alternative to the acute model of pain, a theory has been proposed by two researchers, Melzack & Wall (1965), known as the Gate Control Theory which helps

to clarify the complexity of chronic pain and the multiple determinants of the experience of pain. As Philips states,

"The long accepted unitary model of pain was replaced by a multivariate conception, that could parsimoniously explain acute and chronic pain. As well as the well-established experiential component of pain, Melzack and Wall drew attention to the importance of considering the motivational/behavioral component, the influence of cognitions, and the role played by mood and emotional state, as well as attitudes and memory."(P.159)

The Gate Control Theory proposes that a gate mechanism is mediated by inhibitory feedback from the cerebral cortex. The gate closes due to a preponderance of large over small fiber input from peripheral nerves, thus when a painful area is rubbed touch sensation is carried along those large fibers. When this occurs the gate is closed on painful stimuli which may be traveling on the small fibers. In essence, "... mechanisms operating in the dorsal horn of the spinal cord open or close 'gates' which allow or prevent impulses generated by peripheral noxious stimuli to have access to higher centers."(Whitehead & Kuhn, 1990, P.15). This system, as well as some of its modifications, recognizes factors involved with pain transmission from central cells in the spinal cord, affects conscious perception of pain, and thus can be influenced by awareness at three levels: affective-motivational, sensory-discriminatory, and cognitive-evaluative (France & Krishnan, 1990; Jay & Miller, 1990; Lakoff, 1990; MacKenzie & Wakat, 1990; Whitehead &

Kuhn, 1990). However, as Nathan (1976) and Carron (1987) noted earlier, that while a number of studies have attempted to prove this theory it has not been shown that all facets of the theory are valid. "Still, the importance of this theory should not be underrated, since it has served to stimulate much thinking on the subject of pain and helped us to come to the conclusions we have today about effective treatment of chronic pain."(Carron, 1987, P.17).

In this theory Melzack & Wall have proposed that as magnification of perception of pain can result from behavioral, physiological and emotional responses, that behavioral and/or cognitive actions can reduce the perception of pain. Jay & Miller (1990) concur that cognitive approaches can be applied to all three of the aforementioned levels. However, it is necessary to investigate this assumption, and also the possibility that other approaches may prove beneficial to a chronic pain patient.

### The Nature of Chronic Pain

Chronic pain has been recognized as a problem that impacts on an individual, on the family and on society (Ahern, 1986; Elliott, 1986; Roy, 1989). That impact can be psychological, physical and economic (Brena, 1978; Stieg & Williams, 1983; Chapman, 1984). The physical and economic



components have been studied and documented for many years (Beers & Karoly, 1979, Linton, 1987). Chronic pain is defined as "... an extended experience of embodied discomfort - quite often associated with neuromuscular pathologies - that fails either to heal naturally or to respond to normal medical intervention." (Kotarba & Seidel, 1984, P.1393). Pain can occur as a result of untreated acute pain (short-duration) which can arise from illness, disease, organic/systematic/functional/psychosocial trauma or surgery to a body part or the nervous system. The difference between acute and chronic pain is the time frame, with chronic pain lasting six months and longer, and wherein nociception is present despite the lack of an explanation on an anatomical or physiological base (Jay & Miller, 1990; Merskey & Magni, 1990). Cancer, headache, backache, muscle and joint pain, stomach pain and dental pain are all conditions which can be classified as major chronic pain syndromes. As cited by a number of researchers, these can generate intense, ongoing pain which then results in an individual limiting physical activity, displaying guarded movement, having social withdrawal, and heightened interaction with the health care and disability compensation systems. Along with the physical and environmental components and consequences of the pain, a chronic pain sufferer must also deal with the psychological components of depression, loss of self-esteem, issues of

dependency, a sense of loss of control of life situations and decisions, sexuality, feelings of failure, anger, fear, pessimism and guilt (Maruta, et al, 1981; Engelbart & Vrancken, 1984; Wise & Rosenthal, 1982; Lipton & Marbach, 1984; Shapiro, 1985; Brown & Nicasio, 1987; Turk & Holzman, 1987; Avery, 1990; Hanson & Gerber, 1990; MacKenzie & Wakat, 1990).

### The Nature of Back Pain

The Bureau of Business Practice, Incorporated (1991, P.1) states that:

- Eighty percent of all Americans will suffer a back injury that will mean seeking medical attention.
- Once you have suffered a back injury, you are four times as likely to suffer from back pain again.
- Back pain makes up 30 percent of all job injuries.
- Back injuries keep more workers off the job and are the cause of more lost wages than any other ailment.
- Surgery can ease back pain only 10 percent of the time.
- Back pain causes more than 70 million people to suffer.
- Back problems cost Americans \$5 billion annually.

A number of researchers in both the field of medicine and psychology cite similar or confirmatory information (Raj, 1986; Ramamurthy, 1986; Linchitz, 1987; Beck & Lustig, 1990; France & Krishnan, 1990; Marciani, 1990).

Back pain sufferers spend a good part of their lives at the mercy of a body part in which the pain may come and go over the course of months or years, or it may never go away at all. According to Belar & Kibrick (1986), "The term chronic back pain (CBP) is commonly used to refer to benign back pain of six months or more duration. Its origin is believed to be related to degenerative, muscular, or inflammatory processes, structural abnormalities, or traumatic injuries, although the precise mechanisms are unclear." (P.131).

"Back injuries don't always happen all of a sudden. Often, they are the result of years of abusing your back until it is so weak and stressed that one wrong move - a sudden twist, an improper lift or bend - will finally cause something to 'snap'." (Bureau of Business Practice, 1991, P.5). The causes of back pain can be multitudinous: congenital postural abnormalities, bad posture, degenerative diseases of intricate muscle and ligament structures in the human skeleton which allows individuals to walk upright, neck injuries (i.e., whiplash) and tension (which creates spasms); also, dystrophy (weakening/degeneration) and diseases which often attacks the muscles and discs of the back (De Andrade, 1978; Hendler & Fenton, 1979; Turk & Holzman, 1986). Muscles and ligaments support the back, and these can be strained from constant misuse. The spine, which is

the mainstay of the structure of the back, contains the discs. Twenty-four bones called vertebrae make up the spine, and these are kept together by a thick feltwork of fibrous tissue known as ligaments, and by groups of muscles known as paraspinal muscles. Between each vertebra is a disc (also referred to as a "shock absorber") which allows joints to move smoothly. Each disc is soft on the outside and contains a jellylike substance inside. When this substance in the disc pushes against an already weakened back wall (from too much bending or lifting incorrectly) the disc can slip. Should the disc tear and the inner jellylike substance come out, then a ruptured disc would result (De Andrade, 1978; BBP, 1991). Both conditions can result in extreme pain for the individuals who may experience them.

Low back pain is felt in the areas of the back known as the low lumbar, lumbosacral, or sacroiliac region and is often accompanied by sciatica, which is pain radiating down one or both buttocks and/or legs in the distribution of the sciatic nerve. "Most low back pain is related to acute ligamentous (sprain) or muscular (strain) problems, which tend to be self-limited, or to the more chronic osteoarthritis and ankylosing spondylitis of the lumbosacral area (Stedham's, 1990, P.1292). Other causes of chronic low back pain are strain due to poor posture or poor conditioning, fibromyalgia, a protruding or ruptured intervertebral disk,

traumatic ligament rupture, fracture, infection, mild congenital defects of the low lumbar and upper sacral spine, and nonmechanical pain due to adjacent visceral disease (Stedham, 1990).

Concurrent with the physical causes of the back pain, however, are emotional components which can also play a role, and which can contribute to the persistence and intensity level of the pain being experienced (Belar & Kibrick, 1986; Keefe & Dolan, 1986; Beck & Lustig, 1990; Fairfax Hospital, 1991). Recognition of this important factor is stated in Stedham's Medical Dictionary, "Any type of back pain may be influenced by psychosocial problems and conflict, and these factors regularly alter the patient's perception and reporting of structurally radiated pain, as well as the resultant degree of disability and response to therapy." (P.1292).

### TREATMENT CONCEPTS

#### Medical and Physical Treatment

The medical profession has been dealing with the concept of pain, both acute and chronic, from as early as the 1800's (Evans, 1947; Arieff, et al, 1964; Schwartzman & McLellan, 1987), and continues to deal with it quite extensively to the present time (Kozin, et al, 1981; Uematsu, et

al, 1981; Siegel, 1986; Siegel, 1989; Hanson & Gerber, 1990). However, it has only been within the past few decades that medical practitioners have been increasingly confronted with the particular phenomenon of the syndrome of chronic pain (Engelbart & Vrancken, 1984). Bonica (1980) reviewed data from numerous surveys concerned with pain incidences and compiled his findings with those of National Institute of Health studies. He concluded that more than one-third of all Americans experience recurrent or persistent pain which required medical therapy.

The typical medical therapy program is comprised of a number of components such as pharmacological intervention, physical therapy and anesthesiological interventions utilizing the skills of doctors (internists, orthopedists, neurologists, anesthesiologists), nurses and physical therapists. The physician administers the analgesic and/or anti-inflammatory medication, by pill or injection, to reduce the pain level (Ekelund, 1978; Maciewicz, et al, 1985, Sweet & Poletti, 1985; Satterthwaite, 1989). Physical therapists apply the ultrasound treatment, massage, TNS/TENS (transcutaneous electric neuro stimulation) instruments, and exercise programs (Owens, et al, 1979; Sweet & Poletti, 1985; Ljungdahl, 1990). Anesthesiologists provide pain relief through the use of a variety of trigger point injections (injections directly into the spasmed musculature),

as well as nerve blocks (medication induced into a nerve structure such as a nerve root/trunk or sympathetic ganglion by intravenous procedure or by injection) directly to the area of pain (Weisenberg, 1977; Breckner & Ferrer-Breckner, 1978; Burguer & Smit, 1981; Eriksen, 1981; Dolce, et al, 1986; Jaret, 1990; Ljungdahl, 1990).

### Integration of Medical and Psychological Treatment

While dealing with the physical components of chronic pain the medical profession has also had to deal with the psychological components through the use of individual counseling or psychotherapy, and imagery techniques. Unfortunately, many practitioners were not adequately prepared to deal with this area and when patients did not improve the practitioner thus began to conceptualize and label the chronic pain patient as being a malingerer, or as being pain dependent, or of having acquired "learned helplessness" (Menges, 1984; Philips, 1987; Herman, 1990). A number of practitioners, however, recognized the need for psychological intervention and proposed that it become a component of pain management, thereby opening the door for counselors to use their skills with the chronic pain population. As stated by Miller (1990),

"Increasingly, the medical community has begun to turn to professionals in psychology, nursing, social work and rehabilitation counseling to ad-

dress both the diagnostic and therapeutic aspects of chronic pain patients. ... There is considerable evidence to suggest that such an approach is most beneficial to the patient and to the medical professionals who have begun to realize that a systems approach to the treatment of chronic pain might well be the most effective method of treatment." (P.842)

### Counseling and Psychotherapy

The psychological impact, while recognized, has only begun to be strongly examined within the last five to ten years (Sternbach, 1986; Wu & Smith, 1987, Jaret, 1990). In the 1980's professionals in the mental health profession began to recognize the emotional impact that chronic pain can have on an individual, and the effects that can occur as a result, as well as the role that they could play in dealing with it. Much of the information to that point, as noted, resulted from the work done in the medical profession, which includes the fields of nursing, physical therapy and anesthesiology.

Numerous studies have been done in the field of medicine and in psychology on the various techniques to help an individual cope with, and thus reduce, chronic pain (Fernandez, 1986; Fernandez & Turk, 1989; Linton, 1989; Hanson & Gerber, 1990). In researching these studies, and numerous others, it appeared that each treatment method discussed could be classified into a cognitive (Thinking),



affective (Feeling) or psychomotor (Acting) domain, and related to the TFA Systems of Hutchins (1979, 1984), as demonstrated in Appendix A. Methods employing relaxation, imagery (guided or self-initiated), self-talk and distraction, as well as others, all operate from an active cognitive, or thought, process to cope with and/or relieve pain. Exercise programs (walking, bicycling, etc.), physical therapy and use of medications all involve taking very action-oriented, direct steps to control/relieve pain. Affective methods, which would involve feeling processes, are notable by their absence. This may be attributable to the internalized, tenuous nature of this particular domain, or as Menges (1984) stated "... Moreover, emotional, behavioural and psychophysiological symptoms related to pain are regarded as cognitive in origin."(P.1259). Nevertheless, in relating the aforementioned studies to the cognitive (Thinking), affective (Feeling) and psychomotor (Acting) domains, the preponderance of different types of treatment methods being used became apparent. What also became apparent in dealing with these studies was that those treatment methods considered the most effective in pain management are cognitive (Thinking) methods.

These studies, cited above, have demonstrated the feasibility of certain generalized techniques. However, some literature indicates such general techniques may not work

with some individuals and suggests that there may be treatment methods that have potential for utilization which need to be explored, although exactly what these are is not clearly stated (Keefe & Dolan, 1986; Wise & Rosenthal, 1982). These same studies, already cited, have not focused on the particular cognitive (thinking), affective (feeling) and psychomotor (acting) domains of the chronic pain sufferer in specific situations which may prove important to recovery. There also has not been any investigation as to which particular domain in treatment methods may prove more effective than another for a particular individual. Nor has there been any investigation of the techniques used by counselors who work with a chronic pain population. The examination of these three factors could provide more effective therapeutic intervention.

#### TFA Systems (tm)

There are numerous approaches used in counseling and psychotherapy today. The Cognitive Therapies of Beck, Rational Emotive Therapy of Ellis, and Rational Behavior Therapy of Maultsby all have a thinking (T) orientation and focus on changing thoughts. The Client/Person Centered Therapy of Rogers, Gestalt Therapy of Perls, and Existential Therapy of Maslow all encompass the feeling (F) orientation and focus on changing feelings. The Behavior Therapy of Wolpe, and Behavioral Counseling of Krumboltz & Thoresen

have an acting (A) orientation and emphasize changing actions (Hutchins & Cole, 1992). In looking at these approaches, however, it can be seen that their theories and techniques have significant overlap in their processes and goals. The TFA Model of Hutchins-(1979, 1984) differs from its predecessors in that the major focus is to demonstrate how the different schools of counseling and psychotherapy can be integrated to provide a counselor with a more effective tool to respond to unique/individual needs of a client. It provides structure for specificity, yet flexibility for diversity; also, it provides a chance for individual and situation specificity in a treatment situation.

The cognitive (Thinking), affective (Feeling), and psychomotor (Acting) concepts have been most systematically applied to counseling and psychotherapy by Hutchins (1979, 1982, 1984), by Hutchins and Cole (1992), and in TFA Systems (tm, Hutchins & Vogler, 1988). TFA Systems addresses the interaction and assessment of thinking (T), feeling (f) and acting (A) components of behavior. Hutchins (1984) proposed that "The TFA System is a practical method counselors can use to adapt theories, techniques and their personal style to working relationships with clients."(P.572).

Through the systematic use of thinking, feeling and acting components in TFA Systems, a more personal and pragmatic intervention may be designed that enables the ther-

apist to respond to the unique individual needs of each client (Hutchins & Cole, 1992). Methods have been designed in order to assist an individual in a given situation. At this time we do not know if they are effective in working with chronic pain patients. However, there is reason to believe that the TFA System may be effective because it specifically targets and responds to unique variations in behavior characteristics of individuals. This process could prove important in regard to successful outcomes in treatment programs. Weisenberg (1977), Turk & Holzman (1987), and MacKenzie & Wakat (1990), among others, speak of the need for an intervention that would be designed for the uniqueness of each patient.

The utilization of the TFA Systems which encompasses the Hutchins Behavior Inventory (HBI), the TFA Triangle and the TFA Clinical Interview may provide the information by which successful interventions could be designed. These instruments and the interview are used to gather information of importance regarding an individual's behavior in a specific situation. The TFA Clinical Interview( Appendix D) obtains this information through the use of three specific questions relating to a stated specific situation. The responses are then plotted on a TFA triangle forming a triad which is indicative of a client's behavior orientation and dominant behavior pattern.

The Hutchins Behavior Inventory (HBI), as seen in Figure 2, also generates a triad on the TFA triangle which is based on the responses of the client to twenty-five word-pairs in each of three combinations (T-F, F-A, and A-T) in a specific situation. For example, assume that a patient is dealing with pain in musculature and the counselor is dealing with a client with chronic pain in an exercise program (see Figure 2.1, 2.2). If an individual's stated behavior pattern is in the A-T (acting, thinking) mode (with "A" dominant), and treatment methods/coping strategies are in the cognitive (thinking) mode, that individual may not respond successfully to the recommended pain management strategy (see Figure 3). The use of TFA instruments could enable counselors and chronic pain individuals to focus on more effective coping behavior, with a long-term goal of pain reduction and improved day-to-day functioning.

The TFA System as situation and person specific is demonstrated in group psychotherapy of court-referred male spouse abusers (Clow, Hutchins & Vogler, 1990) and by Tieman (1991) in her work with adult victims of incest. The TFA Triangle is used to assist the client in visualizing and communicating the interaction of thinking, feeling and acting experienced in a specifically identified situation.

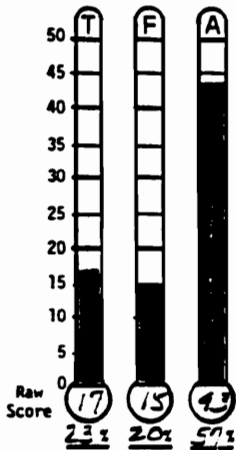


**HUTCHINS BEHAVIOR INVENTORY<sup>®</sup>**

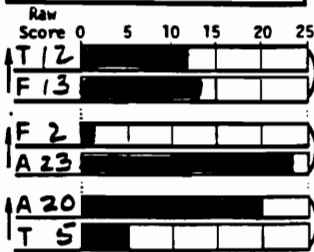
Name G.V. Patient SSN \_\_\_\_\_ Date 6/12/90

Situation Pain in musculature

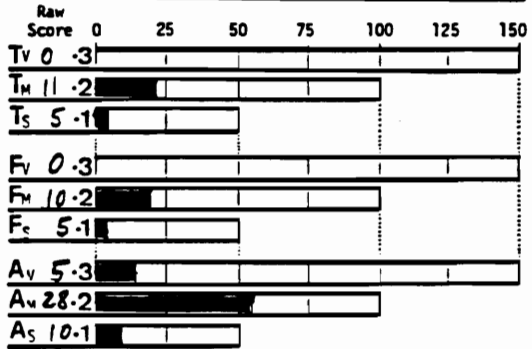
**1 T F A PROFILE**



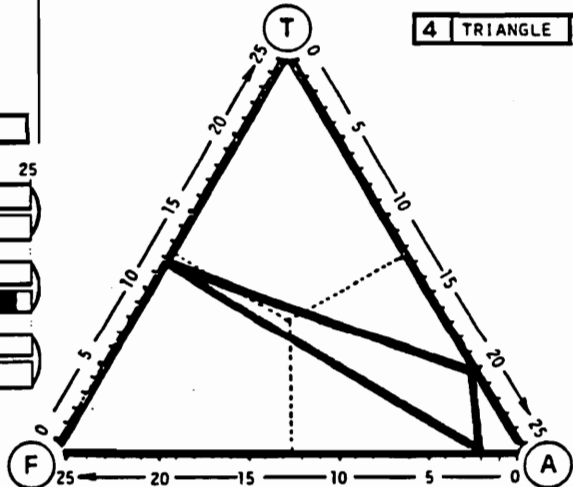
**2 BIPOLAR SCORES**



**3 INTENSITY SCORES**



**4 TRIANGLE**



© 1984, DAVID E. HUTCHINS, PH.D.

Intensity -  $T = 1.58$   
 $F = 1.66$   
 $A = 1.88$

Triad - 16 ( $A_6 t_2 f_2$ )

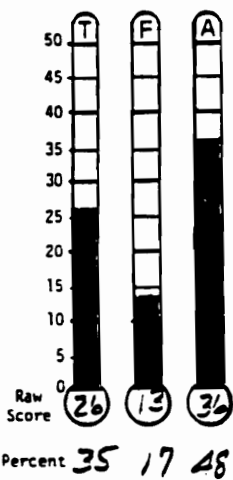
Figure 2.1 HBI Triangle, Triad and Profile of Patient in Pain.

**HUTCHINS BEHAVIOR INVENTORY<sup>®</sup>**

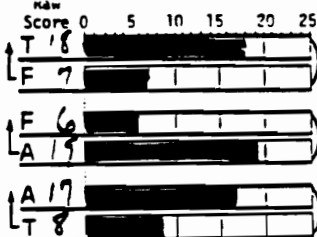
Name G.V. SSN \_\_\_\_\_ Date 8/12/90

Situation Co dealing w/Cl w/ chronic pain / Ex. Program

**1 T F A PROFILE**



**2 BIPOLAR SCORES**

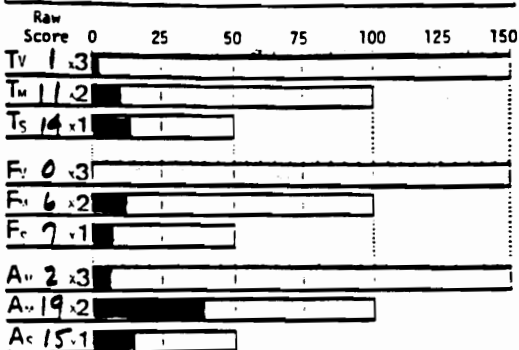


© 1984, DAVID E. HUTCHINS, PH.D.

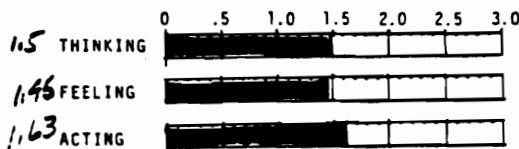
Triad T<sub>3</sub>  
F<sub>0</sub>  
A<sub>5</sub>

Translation  
A<sub>5</sub> = T<sub>5</sub> (Triad 8)

**3 INTENSITY SCORES**



**AVERAGE INTENSITY SCORES**



**4 TRIANGLE**

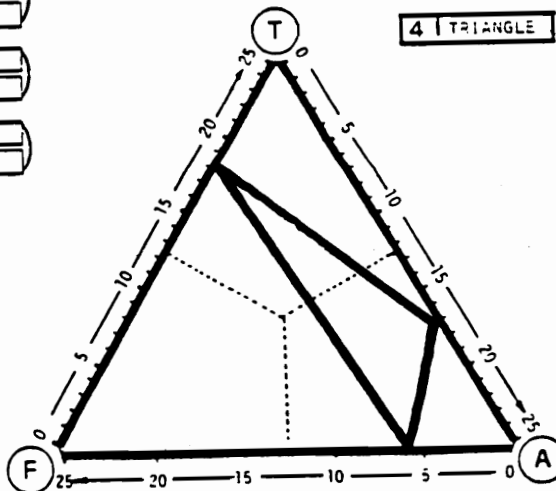


Figure 2.2

HBI Triangle, Triad and Profile of Counselor dealing with Client with Chronic Pain.



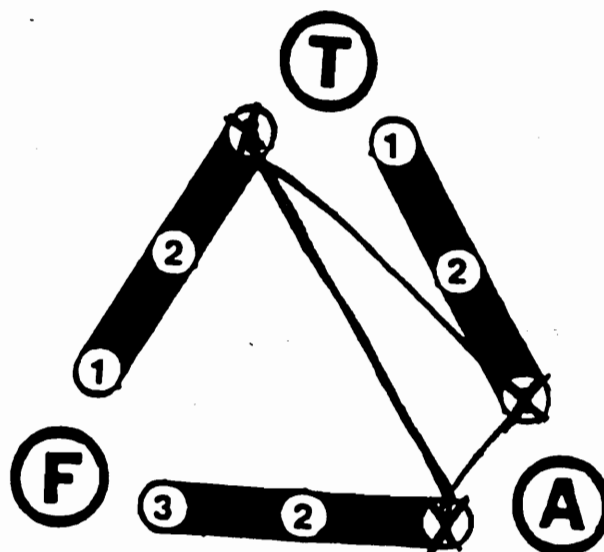


Figure 3. TFA Triangle Demonstrating Behavior Pattern.

I chose to use the TFA assessment of pain management methods used in client treatment because it may suggest intervention strategies that could be designed to help clients more effectively cope with chronic pain.

### Assessment of Treatment Effectiveness

Assessment of treatment(s) can be used for deciding upon a focus, or which components to emphasize, for treatment of the chronic pain patient. It can also be used as a tool of evaluation. With the advent of many new and improved treatment methods and programs - in medicine, in psychology, and in counseling - has come the desire, and need, for operationalizing the assessment of treatment methods in terms of the chronic pain patient's pain management outcome.

Goals are delineated by the physician, physical therapist or pain center at the chronic pain patient's initial entry into a pain management program. This is so that both the patient and the treatment personnel agree on what outcome will be striven for and, hopefully, achieved. Many programs have explicit goals (i.e., increase functioning, return to work, decreased use of medication), and treatment methods are then chosen and utilized with the chronic pain patient. Evaluation of the effectiveness of the treatment program is made either at the end of the treatment program

or at a later point in time. However, assessing the effectiveness of treatment methods and determining success, or a successful outcome, in the management of chronic pain can often be difficult (Melzack, 1975; Cohen, et al, 1983; Daniel, et al, 1983; Stieg & Williams, 1983; Trifiletti, 1984; Turk, et al, 1985; Maruta, et al, 1990; Skinner, et al, 1990). This can be due to, as Hartmann & Ainsworth (1980), state:

"... the likely confounding of treatments with sequence effects. One cannot determine whether the first (or second) intervention led to more (or less) change because of the treatment itself, or because of the order in which it appeared."(P.39)

Nevertheless, a number of self-report instruments have been devised (i.e., McGill Pain Questionnaire, Pain Rating Index, Pain Response Questionnaire, Beck Depression Inventory, Profile of Mood States) to attempt to measure pain level, and effectiveness and/or success in pain management.

Investigators in the field of chronic pain have employed these self-report instruments as assessment tools with chronic pain patients. Treatment personnel also use these instruments for evaluation purposes of the chronic pain patient, as well as contributing their personal observations of the patient to the assessment workup. Level of pain is assessed before application of a treatment method, and then again when the treatment program is ended. If a reduction in pain level or frequency of experience of pain is re-

ported, then it is considered that a treatment program is effective and/or that a successful outcome has been achieved. Components such as increased physical/social activity, return to work and lowered anxiety/depression are also yardsticks by which an effective treatment program and/or successful outcome are measured (Hartmann & Ainsworth, 1980; Kabat-Zinn, et al, 1985; Cleeland & Tearnan, 1986; Cook, et al, 1988; Kleinke & Spangler, 1988; Subramanian & Rose, 1988; Maruta, et al, 1990).

What does not appear to have been done to any degree is to have the chronic pain patient rate the effectiveness of a specific treatment method(s), in terms of that individual's perceived successful outcome in pain management. The Treatment Method Rating Scale (TMRS) seen in Appendix G was developed to accomplish this purpose. Doing this and relating effective treating methods to a chronic pain patient's specific mode of behavior, as can be determined by the aforementioned TFA Clinical Interview and/or Hutchins Behavior Inventory, could provide treatment personnel and helping professionals a means by which to utilize treatment methods that would lead to increases in successful outcomes.

#### The Effect of an Individual's Outlook on Treatment Success

Chronic pain patients experience unremitting pain for long periods of time, and usually are demoralized as a re-

sult. A number of these individuals will succumb to the pain by decreasing activity, ceasing to work, experiencing feelings of hopelessness, and/or becoming medication dependent. Yet other individuals in the same situation will seemingly "rise above" the pain and continue on with their lives, not succumbing to the demoralization that can occur. Optimism can be a force which combats the insidious effects of demoralization (Turk & Holzman, 1986). For individuals entering a pain management program, treatment can present a message of optimism to some, but not to others, thereby having an impact on the effectiveness of treatment methods.

One component that may have a possible bearing on a chronic pain patient's perception of treatment effectiveness, or success of outcome, is that of an individual's general outlook on life and life situations. It has been proposed that a chronic pain patient's sense of optimism vs pessimism could be an important factor, with optimism contributing to success in pain management and pessimism contributing to non-success in pain management; also, that more investigation needs to be undertaken in this area (Wise & Rosenthal, 1982; Roberts, et al, 1986; Turk & Holzman, 1987; Weisberg & Page, 1991). Optimism and pessimism are linked to the chronic pain patient's sense of locus of control, as well as self-efficacy, in life, with an internal locus of control being attributed to those deemed optimists

and an external locus of control attributed to those deemed pessimists. An external locus of control refers to a belief that one's actions and emotions are controlled by powerful, outside forces over which one has little or no control, and an internal locus of control refers to a belief that one has control over their emotions, actions and capacity to control external events. With an acceptance of external control comes an admission of helplessness and, in effect, a refusal to accept responsibility for actions and feelings, thus fostering passivity in an individual (Girodo & Wood, 1979; Ciccone & Grzesiak, 1984; Jensen, et al, 1987; Sherman, et al, 1987; Herman, 1990; Williams & Kinney, 1991). In other words, it is possible that the individual who "copes" may be the one who feels more in charge of him/herself, thereby being more assertive in dealing with the pain and the treatment personnel, thus fostering a more "optimistic" approach to pain control and pain management outcome (Worthington, 1978; Anderson & Rehm, 1984; Reesor & Craig, 1988; Baquie, 1989; Cousins, 1989; Williams & Kinney, 1991).

Seligman (1990), Siegel (1986,1989) and Cousins (1989) speak of the role optimism/pessimism can play for a person coping with pain or ongoing illness, and Seligman also speaks of how the concept of "learned helplessness" fits into the pattern. Learned helplessness results when there is exposure to sustained, uncontrollable noxious stimuli

(such as pain), and the individual ceases to try to cope with the situation. After a period of time of experiencing such a state, tasks which might reduce the stress (i.e., for a chronic pain patient - exercise, relaxation methods, etc.) fail to be undertaken, let alone mastered, thus fostering increased loss of control and increased passivity. Seligman also speaks of how the phenomenon of learned helplessness even affects the immune system and concluded that "... learned helplessness doesn't just affect behavior; it also reaches down to the cellular level and makes the immune system more passive. ... Optimists resist helplessness. ... Across a lifetime, an optimistic person will have fewer episodes of learned helplessness than a pessimistic person will."(P.173). Seligman developed a scale called the Attributional Style Questionnaire (ASQ) which measures causal attributions for good and bad events in individual's lives, and is important in the concept of learned helplessness (Peterson, et al, 1982). More recently he developed another scale, an offshoot of the ASQ, which attempts to measure an individual's optimistic or pessimistic outlook on life. Such an instrument could prove beneficial in assessing outlook in general, but could also be worthwhile in assessing chronic pain patients' outlook due to the non-threatening nature of its questions (Appendix H), as it does not focus on pain or pain concepts. The optimism/pessimism scale,

(Appendix H) is not as complex or lengthy as the ASQ, nor does it have any of the outward pathological implications dealing with personality factors in comparison to such instruments as the Minnesota Multiphasic Personality Index (MMPI) and the California Personality Inventory (CPI).

Having information available concerning a chronic pain patient's outlook, particularly in terms of their conception of locus of control, could provide treatment personnel with a tool to work more effectively with that individual, thus enhancing pain management/coping behaviors and successful treatment outcome.



## CHAPTER THREE

### METHOD

The major focus of this study was to determine chronic pain patient's perception of success with coping/treatment strategies used in their pain management program. Additionally, possible relationships between treatment methods and Thinking, Feeling and Acting (TFA) patterns, as well as demographic characteristics, were explored.

#### Population/Sample

The population of interest was adults experiencing chronic pain from a back condition. This particular population (back pain instead of chronic pain in general) was chosen to provide homogeneity. Chronic back pain problem is the most common type of pain and provides a larger population from which to draw the sample. Participants were referrals from physicians treating chronic pain patients, pain management programs, chiropractic physicians and participant referrals. From a total of 45 referrals, 39 people (87%) volunteered to participate in the study.

#### PROCEDURE

##### Data Collection

Chronic pain patients who volunteered to participate in the study were initially contacted by telephone at which time the complete step-by-step process was explained in detail

and an appointment was set for administration of the research instruments.

Volunteers were interviewed on a face-to-face basis at their home, their office or at the interviewer's office. Each participant was provided with a folder containing a consent form, the TFA Clinical Interview format sheet, the Hutchins Behavior Inventory (HBI) (Hutchins, 1984), the Demographic Survey, the Treatment Method Rating Scale (TMRS) and the Seligman Optimism/Pessimism Scale (Seligman, 1991). Each folder was number coded to provide confidentiality. The complete step-by-step process was reviewed in detail again, and upon completion of the review each participant signed the consent form. The TFA Clinical Interview, which was audiotaped, was then conducted by the researcher. The audiotape was turned on and the researcher noted the date, the volunteer's number and stated it was the TFA Clinical Interview. The nature of this interview is described in the instrumentation section below.

Upon completion of the interview, the tape was turned off and each participant proceeded through the remaining four paper and pencil self-report instruments. The maximum time anticipated to complete all of the assessment instruments was two hours. This time frame was discussed with each participant at the initial telephone contact to set up the interview appointment. The actual time needed was be-

tween 55 and 75 minutes, with only three participants using the full two hours.

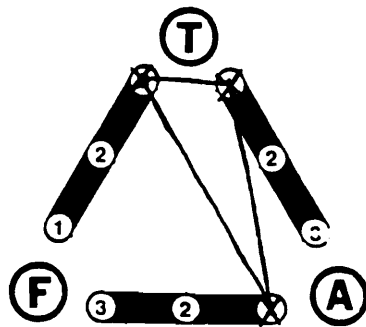
### Instrumentation

Assessment instruments employed included a TFA Clinical Interview procedure, the Hutchins Behavior Inventory (HBI) (Hutchins, 1984), a Demographic Questionnaire developed by the researcher, a Treatment Method Rating Scale developed by the researcher, and the Seligman Optimism/Pessimism Scale (Seligman, 1991).

TFA Clinical Interview. This instrument and procedure is part of the TFA systems (Appendix D). It is used by helping professionals to assess and interpret a client's behavior patterns in specific situations. For this study the specific situational cue used was: "Describe your worst back pain in the last month."

The respondents had a TFA triangle in front of them during the interview, and they marked it as appropriate. This TFA triangle consists of an open-ended triangular shaped figure with T, F and A at each of the vertices. Each side of the triangle has a bipolar or continuum scale on which a range of behaviors are recorded. The left side of the triangle ranges from thinking (given a value of 3) to feeling (given a value of 1) with 2 being a midpoint indicating a blend of the two behaviors. The bottom of the

triangle ranges from feeling (3) to acting (1) and the right side of the triangle ranges from acting (3) to thinking (1), and both are recorded in the same manner as the left side. On each side the client's stated behavior is plotted on one of the three points on each scale: T-F, F-A, or A-T. These three points are then connected to form a TFA triad. The TFA triad is a closed inner triangle which graphically displays the interactions of one's thinking (T), feeling (F), and acting (A) in a specific situation. For example:



This can lead to one of the twenty-seven different triad patterns because of the three points on each side ( $3 \times 3 \times 3 = 27$ ) that describe an individual's behavior in a specific situation. "These twenty-seven triads can be grouped into four major triad groups. Each has variations that relate to dominance or blending of the thinking, feeling, and acting dimensions." (Hutchins & Cole, 1992, p.23).

Administration involved asking three major questions pertinent to the previously decided specific situation, "Describe your worst back pain in the last month.": (A) In this situation was your behavior more thinking (3), more feeling (1), or about in the middle (2), (B) In the same situation was your behavior more feeling (3), more acting (1), or about in the middle (2), and (C) still in the same situation, was your behavior more acting (3), more thinking (1) or about in the middle (2)? The participant plotted an "X" on the 3, 2 or 1 on each side, and the points were connected to form a closed inner triangle representing the participant's TFA triad.

Further probing was used to determine specifics that were representative of the participant's behavior (e.g., "Please elaborate on specific aspects of your behavior that led you to respond to A, B and C as you did"), as well as reasons for a particular choice on each side of the TFA triangle. These details were noted on paper attached to the interview format. Any discrepancies between the participant's initial designation on the TFA and specific descriptions of behavior were discussed and reconciled tentatively at the time, with the subject making necessary shifts in the triad. Thus, the resulting TFA triad should reflect the relationship between the participant's description of behavior specifics and the representations of that behavior.

Complete adjustment of the triad was pending on full analysis of the content of the participant's responses from the audiotape, and this was discussed at the time with each participant. This is discussed under the instrumentation section.

Hutchins Behavior Inventory (HBI). This instrument was developed as part of the TFA model in 1984 (Appendix E). It is a self-report inventory used to assess a client's thinking (T), feeling (F) and acting (A) in specific situations. It is described as a test of relationships among T, F, and A to help a client gain new insights into the complex interweavings of behavior in a wide variety of specific situations (Hutchins & Cole, 1992). It consists of 25 word pairs in each of three combinations - T-F (e.g., logical-compassionate), F-A (e.g., sensitive-doing) and A-T (e.g., doing-logical). This also results in a TFA triad, plus three intensity scores and three bipolar scores. For each set of word pairs participants were instructed to use the previously decided specific situation ("...worst back pain in the last month."), choose one word of the pair, decide how characteristic it was of them, and fill in the appropriate circle.

Reliability information on this instrument cited by Mueller, Hutchins, and Vogler (1990) show estimated Cronbach alpha coefficients ranging from 0.78 to 0.90.

Demographic Questionnaire. This questionnaire was developed for this study to obtain demographic information pertaining to chronic pain patients, i.e. age, gender, education level and level of income. Information was also obtained on the nature of the back pain, length of time participant had pain, interference with day-to-day functioning, participant's definition of success in pain management, and participant's perception of themselves as optimistic or pessimistic.

Treatment Method Rating Scale. This scale was developed for this study after a review of the literature, to obtain chronic pain patient's perception of treatment method used, their relative effectiveness, and their frequency of use (Appendix G). Participants read a treatment method and if they were using/had used it, it was circled. They then circled a number on a scale of 1-7 as to how effective it was perceived to be, and a number was entered for how frequently it was used on a daily, weekly or monthly basis. This was used to examine relationships to TFA patterns.

Seligman Optimism/Pessimism Scale. This instrument was developed by Seligman (1990) as a result of his graduate studies in the concept of learned helplessness with animals (Appendix H). He applied the same concept to human subject's outlook in certain situations in their lives, and the

eventual outcome of that situation. Participants read a description of a situation and if they had experienced it a circle was then made on one of two accompanying responses as to how they might have acted in that situation. If the situation had not been experienced it was requested that they imagine it happening and then choose one of the two responses.

As the literature dealing with chronic pain cites learned helplessness in terms of outcomes in pain management, this instrument was used to explore possible relationships between the optimistic/pessimistic outlook and perceived success in pain management by chronic pain patients. Reliability data will be provided.

#### ANALYSIS OF DATA

##### TFA Classification (Triad)

The TFA Clinical Interview and the Hutchins Behavior Inventory (HBI) both generated TFA triads, which were used to determine the dominant behavior pattern of an individual in a specific pain situation.

TFA Clinical Interview - An initial triad was generated by the participant during the interview. Verbal responses to the probing questions about their selection were transcribed from the audiotape. These transcribed statements were then content analyzed and used to produce a second TFA



triad (see Appendix I). These two triads were compared for consistencies.

The criteria for the content analysis and procedures for determining this second triad were as follows:

- A. Thinking - a statement that was actually a thought or idea; images/dreams/fantasies/perceptions; anything implying decision making; anything which appeared to be an assessment, not what the participant was actually feeling (e.g., "I found myself wondering about ...", "In the last year and a half it just seems to be chronic and I find myself wondering what that means.").
- B. Feeling - a statement or emotion that was or described an emotion or feeling; anything emotive, sensations, mood statements; anything implying experiencing/feeling. Also based on respondents non-verbal states with verbal expressions - looks, tears, eyes closed, low voice, body sags, slow/weak response (e.g., "I was depressed because ...", "A feeling of helplessness ...").
- C. Acting - a statement of taking physical, observable action; also based on body movement and body movement accompanying verbal statements; references to walking, sitting, trying, did, doing, activity (e.g., "I shift positions to ...", "I get into a chair which supports

my back.", "I take my medication.", "I walk to work out the pain.").

D. T-F-A Combinations (T-F, T-A, F-A) - two or more aspects of a statement that could be categorized (e.g., "I was taking action (A), but I was thinking (T) about it.", "I was mad (F) at myself, (T) because I did something stupid.", "When I got back into bed (A), all I could think (T) of was how much it hurt (F).").

E. TFA - a word/sentence which could be used in either/all categories (e.g., distracting, enthusiastic). At times a judgment needed to be made about the context (e.g., "As a result of the pain, I was not as enthusiastic as I usually am), the diminished enthusiasm could be in all three domains - mental (T), emotional (F) and psychomotor (A).

F. In a sequence of several things each different action, feeling, thought was itemized - "I got on my back and raised my legs (one set of actions), and then called the doctor (second action).".

G. Sometimes taking action would be to deliberately initiate or change one's thinking in a decisive way (e.g., "Then I finally took action (A), I started to think about it and decide what to do to relieve the pain (T).").

H. If a participant elaborated on a thought, feeling or action, the rationale was included as part of the same cognition, feeling or action.

I. The same reference was stated only once - whether it was a thought, feeling or action - if it referred to the same thing (e.g., "The feelings were coming out as severe pain, and it was severe pain (F).").

Each TFA component received one point for scoring purposes, and each component in a combination was also scored a one. For each participant T-F-A scores were totaled on the T-F side of the triangle, on the F-A side of the triangle, and on the A-T side of the triangle (see Appendix J). All thinking scores were totaled together, as were the feeling scores and acting scores resulting in three bipolar scores. These bipolar scores were converted to a percentage of each scale by adding the scores for each scale and dividing the sum into the score of the first letter of each scale (see Appendix K). The results were then plotted on a percentage triangle (see Appendix L) to form a triad based on verbal responses.

Hutchins Behavior Inventory (HBI) - the HBI was administered to subjects. The optical scan sheets for this were sent to the campus of Virginia Polytechnic Institute and State University in Blacksburg, Virginia for scoring and

plotting of TFA triads in the specified situation of experiencing chronic back pain.

Results from these sheets produced: a) TFA scores, a measure of the relative number of thinking, feeling, and acting items checked, b) three sets of Bipolar scores for each side of the TFA triangle (T-F, F-A, A-T), and c) a computer-plotted TFA Triad that is the operational integration of thinking, feeling, and acting scores for an individual's behavior who is experiencing the specific situation (see Appendix M). This triad was then compared to the initial self-plotted TFA triad for consistencies.

Other Instruments (Treatment Method Rating Scale, Demographic Questionnaire, Seligman Optimism/Pessimism Scale)

The Number Cruncher Statistical System (NCSS) was employed for the statistical analysis of the data collected in these instruments.

A descriptive summary using a frequency table was used to determine the number of chronic back pain patients using a T, F, or A treatment method, how often in a month a particular method was used, and the average of perceived effectiveness of the treatment methods. Eighteen treatment methods were designated in this study: five cognitive (distraction, spirituality, self-talk, imagery, hypnosis), five affective (discussion of fatigue/anxiety/depression with

family, discussion of fatigue/anxiety/depression with friends, interpersonal communication with a physician, interpersonal communication with a physical therapist, counseling/psychotherapy), and eight psychomotor (medication, exercise, relaxation techniques, physical therapy, traction, biofeedback, nerve blocks, surgery).

The number of participants using a T, F, or A method was computed in frequency percentages, while the number of times a month a method was used generated a median figure instead of a mean. This was due to the fact that the data were not normal and would be too skewed for an average to be meaningful. The perceived effectiveness was computed on a Likert Scale with one (1) being low (not effective), seven (7) being high (completely effective) and four (4) the midpoint (effective, moderately effectively).

A Chi Square test of independence was performed to investigate: (1) the relationship between personal outlook as measured by the Seligman Optimism/Pessimism Scale and participants perceived degree of success in pain management, (2) the relationship between personal outlook as measured by a response to a direct question and perceived degree of success in pain management, and (3) the relationship between personal outlook as measured by the Seligman Optimism/Pessimism Scale and outlook as measured by the response to a direct question.

Three t-tests were performed to determine whether the number of treatment methods used within a certain class of treatment method was related to gender. Three correlations were also calculated to determine whether the number of treatment methods used within a certain class of treatment method was related to age.

Three distinct sets of Analysis of Variance (ANOVAs) were performed to determine whether age effects the likelihood of use of Thinking, Feeling, and/or Acting coping methods. For these analyses age was partitioned into the five classifications presented in Table 1 of this chapter. Similarly, a second series of three distinct ANOVAs was performed to determine whether family income effects the likelihood of use of Thinking, Feeling, and/or Acting coping methods. Family income was partitioned into four classifications. Also, a third series of three distinct ANOVAs was performed to determine whether educational level effects the likelihood of use of Thinking, Feeling, and/or Acting coping methods. For these analyses education level was partitioned into the five classifications presented in Table 1 of Chapter Four. Finally, a fourth series of three distinct ANOVAs was performed to determine whether marital status effects the likelihood of use of Thinking, Feeling, and/or Acting coping methods. For these analyses marital status

was partitioned into the four classifications presented in Table 1 of Chapter Four.

## CHAPTER FOUR

### RESULTS

The major focus of this study was to determine chronic pain patients perception of success with coping/treatment strategies used in their pain management program. Additionally, possible relationships between treatment methods and Thinking, Feeling and Acting (TFA) patterns, as well as various demographic characteristics, were explored.

#### Description of the Sample

The major research questions which directed this study were addressed through empirical results obtained from a volunteer sample of 39 chronic back pain patients (28 females and 11 males). As can be seen in Table 1, subject's ages ranged from 22 to 76 years, with a mean age of 46 years. The length of time pain had been endured ranged from one year to 49 years (1943 to 1992). Income was assessed on four levels with the majority (62%) having incomes greater than \$35,000. Almost all the males were in the \$35,000+ income bracket, but only half the females were, with 39% of the females earning less than \$20,000. Across the educational levels it was almost comparable for males



Table 1: Demographic Statistics Sorted By Gender

	FEMALE	MALE	TOTAL
<b>Number of Responses</b>	28	11	39
<b>AGE (years)</b>			
Mean	46.0	46.3	46.1
Standard Deviation	11.9	12.0	11.8
Minimum	22	30	22
Maximum	76	63	76
<b>Length of Time Pain Endured (years)</b>			
Mean	14.2	17.6	15.1
Standard Deviation	11.3	13.0	11.7
Minimum	1	2	1
Maximum	49	48	49
	N %	N %	N %
<b>Family Income</b>			
less than \$10,000	5 18	0 0	5 13
\$10,000 to \$19,999	6 21	1 9	7 18
\$20,000 to \$34,999	2 7	1 9	3 8
\$35,000 and above	15 54	9 82	24 62
<b>Education</b>			
no high school diploma	2 7	1 9	3 8
high school diploma	6 21	2 18	8 21
some college	13 46	2 18	15 38
college graduate	2 7	3 27	5 13
graduate/professional training	5 18	3 27	8 21
<b>Marital Status</b>			
single/never married	9 32	3 27	12 31
separated/divorced	2 7	2 18	4 10
married	15 54	6 55	21 54
widowed	2 7	0 0	2 5

All percentages are column percentages

and females. Thirty percent of the females and 28% of the males had no high school up to a high school diploma, while 73% of the females and 75% of the males had some college to graduate/professional training. There was also comparability in the category of marital status. Slightly more than half of the sample were married (54% of the females and 55% of the males).

#### Coping Behavior Treatment Methods

For this study five cognitive or thinking (T), five affective or feeling (F) and eight acting or psychomotor (A) treatment methods were examined. Table 2 contains the coping behavior treatment methods and their perceived effectiveness. Each type of method is discussed separately.

Thinking. Thinking methods were used by slightly more than half of the chronic pain patients, had the greatest monthly use, and were perceived to be less than moderately effective to slightly more than moderately effective (3.0-5.2). Of the three most used thinking treatment methods (distraction, 59%; spirituality, 56%; self-talk, 51%), spirituality appears to be perceived as being more effective (5.2) followed by self-talk (4.6).

Table 2: Frequency of Use and Perceived Effectiveness of Coping Behavior Treatment Methods

	N using method	% using method <sup>a</sup>	% of Total use <sup>b</sup>	Median use per month	Perceived Effectiveness <sup>c</sup>
<b>THINKING (Total = 78 <sup>d</sup>)</b>					
Distraction	23	59	29	40	4.4
Spirituality	22	56	28	52.5	5.2
Self-Talk	20	51	26	60	4.6
Imagery	10	26	13	22	3.8
Hypnosis	3	8	4	4	3.0
<b>FEELING (Total = 79 <sup>d</sup>)</b>					
Discussion of Fatigue, Anxiety, Depression...	19	49	24	6	4.0
with Family	19	49	24	4	3.6
Interpersonal Communication	16	41	20	2.5	4.4
with Physician	14	36	18	5	4.8
with Physical Therapist	11	28	14	1.5	4.6
Counseling/Psychotherapy					
<b>ACTING (Total = 157 <sup>d</sup>)</b>					
Medication	34	87	22	60	4.7
Exercise	34	87	22	18	4.8
Relaxation Techniques	33	85	21	30	4.5
Physical Therapy	24	62	15	8	4.4
Traction	12	31	8	27	3.3
Biofeedback	9	23	6	4	3.8
Nerve Blocks	9	23	6	2	3.2
Surgery	2	5	1	1	4.8

<sup>a</sup> % using method = frequency in each sub-category divided by 39, number of subjects

<sup>b</sup> % of Total use = frequency in each sub-category divided by total for method type

<sup>c</sup> Perceived Effectiveness from 1 = low to 7 = high

<sup>d</sup> Totals within each method type greater than N = 39 subjects due to use of multiple methods

Feeling. Relative to the other two treatment methods, feeling treatment methods were utilized by fewer chronic pain patients, and were being used with relatively low frequency (1.5-6 times a month). Of those being utilized, they were perceived as being only moderately effective (3.6-4.8). The two most used feeling methods (discussion of fatigue, anxiety, depression with family or with friends) had the lowest perceived effectiveness (3.6 and 4.0, respectively) of all five feeling methods. Counseling, the second most effective feeling method, was used the least.

Acting. Half of the acting methods were used by most of the chronic pain patients, with three (medication, exercise, and relaxation techniques) being used by more than 85% of the participants. These three methods were used rather often in a month, and were perceived as moderately effective (4.5-4.8). Both medication and exercise were used by equal numbers of chronic pain patients, yet the relative frequency of their use differed substantially (60 vs 18 times per month).

#### Personal Outlook and Pain Management

Personal outlook (optimistic or pessimistic) was measured in two ways: (1) through a direct question on the demographic instrument, and (2) with the Seligman Optimism/Pessimism Scale. Categorization of subjects from these two methods is found in Table 3. There was no significant

relationship between the two methods of classifying personal outlook ( $\text{Chi-square}(df=1)=.07, p=.80$ ). Only about half of the respondents were classified in the same way on both measures.

When asked directly to identify themselves as pessimistic or optimistic, the majority of respondents stated they were optimists (72%). Yet, from the Seligman Scale, only 49% were identified as optimists. Because of this inconsistency, both classification methods were used to relate personal outlook to pain management success.

Table 4 contains the results of perceived success depending on the two classifications used to assess personal outlook. When self-categorized through a direct question, there appears to be a significant, but moderate, relationship between personal outlook and success in pain management ( $\text{Chi-square}(df=1)=5.12, p=.03$ )/Cramer's  $V=0.37$ ). Almost all the self-proclaimed pessimists were not successful in their pain management, while self-perceived optimists were equally likely to be successful as not. When categorized with the Seligman Scale, there appears to be no significant relationship between the two variables ( $\text{Chi-square}(df=1)=.06, p=.90$ ). Overall, almost two-thirds of subjects were not successful in their pain management (63%).

Table 3: Relationship Between Personal Outlook as Measured by the Seligman Optimism/Pessimism Scale and Personal Outlook as Measured by Response to Direct Question

		Personal Outlook as Measured by Response to Direct Question		
		Pessimists	Optimists	Total
Personal Outlook as Measured by the Seligman O/P Scale	Pessimists	6 (15%)	14 (36%)	20 (51%)
	Optimists	5 (13%)	14 (36%)	19 (49%)
Total		11 (28%)	28 (72%)	39

All percentages based on N = 39.

Chi-square = 0.07, df = 1, p=.80

### Relationship Between TFA Patterns and Treatment Methods

TFA patterns were assessed in three ways: 1) self-plotting of a triad in response to direct questions in a clinical interview, 2) content analysis of responses given in the clinical interview, and 3) the Hutchins Behavior Inventory (HBI) (see Appendix N).

Although there were inconsistencies between the interview content analysis triad and both the self-plotted and HBI triads, the self-plot and the HBI were very consistent with each other. This was confirmed through a group average profile analysis (see Appendix O). Because of this consistency and the fact that they were both self-report measures,

Table 4: Relationship Between Personal Outlook and Perceived Degree of Success of Pain Management Program

			Pain Management Program			
			Successful	Not Successful	Total	Chi-square p-value
Method of Obtaining Personal Outlook	Direct Question	Pessimist	1 (9%)	10 (91%)	11	5.20
		Optimist	13 (48%)	14 (52%)	27	.03
Personal Outlook	Seligman Scale	Pessimist	7 (35%)	13 (65%)	20	0.06
		Optimist	7 (39%)	11 (61%)	18	.90
Total			14 (39%)	24 (63%)	38	

All percentages are row percentages

not subject to possible bias in interpretation, only the HBI was used in further analysis. Between the two self-report measures the established reliability and validity of the HBI made it the instrument of choice.

An analysis was undertaken to attempt to determine relationships between an individual's TFA pattern and the type of treatment methods they used. Appendix Q contains a complete description of each subject, grouped by TFA profile, and the number of each type of method they used. No consistent patterns emerged between profiles and treatment methods used. Subjects with similar TFA profiles used fairly different methods.

## Relationship Between Demographic Variables and Treatment

### Methods

Comparison of the number of methods used for various demographic characteristics showed no significant differences (see Appendix P). Some tentative patterns emerged.

Gender. Even though feeling methods were the least used, on average females used 2.2 methods while males only used 1.3 methods. Males used acting methods to a much greater degree than thinking or feeling methods.

Age. In the 50 and above (n=12) group, acting methods were more than twice as likely to be used than the other methods.

The relationship between age and treatment method types was further examined using the Pearson correlations between age and the number of each type of method used. These coefficients ( $r=0.27$ ,  $p=0.10$  for Thinking;  $r=-0.11$ ,  $p=0.50$ , for Feeling;  $r=0.04$ ,  $p=0.82$  for Acting) confirm the earlier finding that no significant relationship exists between age and treatment method type used.

Income. Acting methods were used the most, on average, by both the less than \$35,000 income bracket (4.2) and the \$35,000+ income bracket (4.6). It can be seen that the less than \$35,000 group used, on average, thinking methods (2.4) more than the \$35,000+ group (1.8).



Level of Education. Acting methods were the most used across all educational levels, while thinking and feeling methods were used almost equally.-

Marital Status. Acting methods were used the most, on average, by both the singles group (4.2) and the married group (4.7). The singles group used, on average, thinking methods (2.1) more than the married group (1.8).

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The focus of this chapter is to present a summary of the study that was completed. This chapter includes the conclusions derived from the analyses of the data, as well as recommendations for future research and for clinical practice.

#### SUMMARY

The major purpose of this study was to determine chronic pain patient's differential use and perceived effectiveness of various cognitive, affective and psychomotor coping skills/treatment strategies used in the management of their pain. Utilizing the TFA System to determine patient's behavior patterns, a second goal was to determine if treatments were more effective when they matched the behavior pattern.

Five thinking (T), five feeling (F), and eight acting (A) treatment methods were examined. Thinking methods were used by slightly more than 50% of the chronic pain patients, and had the highest frequency of monthly use. Feeling treatment methods were the least used, and had the lowest frequency of use even among those who did use them. Only half of the acting methods were used by most of the chronic

pain patients, but these were used rather often in a month. Effectiveness for all methods was viewed as being relatively moderate, irrespective of use, with spirituality being perceived as being most effective. Overall, the majority of subjects were not successful in their pain management. Furthermore, there was no relationship between success and personal outlook when a published scale was used to categorize subjects as optimistic or pessimistic. However, based on a self-categorization, almost all the pessimists were not successful, while the self-proclaimed optimists were equally likely to be successful as not.

There was no apparent relationship between chronic pain patients behavior profiles (TFA patterns) and type of treatment methods used. Individual's TFA patterns did not "match" the methods being used to deal with their pain.

Overall, no significant differences were revealed in type of treatment method used depending on the demographic characteristics of gender, age, income, education and marital status. Some tentative patterns that emerged were: (1) females used more feeling methods than males did, (2) the 60 and above age group used almost five times as many acting methods as thinking methods, (3) in the \$20,000-34,999 income group all three methods were used almost equally.

CONCLUSIONS

1. Although a variety of methods were used, very little or no relief was obtained.
2. In contrast to the literature, which suggests thinking methods are the most used and most effective, it appears that acting methods were used by more individuals and were used the most frequently.
3. There was no relationship between individual's behavior profiles (TFA patterns) and the methods chosen to deal with their pain.
4. Diverse methods of pain management appeared to be applied in a rather random fashion.
5. There is a need to explore the relationship between "fit" of treatment methods and the individual chronic pain patient.
6. An individual's outlook on life can play a role, albeit a moderate one, in success with pain management.

DISCUSSION

This discussion of the conclusions drawn will begin with the initial introductory statement - chronic pain plays no favorites. The literature demonstrated, and this study confirms, that chronic pain is experienced by all ages,

sexes, economic and educational levels, and marital structures of society. In the words of one pain sufferer,

"After a few years, persons with pain do not fear death; what they fear is living. Some even envy patients with terminal cancer because they at least will die. A longer life only means more pain and more destruction."  
(Eland, 1978, P.431)

While this was stated fourteen years ago, a participant in the current study verbalized almost the same words and sentiments. Freedom from pain is a daily, sometimes even hourly, quest. Such freedom may come for some through the utilization of many differing techniques. For many, these self or other applied techniques bring very little or no relief from the prison of chronic pain.

Coping behaviors/treatment methods are strategies engaged in by a chronic pain sufferer in order to lessen the pain. There are numerous studies which describe coping behaviors/treatment strategies that are recommended and used in the field of chronic pain (see Appendix A). Of these studies, the majority involved the use of induced pain in subjects in comparison to using subjects experiencing current ongoing pain (Scott & Barber, 1977; Spanos, et al, 1981; Cohen, et al, 1983; McCaul & Malott, 1984; Chaves & Brown, 1987; Reesor & Craig, 1988). The use of induced pain could make the interpretation of effectiveness of treatment strategies questionable. Weisenberg, as early as 1977,

questioned this very concept. A great many strategies are applied to chronic pain sufferers, and while they may be viable for some individuals, studies report on chronic pain patients having only limited, or no, success from the use of these techniques. Numerous studies have dealt with coping skills of chronic pain patients in general; however, what has not been focused on is the situation specific cognitive (thinking), affective (feeling) and psychomotor (acting) domains of the individual chronic pain patient. Also, what does not appear to have been done, and which the Treatment Method Rating Scale (TMRS) (see Appendix G) undertook to do, was to investigate the diversity of individual's perception of effectiveness of specific treatment methods in their pain management. It was proposed in earlier investigations that specific treatment methods could play an important role in determining successful outcomes in pain management (Ahrens & Deffner, 1986; Julkunen, et al, 1988). If individual differences were related to differential methods, it could provide more effective coping/treatment strategies for specific patients. As Weisenberg (1977) declared, "When using any strategy it must fit the context as well as the person involved."(P.1033). However, the results of this component of the present study were inconclusive. There was no relationship between the individuals behavior profiles (TFA patterns) and the methods chosen to deal with their

pain. It is possible that this was due to: 1) the small sample size used, 2) the structure of the Treatment Method Rating Scale, 3) a reflection of the reality of how treatment methods were applied randomly, or 4) the length of time participants have been in pain and their use of multiple methods.

Corresponding with earlier investigations, it was revealed that thinking and acting methods were used to a greater degree than feeling methods, even though a good number of participants described themselves on the initial TFA Clinical Interview as having feeling domains of behavior. It is possible that when asked to choose a domain for their pain situation participants picked feeling because they were locked into pain as a feeling, and were not aware of the other domains and their use of them. When presented with the opportunity to look at and rate treatment methods, participants demonstrated that they can, and do, use thinking and acting methods.

The literature suggests that cognitive (thinking) methods are the most used, and are considered by the treatment personnel administering them, to be the most effective (Scott & Barber, 1977; Spanos, et al, 1981; McCaul & Malott, 1984). Results with this particular sample differ. Psychomotor (acting) methods were employed by a slightly greater number of participants, and were used the most fre-

quently. Of these methods medication was used the most, followed by exercise and relaxation techniques. This suggests that while individuals are using multiple methods in their attempt to relieve pain, medication remains the strongest constant in pain management for the participants. This may be because, as Kongstvedt (1987) stated,

"...pain patients often view their problems in purely physical terms, rejecting psychological explanations of their symptoms. They are likely, therefore, to approach any non-medical therapy with caution."(P.539)

The prevalence of medication was noteworthy as many treatment approaches and treatment programs have the goal of decreasing, even terminating, medication consumption (Cohen, et al, 1983; Linton, 1986; Fordyce, 1990). It could be that pain medication offers the fastest and most long-lasting relief. It has also been recommended, by previously cited researchers, that the potential of cognitive strategies for clinical pain yet remains to be determined; also, that additional research is warranted in order to evaluate the utility of cognitive coping skills training as an adjunct to other psychological and physical interventions in treating chronic pain (Fernandez, 1986; Fernandez & Turk, 1989).

Studies have addressed the feasibility of using what is termed "cognitive-behavioral" approaches. In essence, an integration of cognitive and psychomotor techniques (Linssen & Zitman, 1984; Trifiletti, 1984; Holzman, et al, 1986;



Varni, et al, 1986; Puder, 1988; Skinner, et al, 1990). The greater use of these methods by the participants in the current study could lend support to this concept. As Turner & Romano (1990) stated,

"The rationale for applying cognitive-behavioral treatment strategies to both acute and chronic pain problems is that learning new cognitive and behavioral responses to pain and stress can give the individual a sense of control over pain and decrease negative emotions, thoughts, and judgments related to the pain; this, in turn, may reduce pain, suffering, and pain behavior."  
(P.171).

The integration of these two methods could prove effective for assisting in control of chronic pain.

Discussion of feelings and feeling treatment methods are notable by their absence in the literature on chronic pain. As stated earlier, feeling methods were utilized by fewer chronic pain participants, and used with relatively low frequency. Of these methods, discussion of fatigue, anxiety and depression with friends and family were utilized the most, yet perceived as having the lowest effectiveness. This relates to the sentiments expressed in the TFA Clinical Interview by a number of participants - "I used to do it a lot, but I think that people get tired of hearing about my pain and my feelings about it, so why bother. I just get more frustrated and it doesn't help.". Jacox (1979) discussed an almost identical response given by a number of chronic pain patients she was working with. Of interest was

the finding that communication with a physical therapist and counseling were perceived as the most effective of the feeling methods, but were the least frequently used. This corresponds to the earlier statement of Kongstvedt concerning individuals cautious approach to any therapy that is non-medical. Or, as expressed by one participant, "It was good for a while, but then it's like counselors think it's all in your head, they don't understand. I got tired of trying to work with someone who doesn't know where I'm coming from or what I'm going through.". Such a perception leads to a disharmonious counseling relationship, and an early termination of psychotherapy. This demonstrates the need for further counselor training in chronic pain concepts, as well as in ways to be focused in the behavioral domain of the chronic pain patient. Counselors can play a key role in assisting chronic pain patients to learn about, incorporate, and use coping skills at the appropriate time and in the appropriate manner for that individual to achieve a successful outcome of pain management. It is important for the counselor, and any other treatment personnel, to understand the chronic pain patient and to be aware of their own behavioral orientation. More importantly is the need for education concerning the evolution of chronic pain and all the implications that accompany it. Bonica (1990) stated,

"The predominant concern with anatomic and physiologic research on pain, consequent to the widespread assumption that pain was a purely sensory experience, caused emotional and psychologic factors to be relegated to secondary roles or to be considered byproducts of the sensation. These and other factors discouraged experimental and clinical psychologists and behavioral scientists from becoming involved in pain research." (P.12)

He also put forth a call for a marked increase in efforts to educate and train students, house officers, physicians and other health and helping professionals in order to improve the care of people suffering from chronic pain. Such a need has been recognized and supported for quite a period of time by a number of researchers in the field of chronic pain (Trifiletti, 1984; von Baeyer, et al, 1984; Pilowsky, 1986; Erickson, 1988; Baquie, 1989; Hanson & Gerber, 1990).

Early attempts to bring about this form of education was undertaken with the development in 1974 of the International Association for the Study of Pain (IASP). This organization was formed with the purpose of developing a cohort of medical, clinicians and academicians to define the field of pain management. As a result, literature was produced, understanding of pain was better, and treatment and intervention models followed. In response to a need for an even more accurate understanding, as well as to protect recipients of pain management services, the American Academy of Pain Management (AAPM) was established in 1988. This

serves the purpose of coordinating continuing educational opportunities for practitioners. However, to date no formal training (with the exception of Anesthesiology) program dealing with pain management has been instituted. Nor is there any emphasis on pain management in many higher education programs. Such training would provide the means for the helping professional to understand and work with the individual to gain control of the pain, as well as regain control of his/her life.

One of the main points brought out by Turner & Romano (1990) was the issue of the individual gaining a sense of control over the pain, as well as negative emotions, thoughts and judgments concomitant with their pain. This coincides with a component examined in the current study, personal outlook. A moderate relationship was revealed between personal outlook and success in pain management. Almost all the self-proclaimed pessimists were not successful, while optimists were equally likely to be successful as not. This closely parallels the findings of a number of earlier investigations. It has been asked why it is that some individuals "rise above" pain while others "succumb" to the demoralization that can accompany chronic, intractable pain. Turk & Holzman (1986) believed that optimism could be a force which combats the insidious effects of the demoralization. Further investigation of the literature documented

that one component which could have a bearing on perception of treatment method effectiveness/successful outcome is an individual's general outlook on life and life situations. Personal outlook can contribute to success in pain management, with optimism contributing to success and pessimism contributing to non-success. Locus of control, self-efficacy perceptions, expectations, and beliefs are all terms that refer to a chronic pain patients outlook in pain management. Researchers confirm that outlook does contribute to increased sense of mastery of pain (Worthington, 1978; Wise & Rosenthal, 1982; Ciccone & Grzesiak, 1984; Reagles, 1984; Kreitler, et al, 1987; Philips, 1987; Weiner, 1991; Williams & Kinner, 1991).

Outlook, when combined with the utilization of treatment methods compatible to the individuals behavior style, could be very effective for the chronic pain patient. As noted earlier, there was no apparent relationship between chronic pain patient's behavior profiles (TFA patterns) and type of treatment methods. In attempting to do an analysis it was revealed that individual's TFA patterns did not "match" the methods being used to deal with their pain. For example, an individual who had a T-F (thinking-feeling) profile used predominantly acting methods, while another individual who had a F-A (feeling-acting) profile used all three methods equally (see Appendix Q). This may be

explained by the fact that to date treatment methods have been applied in the same manner to every chronic pain patient. Each pain management program or treatment provider has a set agenda which is followed with each person. There does not appear to have been any research undertaken to attempt to determine an individual's behavior pattern, which could then lead to the application of treatment methods that would match that person's perspective. As Julkunen, et al, (1988) stated,

"...there are probably subgroups which react in different ways to treatment. The problem is common to all new therapeutic methods: to identify the appropriate patient population for the specific treatment method, i.e., those patients who are most likely to benefit from a particular kind of treatment."(P.174)

It is possible that the TFA Clinical Interview and the Hutchins Behavior Inventory (HBI) could provide the means for doing this.

The HBI, which is the more reliable assessment instrument, could clearly identify the behavior profile of both the chronic pain patient and the helping professional. Consequently, both could then work more effectively toward a common goal - that of the reduction in, or freedom from, pain. When the profile of the chronic pain patient is known, then treatment methods which "match" could be applied. Further, and more widespread, use of this instrument could demonstrate its viability.

One manner in which the TFA Clinical Interview could be used is with those chronic pain patients considered to be alexithymic. An individual exhibiting this behavior is said to have "...an inability to find appropriate words for mood or the lack of awareness of the basis of emotion."(Papciak, et al, 1987,P.347). Such patients have a tendency to present themselves in a normal psychological light. As Blumer & Heilbronn (1981) reported,

"...these patients displayed alexithymic characteristics in that their presentation was marked with an inability to verbalize feelings, and attempts to present a 'super-normal' picture of mental health."(P.400)

The TFA Clinical Interview, when utilized by this researcher, provided the means by which each participant could discuss their experience of pain, and their thoughts, feelings and actions in regard to their pain.

It has been postulated by the aforementioned researchers, among others, that alexithymic patients present major difficulties for those attempting to treat them with psychoanalytic psychotherapy. This particular type of psychotherapy, since it is such a lengthy and, for some, frightening process, could keep the chronic pain patient from such disclosures. Also, the individual's cultural background or developmental experiences have caused them to hide their feelings and demonstrate the need to be "strong". What must be considered is that when individuals live with

chronic pain, they become stoic in terms of verbalizations and outlook in order not to be considered a "complainer", a "cry baby", or looking for sympathy. As Wise, et al, (1990) proposed, "...alexithymia may be a state reaction to the effects of serious physical illness in that both incapacitation and suffering due to an illness, as well as to depression, augment alexithymia."(P.287).

The concept of alexithymia as a defensive role in a state reaction, or as a protective factor against seriousness of an illness situation and its emotional significance is very credible. Freyburger, et al, (1985) very appropriately stated it, "...namely, a defense mechanism which is built up by the patient who is confronted with the experience of his impairment."(P.79). They also propose that supportive psychotherapy, while it may last for months to years, can be beneficial to such patients. One problem proposed, however, is that "...only a relatively small number of professional psychotherapists are sufficiently motivated concerning these patients."(P.74). It would seem reasonable that if a therapist had an instrument which not only revealed the patient's profile, but provided the opportunity to speak about their pain situation, that working with the alexithymic individual would not be so fraught with frustration.



The TFA Clinical Interview use the TFA triad which is a non-threatening instrument, unlike the MMPI, the Rorschach and the Toronto Alexithymic Scale (Acklin & Bernat, 1987; Acklin & Alexander, 1988; Loiselle & Dawson, 1988; Hendryx, et al, 1991). As such it encourages and enables individuals to speak about their pain situation, as well as their thoughts, feelings, and actions in that situation. If administered to patients at their initial entry into the treatment program, it provides immediate access to the individuals perspective. Freyburger, et al, (1985) had proposed this,

"We regard it as essential that the psychotherapeutic interventions begin immediately following the patient's admission ... . Thus the psychotherapeutic motivation of the patients may be awoken at an early state of treatment."(P.77)

It would appear that both the TFA Clinical Interview and the HBI could serve this purpose and, therefore, appear to have a viable place in the assessment process for chronic pain patients and the application of effective treatment methods.

It was revealed that there were no significant differences between any of the demographic characteristics and type of treatment method used. This corresponds to the findings of a number of previous investigations that examined these same variables (Weisenberg, 1977; Anderson & Rehm, 1984; Kerns & Turk, 1984; Moore & Chaney, 1985;

Kinner, 1991). While there were no significant differences revealed, it was interesting to note some of the patterns. Although females and males did not differ in the total number of treatment methods they used, females used the feeling methods to a greater degree than males did. This could be because females are considered to be more emotive and expressive than males, and thus would be more willing to speak about and/or demonstrate the experiences of their pain. Papciak, et al, (1987) reported that pain ratings of worst severity was correlated with the sex of the subject, with females reporting greater severity. This was confirmed by later investigations (Swiller, 1988; Kinder & Curtis, 1990). Another interesting, but not surprising, finding was that males used acting methods to a much greater degree than thinking or feeling methods. This could be accounted for in that society teaches and/or conditions males to the ideas and behaviors of being strong, unemotional and being the more active, aggressive gender (Swiller, 1988; Sarason & Sarason, 1989; Kinder & Curtiss, 1990; Ornstein & Carstensen, 1991; Schnarch, 1991; Papalia & Olds, 1992). It may be that this conditioning is being carried out in their pain management behaviors as well.

Although there were only two individuals in the widowed group, they seemed to use feeling and acting methods to a greater degree than any of the other marital classificat-

ions. Having worked with individuals experiencing terminal illness and/or sudden death in their families has demonstrated that individuals who are widowed are in an emotional state, and yet must continue to function in daily living. These emotional states can last for lengthy periods of time, yet almost from the very beginning they are expected and "encouraged" to "pull themselves together and get on with living" (Hafer, 1981; Slagle, 1982). The opportunity to discuss their emotions in regard to their pain situation with family, friends, doctors or therapists enables them to emote their pain experiences. Also, the knowledge that they do not have a spouse to help them creates the situation of having to "do" for themselves. This same principle would transfer to pain management behaviors.

Although the investigation undertaken here revealed no significant relationships throughout, one very strong fact did arise continuously - the need for a better fit of the treatment method to the individual chronic pain patient. Also, that further investigation of the effectiveness of intervention strategies from the perspective of the chronic pain patient needs to be undertaken. There is a marked lack of information from their point of view, while literature addressing assessment of treatment effectiveness from the helping professionals perception abounds (Hartman &

Ainsworth, 1980; Kabat-Zinn, et al, 1985; Cook, et al, 1988; Subramanian & Rose, 1988; Maruta, et al, 1990).

What needs to be done is to have the chronic pain patient rate the effectiveness of a specific treatment method(s) in terms of how that individual perceives successful outcome in pain management. Zardowski & Philips (1986) stated,

"... a chronic sufferer's individual and differentiated response to his pain needs to be classified, so that a more focused approach aimed at the most salient aspect of his subjective and behavioral response to his pain may be taken."(P.371)

Appropriate treatment strategies for each individual must be identified. As Hanson & Gerber (1990) so aptly stated,

"One of the most important goals in chronic pain research and practice is to identify the most appropriate interventions for particular patients. In other words, treatment should match the needs of the patient rather than the patient be required to fit into a particular treatment."(P.13)

This researcher wholeheartedly concurs with this perspective, and believes that a method for doing this can be formulated. Perhaps one day such a practice will evolve, and thus will chronic pain sufferers be enabled to feel, and believe, that they truly have choices and involvement in the management of their pain.

What must be considered, however, both in regard to this study and to future investigations is that assessment of treatment methods and classification into Thinking,

Feeling, and Acting areas is open to debate. While the TFA classification based on content analysis of the clinical interviews was not used in this study, it should be noted that such classifications differed from the HBI triad. Also, that classification of interviews into Thinking, Feeling, and Acting components is open to debate. Using other criteria a different researcher could arrive at various ways of assessing and classifying interview components.

#### RECOMMENDATIONS

The conclusions arrived at resulted in the following recommendations for both future research and clinical trial.

##### Research

1. Formulate a more focused approach to an individual's subjective experience of pain and behavioral responses to pain.
2. Further exploratory testing needs to be done with the TFA Clinical Interview and the Hutchins Behavior Inventory (HBI) on individuals experiencing differing chronic pain conditions.
3. Further research needs to be undertaken with chronic pain patients to attempt to determine whether specific treatment methods play a role in successful outcomes.

4. A treatment method rating scale needs to be devised that the chronic pain patient can use to rate effectiveness of particular treatment methods.
5. Undertake further research to assess and evaluate the utility of each coping skill category (cognitive, affective, psychomotor).

#### Proposals for clinical trial

All personnel who deal with chronic pain patients should work integratively for each person. To do this each must be aware of the other's area of specialization, and all must work toward the same outcome.

Given the findings at this time that there appears to be a "potpourri" of treatment methods being applied, in part because the professions do not know which ones will work, clinicians could:

1. Take a systematic approach to looking at what may work best for the chronic pain patient. In doing this professionals need to pay more attention to what the individual is saying.

In order to do this they would need to:

2. Utilize the TFA Clinical Interview and the Hutchins Behavior Inventory (HBI) with

individuals experiencing differing chronic pain conditions, as well as treatment personnel to obtain a behavior profile (TFA pattern).

3. Assess the behavior profile (TFA pattern) of a chronic pain patient upon first entering a pain treatment program.
4. Assess the outcome of the treatment methods during, and at the end of, the treatment program, and again at three month intervals for a year to assess long term outcome/effectiveness.
5. Counselors use the chronic pain patients profile to determine helping strategies for working more effectively for/with the individual.

To test the efficacy of such procedures they need to:

6. Provide a scale for the chronic pain patient, as well as the treatment provider, to rate the effectiveness of the treatment methods.

The implications of these recommendations speak to the need for: 1) listening to the chronic pain patient, 2) understanding what the individual is experiencing mentally,

emotionally and physically 3) a willingness to walk the path with and assist the chronic pain patient in the most effective manner possible, and 4) a willingness to work cooperatively and integratively with other treatment personnel professionals. To do this counselors/treatment personnel must: 1) obtain more education regarding chronic pain and assessment instruments, 2) be knowledgeable of chronic pain and all the implications that accompany it, 3) be aware of their own behavioral/therapeutic orientation, 4) be knowledgeable of the multitude of treatment methods and how to apply them in the management of chronic pain, and 5) respect the chronic pain patient as a person.

Chronic pain is such a personal, private hell for each individual experiencing it. Research in the field in treatment methods needs to continue from many different perspectives, but mostly from the perspective of the chronic pain sufferer.

As a chronic pain sufferer, I have traveled many diverse paths in alleviating it and in coming to terms with the everyday constancy of the pain. I can only believe that what I have written below expresses my perspective about the pain and the treatment methods.



You reached out your hand and said: I know that you're hurting, what can I do, how can I help? You just did, you reached out your hand and said I care.

APPENDIX A.

**THINKING, FEELING AND ACTING STRATEGIES CITED IN THE LITERATURE**

STUDY	AUTHOR(S)	YEAR	T	F	A	JOURNAL	TFA
Mastery, Stress & Coping in Marriage in Chronic Pain Patients	Elliott, Trief & Stein	1986	Advice seeking Negotiation Selective ignoring	Depression	Passive forbearance	Jour. of Behavioral Medicine, 9(6), 549-68	*
Chronic Pain: The Case for Prevention (article)	Linton, S.	1987	Treatment and advice concerning activity Teach people how to recognize & cope	Fatigue	Analgesics given Rest & activity limits Exercises Relaxation Gymnastics	Behavior Research Therapy, 23(4), 313-17	*
Depression, Illness, Beliefs & Severity of Illness	Wise & Rosenthal	1982	Health beliefs		Health behavior	Jour. of Psychosomatic Research, 26(2), 247-53	
Group Hypnotherapy As An Active Control Strategy in Chronic Pain	Toomey & Sanders	1983	Coping images Fantasy (alter thinking and behavior)		Hypnosis-problem solving & sensory imaging	American Journal of Clinical Hypnosis, 26(1) 20-25	
Pain and Pain Control (induced pain)	Weisenberg, H.	1977	Distraction Attention Suggestion Re-interpretation of pain Pain perception Reversal - vicarious		Anxiety reduction Desensitization Surgery Stimulation procedures Control of Pain Modeling	Psychological Bulletin, 84(5), 1008-1044	
Cognitive Control of Pain: Effects of Multiple Cognitive Strategies	Scott & Barber	1977	Distraction Imagery Dissociation			The Psychological Record, 2, 373-83	
The Effects of Imagery Content, Choice of Imagery Content & Self-verbalization on the Self-Control of Pain	Worthington, E.L.	1978	Imagery-pleasant vs neutral Self-verbalization	Interpersonal anxiety Anger	Choice of imagery - choice vs yoked	Cognitive Therapy & Research, 2(3), 225-240	*
Suffering for Science: The Effects of Implicit Social Demands on Response to Experimentally Induced Pain	Spanos, Hodgins, Stem & Bynum	1984	Thoughts Focus on Exaggerate Catastrophizing	"This is awful"	Give permission to cope through statements	Jour. of Personality & Social Psychology, 46(5), 1162-72	*

## APPENDIX A. (cont'd.)

STUDY	AUTHOR(S)	YEAR	T	F	A	JOURNAL	TFA
Pain Behavior & Pain Coping Strategies in Low Back Pain & Myofascial Pain Dysfunction Syndrome Patients	Keefe & Dolan	1986	Praying Diverting attention Reinter- pretation Coping self- state- ments	Depression Anxiety Hostility	Activity - walking standing sitting	Pain, 24, 49- 56	•
(patients in pain) Distraction & Coping With Pain (article-review of techniques used by others)	McCaull & Malott	1984	Distraction Controlled process- ing			Psychological Bulletin, 95(3)	
The Effects of Suggestion & Distraction on Coping Ideation & Reported Pain (induced pain)	Spanos, Stam &	1981	Distraction Suggestion			Jour. of Mental Imagery, 5, 75-90	
Cognitive Strategies, Expectancy, & Coping Style in the Control of Pain (induced pain)	Bears & Karoly	1979	Rational thinking Compatible imagery Task-irre- levant cognition incompat- ible imagery			Jour. of Consult- ing and Clinical Psychology, 47(1), 179-80	
Talking Yourself Out of Pain: The Importance of Believing That You Can (induced pain)	Girodo & Wood	1979	Self-talk		Self-talk	Cognitive Therapy & Research, 3(1), 23-33	
New Directions in the Understanding & Management of Pain (article-review of material)	Chapman, C.R.	1984	Hypnosis Controlled imagery Distraction Meditation		Rest Activity Rewards	Social Science Medi- cine, 19(12), 1261- 77	

APPENDIX B. PARTICIPANT CONSENT FORM

GERALDINE E. VINGELIS, M.A.  
 VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY  
 BLACKSBURG, VIRGINIA 24061-0302

CONSENT FORM

I do hereby willingly consent to be a participant in the Doctoral research study to be conducted by Mrs. Geraldine E. Vingelis, a Doctoral student in Counselor Education at Virginia Polytechnic Institute and State University located at the Graduate Center in Falls Church, Virginia.

I understand that I will participate in a one-hour face-to-face initial interview, at which time the complete study and survey instruments will be explained to me in detail. Also, that should I agree to continue in this study that a TFA Clinical Interview (using the TFA Triangle), which will be audiotaped, will be administered. It is also understood that this study will require me to complete the following assessment instruments: the Hutchins Behavior Inventory (HBI), a demographic survey developed by Mrs. Vingelis, a Treatment Method Rating Scale developed by Mrs. Vingelis, and the Seligman Optimism/Pessimism Scale.

I also understand, and consent to, the information which is being collected being analyzed. This information will be shared with Mrs. Vingelis' advisor, Dr. David Hutchins, and other members of her Doctoral Committee - Dr. Gabriella Belli, Dr. Steven Brown, Dr. Linda Little and Dr. Walter Moretz. No information which could specifically identify me in any way will be released, and anonymity will be maintained. Every precaution necessary to maintain confidentiality will be taken and adhered to.

It is understood that should I wish to be informed of the outcome of this study that I will be given the opportunity to do so.

---

 PARTICIPANT

---

 GERALDINE E. VINGELIS, M.A.  
 DOCTORAL STUDENT, VPISU

---

 DATE

APPENDIX C. LETTER TO PHYSICIANS

VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY  
BLACKSBURG, VIRGINIA 24061-0302

January 1992

Dear Physician:

I am a Doctoral student in Counselor Education and Supervision at the Virginia Polytechnic Institute and State University Graduate Center in Falls Church, Virginia. At the present time I am preparing to begin my research study to meet the requirements for the Dissertation portion of my program. I am also a Licensed Professional Counselor in Fairfax, Virginia.

The Dissertation I am working on involves assessing pain management strategies utilizing a model known as the TFA model, developed by Dr. David Hutchins of VPISU. I became interested in working in the area of chronic pain due to my own experiences as a chronic pain patient. What will be involved is a number of short self-report instruments: a TFA Clinical Interview, the Hutchins Behavior Inventory, a demographic survey, a treatment method rating scale, and an Optimism/Pessimism scale.

Through the use of these instruments I will be assessing the relative frequency of treatment methods being used, and the overall effectiveness of them as perceived by the patient. Also, the information provided will help to determine whether or not specific treatment methods are effective for specific clients who have particular behavior patterns. This information may prove beneficial to chronic pain patients in that the treatment mode could then be adapted to the individual, enhancing chances for more successful pain management outcomes.

I am presently enlisting participants for my research study. It is my understanding that your patient has been in a pain management program, and thus may be a potential subject for my study. Your patient will be contacted in regard to availability and willingness to participate in this study, unless you have any objections to your patient being included. I will assume that this is agreeable with you unless you contact me.

APPENDIC C (cont'd.)

Should you require any further information from me please feel free to contact me at my home (703-425-8917 or my office 703-352-1244. I would like to take this opportunity to thank you in advance for any assistance you can provide me in my Doctoral work.

Very truly yours,

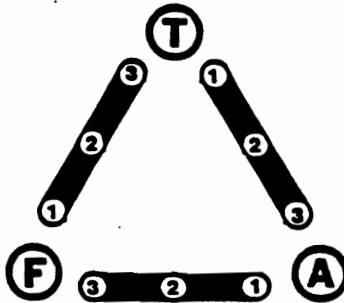
GERALDINE E. VINGELIS, M.A., LPC  
DOCTORAL CANDIDATE

**APPENDIX D. TFA CLINICAL INTERVIEW FORMAT**

**TFA Interview Format**

Situation \_\_\_\_\_

1. Is your behavior more Thinking, more Feeling, or about in the Middle?
2. Is your behavior more Feeling, more Acting, or about in the Middle?
3. Is your behavior more Acting, more Thinking, or about in the Middle?
4. Connect points on each side of the TFA Triangle to form a TFA Triad (closed inner triangle)
5. Elaborate on specific aspects of your behavior that led you to respond to 1, 2, or 3 as you did.



6. Describe what the TFA Triad means about your behavior in this specific situation.
7. What are the payoffs (strengths or positive aspects) of your behavior in this situation?
8. What are the tradeoffs (limitations or negative aspects) of your behavior in this situation?
9. (For the helper) What are the implications of this person's behavior for the helping relationship & strategies?

APPENDIX E. HUTCHINS BEHAVIOR INVENTORY (HBI)



Name: \_\_\_\_\_  
**HUTCHINS BEHAVIOR INVENTORY**

©1984, David E. Hutchins, Ph. D.

Please print your name (above) and fill in items in the upper right part of this sheet. Then read the instructions which follow. Think of your behavior in a specific situation and write the situation on this line:

Picture yourself in this specific situation as you complete the items below. In each item, first decide which of the paired words best describes your behavior in the situation above. Next focus only on the word you selected, decide how characteristic this word is of your behavior in the situation described above and mark (1), (2), (3), or (4):

- (1) Somewhat characteristic
- (2) Moderately characteristic
- (3) Very characteristic

EXAMPLE:  careful  (2)  (1)  (3)  (4)  assertive

This response indicates that in the specific situation the person was more assertive than careful and that the word (assertive) was (2) Moderately characteristic of his or her behavior in that situation. There are 75 slightly different pairs of words. Work quickly (5 to 7 seconds per item). Do not be concerned about overlap or duplication of your responses. There are no wrong answers. Remember to focus on the specific situation.

INCORRECT MARKS



CORRECT MARK



SOCIAL SECURITY NUMBER										AGE		CODES			
(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)
(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)

HIGHEST LEVEL OF EDUCATION

- Elementary School
- High School
- High School Graduate
- Some College Work
- BA/BS
- Master's
- Doctorate

SEX  Female  Male

SOMEWHAT MODERATELY VERY					SOMEWHAT MODERATELY VERY
<input type="radio"/>	irritating	(1)	(2)	(3)	concerned
<input type="radio"/>	emotional	(1)	(2)	(3)	contemplative
<input type="radio"/>	spontaneous	(1)	(2)	(3)	rational
<input type="radio"/>	analytical	(1)	(2)	(3)	sensitive
<input type="radio"/>	doing	(1)	(2)	(3)	concerned
<input type="radio"/>	caring	(1)	(2)	(3)	contemplative
<input type="radio"/>	assertive	(1)	(2)	(3)	concerned
<input type="radio"/>	rational	(1)	(2)	(3)	decisive
<input type="radio"/>	analytical	(1)	(2)	(3)	concerned
<input type="radio"/>	emotional	(1)	(2)	(3)	decisive
<input type="radio"/>	doing	(1)	(2)	(3)	contemplative
<input type="radio"/>	compassionate	(1)	(2)	(3)	rational
<input type="radio"/>	caring	(1)	(2)	(3)	curious
<input type="radio"/>	spontaneous	(1)	(2)	(3)	concerned
<input type="radio"/>	caring	(1)	(2)	(3)	logical
<input type="radio"/>	doing	(1)	(2)	(3)	rational
<input type="radio"/>	decisive	(1)	(2)	(3)	contemplative
<input type="radio"/>	emotional	(1)	(2)	(3)	irritating
<input type="radio"/>	irritating	(1)	(2)	(3)	curious
<input type="radio"/>	spontaneous	(1)	(2)	(3)	caring
<input type="radio"/>	sensitive	(1)	(2)	(3)	contemplative
<input type="radio"/>	spontaneous	(1)	(2)	(3)	emotional
<input type="radio"/>	irritating	(1)	(2)	(3)	analytical
<input type="radio"/>	compassionate	(1)	(2)	(3)	doing
<input type="radio"/>	assertive	(1)	(2)	(3)	caring
<input type="radio"/>	rational	(1)	(2)	(3)	assertive
<input type="radio"/>	logical	(1)	(2)	(3)	sensitive
<input type="radio"/>	concerned	(1)	(2)	(3)	contemplative
<input type="radio"/>	compassionate	(1)	(2)	(3)	analytical
<input type="radio"/>	assertive	(1)	(2)	(3)	contemplative
<input type="radio"/>	irritating	(1)	(2)	(3)	sensitive
<input type="radio"/>	assertive	(1)	(2)	(3)	emotional
<input type="radio"/>	emotional	(1)	(2)	(3)	analytical
<input type="radio"/>	analytical	(1)	(2)	(3)	assertive
<input type="radio"/>	compassionate	(1)	(2)	(3)	curious
<input type="radio"/>	assertive	(1)	(2)	(3)	sensitive
<input type="radio"/>	emotional	(1)	(2)	(3)	rational
<input type="radio"/>	compassionate	(1)	(2)	(3)	irritating

SOMEWHAT MODERATELY VERY					SOMEWHAT MODERATELY VERY
<input type="radio"/>	decisive	(1)	(2)	(3)	curious
<input type="radio"/>	caring	(1)	(2)	(3)	rational
<input type="radio"/>	analytical	(1)	(2)	(3)	decisive
<input type="radio"/>	spontaneous	(1)	(2)	(3)	contemplative
<input type="radio"/>	compassionate	(1)	(2)	(3)	decisive
<input type="radio"/>	sensitive	(1)	(2)	(3)	doing
<input type="radio"/>	logical	(1)	(2)	(3)	compassionate
<input type="radio"/>	spontaneous	(1)	(2)	(3)	sensitive
<input type="radio"/>	analytical	(1)	(2)	(3)	caring
<input type="radio"/>	rational	(1)	(2)	(3)	irritating
<input type="radio"/>	spontaneous	(1)	(2)	(3)	analytical
<input type="radio"/>	curious	(1)	(2)	(3)	sensitive
<input type="radio"/>	logical	(1)	(2)	(3)	concerned
<input type="radio"/>	doing	(1)	(2)	(3)	caring
<input type="radio"/>	concerned	(1)	(2)	(3)	curious
<input type="radio"/>	compassionate	(1)	(2)	(3)	contemplative
<input type="radio"/>	logical	(1)	(2)	(3)	irritating
<input type="radio"/>	concerned	(1)	(2)	(3)	rational
<input type="radio"/>	logical	(1)	(2)	(3)	emotional
<input type="radio"/>	irritating	(1)	(2)	(3)	contemplative
<input type="radio"/>	decisive	(1)	(2)	(3)	concerned
<input type="radio"/>	sensitive	(1)	(2)	(3)	decisive
<input type="radio"/>	spontaneous	(1)	(2)	(3)	compassionate
<input type="radio"/>	logical	(1)	(2)	(3)	assertive
<input type="radio"/>	spontaneous	(1)	(2)	(3)	curious
<input type="radio"/>	decisive	(1)	(2)	(3)	caring
<input type="radio"/>	doing	(1)	(2)	(3)	logical
<input type="radio"/>	emotional	(1)	(2)	(3)	doing
<input type="radio"/>	decisive	(1)	(2)	(3)	logical
<input type="radio"/>	curious	(1)	(2)	(3)	assertive
<input type="radio"/>	analytical	(1)	(2)	(3)	doing
<input type="radio"/>	spontaneous	(1)	(2)	(3)	logical
<input type="radio"/>	emotional	(1)	(2)	(3)	curious
<input type="radio"/>	compassionate	(1)	(2)	(3)	assertive
<input type="radio"/>	irritating	(1)	(2)	(3)	caring
<input type="radio"/>	doing	(1)	(2)	(3)	curious
<input type="radio"/>	rational	(1)	(2)	(3)	sensitive



APPENDIX F. DEMOGRAPHIC AND TREATMENT METHOD RATING SCALE SURVEY

The information that you provide will be of great importance in this study of coping strategies/treatment methods used by chronic pain patients in pain management.

In the first part of this study important background information is needed. Please read each statement carefully and answer it the best that you can. The second part of this study is a listing of the coping strategies/treatment methods which you will rate according to your perception of their effectiveness, as well as the frequency of use by you. Again, please rate each one, according to the scale provided, the best that you can.

Thank you for your participation in this study. If you are interested in the results, please indicate by placing your signature at the end of the survey.

APPENDIX F. (cont'd.)

NAME: \_\_\_\_\_  
                     Last                                    First                                    M.I.

ADDRESS: \_\_\_\_\_  
                     Number                                    Street

                    City                                    State                                    Zip Code

TELEPHONE: \_\_\_\_\_  
                                     Home                                    Work

AGE IN YEARS: \_\_\_\_\_ DATE OF BIRTH: \_\_\_\_\_

SEX: \_\_\_\_\_ FEMALE \_\_\_\_\_ Male

EDUCATION: \_\_\_ 9th grade or less \_\_\_ 1-12 grade \_\_\_ High School Grad.  
                     \_\_\_ College (Number of years) \_\_\_ Graduate/Professional  
   Training

MARITAL STATUS: \_\_\_ Single/Never Married \_\_\_ Separated/Divorced  
                                     \_\_\_ Married \_\_\_ Widowed

FAMILY INCOME: \_\_\_ Less than \$10,000 \_\_\_ \$10,000-19,999  
                                     \_\_\_ \$20,000-34,999 \_\_\_ \$35,000 +

SPECIFIC BACK PAIN SYNDROME: \_\_\_\_\_  
 \_\_\_\_\_

HOW DID PAIN BEGIN: \_\_\_\_\_

IN WHAT YEAR DID PAIN FIRST START: \_\_\_\_\_

HOW OFTEN DOES PAIN OCCUR: \_\_\_ Constantly \_\_\_ Sporadic, every day  
                                     \_\_\_ Sporadic, weekly \_\_\_ About once a week \_\_\_ Few times a  
   month

ON A DAY YOU EXPERIENCE PAIN, HOW LONG DOES IT USUALLY LAST: \_\_\_\_\_  
 \_\_\_\_\_

DO YOU CURRENTLY TAKE MEDICATION/S FOR PAIN: \_\_\_ No \_\_\_ Yes

IF YES, PLEASE LIST ALL MEDICATIONS: \_\_\_\_\_  
 \_\_\_\_\_

ARE YOU UNDER THE CARE OF A PRIVATE PHYSICIAN: \_\_\_ No \_\_\_ Yes

DOES HE/SHE EXCLUSIVELY TREAT YOUR PAIN SYNDROME: \_\_\_ No \_\_\_ Yes

HAVE YOU EVER BEEN TREATED IN A PAIN MANAGEMENT PROGRAM/FACILITY:  
                     \_\_\_ No \_\_\_ Yes

APPENDIX F (cont'd.)

IF YES, WERE YOU TREATED ON AN INPATIENT OR OUTPATIENT BASIS:  
 \_\_\_\_\_ Inpatient      \_\_\_\_\_ Outpatient

HAVE YOU HAD SURGERY FOR YOUR PAIN SYNDROME:      \_\_\_\_\_ No      \_\_\_\_\_ Yes

IF YES, HOW MANY TIMES: \_\_\_\_\_

HAS THE PAIN INTERFERED WITH YOUR DAY-TO-DAY FUNCTIONING:  
 \_\_\_\_\_ No      \_\_\_\_\_ Yes

IF YES, TO WHAT EXTENT DOES IT INTERFERE WITH EACH OF THE FOLLOWING AREAS: (using a scale of 1, very little to 5, extremely; circle the one that applies)

	VERY LITTLE				EXTREMELY
RECREATIONAL	1	2	3	4	5
SLEEPING	1	2	3	4	5
EXERCISE	1	2	3	4	5
WALKING	1	2	3	4	5
DRIVING	1	2	3	4	5
SCHOOL	1	2	3	4	5
SOCIAL	1	2	3	4	5
WORK	1	2	3	4	5

If it interferes in other areas please list and rank according to the above scale: \_\_\_\_\_

-----  
 -----

WOULD YOU RATE YOUR PERCEPTION OF YOUR PAIN MANAGEMENT PROGRAM AS SUCCESSFUL OR UNSUCCESSFUL (with 1 being unsuccessful up to 5 being very successful; please circle the one that applies):

1                      2                      3                      4                      5

APPENDIX F. (cont'd.)

PLEASE DESCRIBE WHAT YOU CONSIDER TO BE "SUCCESSFUL" (i.e., return to work, freedom from pain, etc.): \_\_\_\_\_

---

---

DO YOU CONSIDER YOURSELF TO BE GENERALLY AN OPTIMISTIC OR A PESSIMISTIC PERSON (with 1 being pessimistic up to 7 being optimistic; please circle the one that applies):

1            2            3            4            5            6            7

Thank you for completing this portion of the survey. On the remaining pages you will find a rating scale of coping methods used in pain management. Please continue with the Treatment Method Rating Scale.

APPENDIX G. TREATMENT METHOD RATING SCALE

Below is a list of coping strategies/treatment methods used in pain management for chronic pain experiencers. Please read each treatment method carefully and do the following:

- A: Circle the number of the treatment method if you use(d) that method. If you did not use that method go on to the next item.
- B: If you used the treatment method indicate its effectiveness by circling a number on the scale from 1 - 7.
- C: Finally, indicate how frequently you use(d) the method by writing in the number of times and then indicating whether it is/was daily (D), weekly (W) or monthly (M).

FOR EXAMPLE:

A: <u>TREATMENT METHOD</u>	B: <u>EFFECTIVENESS</u>	C: <u>FREQUENCY OF USE</u>
		No. of D W M times
1. IMAGERY (guided, self-induced, etc.)	1 2 3 4 5 6 7	

In the above example the patient circled the Treatment Method, "IMAGERY" because he/she had used that with chronic back pain. Then (B) he/she circled #5 because he/she found it slightly more than average in its effectiveness. Finally, (C) this indicates that the patient uses/used this four (4) times per week.

APPENDIX G. (cont'd.)

	TREATMENT METHOD	EFFECTIVENESS							FREQUENCY OF USE			
		1	2	3	4	5	6	7	No. of times	D	W	M
1.	IMAGERY (guided, self-induced, etc.)	1	2	3	4	5	6	7				
2.	DISTRACTION	1	2	3	4	5	6	7				
3.	SELF-TALK (encouragement, affirmations, etc.)	1	2	3	4	5	6	7				
4.	RELAXATION TECHNIQUES (deep breathing, relax muscles, "special place/scene, etc.)	1	2	3	4	5	6	7				
5.	HYPNOSIS (with a therapist, self-hypnosis)	1	2	3	4	5	6	7				
6.	MEDICATION (pain relievers, anti-depressants, steroids, anti-inflammatories, etc.)	1	2	3	4	5	6	7				
7.	PHYSICAL THERAPY	1	2	3	4	5	6	7				
8.	SURGERY	1	2	3	4	5	6	7				
9.	NERVE BLOCKS (trigger points, lumbar sympathetic chain, epidural/spinal blocks)	1	2	3	4	5	6	7				
10.	EXERCISE (walking, swimming, stationary bicycling, etc.)	1	2	3	4	5	6	7				
11.	TRACTION	1	2	3	4	5	6	7				
12.	INTERPERSONAL COMMUNICATION WITH PHYSICIAN	1	2	3	4	5	6	7				
13.	INTERPERSONAL COMMUNICATION WITH PHYSICAL THERAPIST	1	2	3	4	5	6	7				

APPENDIX G. (cont'd.)

	<u>TREATMENT METHOD</u>	<u>EFFECTIVENESS</u>							<u>FREQUENCY OF USE</u>			
		1	2	3	4	5	6	7	No. of times	D	W	M
14.	COUNSELING/PSYCHOTHERAPY	1	2	3	4	5	6	7				
15.	DISCUSSION OF FATIGUE, ANXIETY, DEPRESSION, ETC. WITH FAMILY	1	2	3	4	5	6	7				
16.	DISCUSSION OF FATIGUE, ANXIETY, DEPRESSION, ETC. WITH FRIENDS	1	2	3	4	5	6	7				
17.	SPIRITUALITY (prayers, etc.)	1	2	3	4	5	6	7				
18.	BIOFEEDBACK	1	2	3	4	5	6	7				

Please list any other methods you are using/have used, and rate their effectiveness using the same 1 - 7 scale, and the frequency of use again indicating the number of times and whether it is daily, weekly, monthly:

	<u>TREATMENT METHOD</u>	<u>EFFECTIVENESS</u>							<u>FREQUENCY OF USE</u>			
		1	2	3	4	5	6	7	No. of times	D	W	M
19.		1	2	3	4	5	6	7				
20.		1	2	3	4	5	6	7				
21.		1	2	3	4	5	6	7				

APPENDIX H. SELIGMAN OPTIMISM/PESSIMISM SCALE

Take as much time as you need to answer each of the questions. On average the test takes about fifteen minutes. There are no right or wrong answers. Read the description of each situation and vividly imagine it happening to you. You probably have not experienced some of the situations, but it doesn't matter. Perhaps neither response will seem to fit; go ahead anyway and circle either A or B, choosing the cause likelier to apply to you. You may not like the way some of the responses sound, but don't choose what you think you should say or what would sound right to other people; choose the response you'd be likelier to have.

Circle only one response for each question.

1. The project you are in charge of is a great success.
  - A. I kept a close watch over everyone's work.
  - B. Everyone devoted a lot of time and energy to it.
2. You and your spouse (boyfriend/girlfriend) make up after a fight.
  - A. I forgave him/her.
  - B. I'm usually forgiving.
3. You get lost driving to a friend's house.
  - A. I missed a turn.
  - B. My friend gave me bad directions.
4. Your spouse (boyfriend/girlfriend) surprises you with a gift.
  - A. He/she just got a raise at work.
  - B. I took him/her out to a special dinner the night before.
5. You forget your spouse's (boyfriend's/girlfriend's) birthday.
  - A. I'm not good at remembering birthdays.
  - B. I was preoccupied with other things.
6. You get a flower from a secret admirer.
  - A. I am attractive to him/her.
  - B. I am a popular person.
7. You run for a community office position and you win.
  - A. I devote a lot of time and energy to campaigning.
  - B. I work very hard at everything I do.
8. You miss an important engagement.
  - A. Sometimes my memory fails me.
  - B. I sometimes forget to check my appointment book.



APPENDIX H (cont'd.)

9. You run for a community office position and you lose.
  - A. I didn't campaign hard enough.
  - B. The person who won knew more people.
10. You host a successful dinner.
  - A. I was particularly charming that night.
  - B. I am a good host.
11. You stop a crime by calling the police.
  - A. A strange noise caught my attention.
  - B. I was alert that day.
12. You were extremely healthy all year.
  - A. Few people around me were sick, so I wasn't exposed.
  - B. I made sure I ate well and got enough rest.
13. You owe the library ten dollars for an overdue book.
  - A. When I am really involved in what I am reading, I often forget when it's due.
  - B. I was so involved in writing the report that I forgot to return the book.
14. Your stocks make you a lot of money.
  - A. My broker decided to take on something new.
  - B. My broker is a top-notch investor.
15. You win an athletic contest.
  - A. I was feeling unbeatable.
  - B. I train hard.
16. You fail an important examination.
  - A. I wasn't as smart as the other people taking the exam.
  - B. I didn't prepare for it well.
17. You prepared a special meal for a friend and he/she barely touched the food.
  - A. I wasn't a good cook.
  - B. I made the meal in a rush.
18. You lose a sporting event for which you have been training for a long time.
  - A. I'm not very athletic.
  - B. I'm not good at that sport.
19. Your car runs out of gas on a dark street late at night.
  - A. I didn't check to see how much gas was in the tank.
  - B. The gas gauge was broken.

APPENDIX H (cont'd.)

20. You lose your temper with a friend.
  - A. He/she is always nagging me.
  - B. He/she was in a hostile mood.
21. You are penalized for not returning your income-tax forms on time.
  - A. I always put off doing my taxes.
  - B. I was lazy about getting my taxes done this year.
22. You ask a person out on a date and he/she says no.
  - A. I was a wreck that day.
  - B. I got tongue-tied when I asked him/her on the date.
23. A game-show host picks you out of the audience to participate in the show.
  - A. I was sitting in the right seat.
  - B. I looked the most enthusiastic.
24. You are frequently asked to dance at a party.
  - A. I am outgoing at parties.
  - B. I was in perfect form that night.
25. You buy your spouse (boyfriend/girlfriend) a gift and he/she doesn't like it.
  - A. I don't put enough thought into things like that.
  - B. He/she has very picky tastes.
26. You do exceptionally well in a job interview.
  - A. I felt extremely confident during the interview.
  - B. I interview well.
27. You tell a joke and everyone laughs.
  - A. The joke was funny.
  - B. My timing was perfect.
28. Your boss gives you too little time in which to finish a project, but you get it finished anyway.
  - A. I am good at my job.
  - B. I am an efficient person.
29. You've been feeling run down lately.
  - A. I never get a chance to relax.
  - B. I was exceptionally busy this week.
30. You ask someone to dance and he/she says no.
  - A. I am not a good enough dancer.
  - B. He/she doesn't like to dance.

APPENDIX H (cont'd.)

31. You save a person from choking to death.
  - A. I know a technique to stop someone from choking.
  - B. I know what to do in crisis situations.
32. Your romantic partner wants to cool things off for a while.
  - A. I'm too self-centered.
  - B. I don't spend enough time with him/her.
33. A friend says something that hurts your feelings.
  - A. She always blurts things out without thinking of others.
  - B. My friend was in a bad mood and took it out on me.
34. Your employer comes to you for advice.
  - A. I am an expert in the area about which I was asked.
  - B. I am good at giving useful advice.
35. A friend thanks you for helping him/her get through a bad time.
  - A. I enjoy helping him/her through tough times.
  - B. I care about people.
36. You have a wonderful time at a party.
  - A. Everyone was friendly.
  - B. I was friendly.
37. Your doctor tells you that you are in good physical shape.
  - A. I make sure I exercise frequently.
  - B. I am very health-conscious.
38. Your spouse (boyfriend/girlfriend) takes you away for a romantic weekend.
  - A. He/she needed to get away for a few days.
  - B. He/she likes to explore new areas.
39. Your doctor tells you that you eat too much sugar.
  - A. I don't pay much attention to my diet.
  - B. You can't avoid sugar, it's in everything.
40. You are asked to head an important project.
  - A. I just successfully completed a similar project.
  - B. I am a good supervisor.
41. You and your spouse (boyfriend/girlfriend) have been fighting a great deal.
  - A. I have been feeling cranky and pressured lately.
  - B. He/she has been hostile lately.

APPENDIX H (cont'd.)

42. You fall down a great deal while skiing.  
A. Skiing is difficult.  
B. The trails were icy.
43. You win a prestigious award.  
A. I solved an important problem.  
B. I was the best employee.
44. Your stocks are at an all-time low.  
A. I didn't know much about the business climate at the time.  
B. I made a poor choice of stocks.
45. You win the lottery.  
A. It was pure chance.  
B. I picked the right numbers.
46. You gain weight over the holidays and you can't lose it.  
A. Diets don't work in the long run.  
B. The diet I tried didn't work.
47. You are in the hospital and few people come to visit.  
A. I'm irritable when I am sick.  
B. My friends are negligent about things like that.
48. They won't honor your credit card at a store.  
A. I sometimes overestimate how much money I have.  
B. I sometimes forget to pay my credit-card bill.

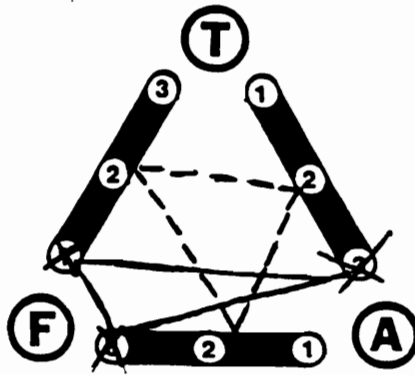
(Reproduced, with permission, from Learned Optimism, Dr. Martin Seligman, 1991, New York: Alfred A. Knopf)

**APPENDIX I. SELF-PLOTTED AND INTERVIEW ANALYSIS TRIAD**

TFA©Interview Format

Situation #34

1. Is your behavior more Thinking, more Feeling, or about in the Middle?
2. Is your behavior more Feeling, more Acting, or about in the Middle?
3. Is your behavior more Acting, more Thinking, or about in the Middle?
4. Connect points on each side of the TFA Triangle to form a TFA Triad (closed inner triar
5. Elaborate on specific aspects of your behavior that led you to respond to 1, 2, or 3 as you did.



SELF-PLOTTED TRIAD \_\_\_\_\_

INTERVIEW ANALYSIS TRIAD - - - - -

APPENDIX J.

## CONTENT ANALYSIS OF TFA CLINICAL INTERVIEW

Ss #34

T-F=F

- T: 3  
F: 6  
A: 9
1. I know I had an extra <sup>A</sup>visit with the doctor because of the pain<sup>F</sup> cause I thought at the time that it was very severe.
  2. <sup>F</sup> Severe to the extent that I could not sleep in a comfortable position. <sup>A</sup>
  3. <sup>F</sup> It was hurting so much.
  4. <sup>A</sup> Usually I get up, and I have difficulty getting up because of the pain<sup>F</sup> ~~but~~ this one the last time that I felt the pain in my back it seemed more severe than what I would say is normal, normal pain.
  5. <sup>A</sup> First of all I had difficulty finding a comfortable position.
  6. <sup>A</sup> Every movement is labored because it's very difficult, and the <sup>F</sup> pain was such I felt like - I felt nauseous, like I wanted to throw up and <sup>T</sup> I said this is too much.
  7. <sup>T</sup> I can't handle it myself by trying to relax<sup>A</sup>, because usually that's what I do.
  8. <sup>A</sup> I go in a room and be by myself<sup>F</sup> and try to lock everything out, and then just lay there and relax and try to get the pain<sup>F</sup> to go away. <sup>A</sup> <sup>A</sup>
  9. <sup>T</sup> This time I couldn't do that.

F-A=F

- T: 7  
F: 4  
A: 3
10. <sup>T</sup> When I felt the pain that's when I decided that I couldn't do <sup>A</sup> the normal things at home.
  11. <sup>T</sup> So then I knew I needed help.
  12. <sup>A</sup> For that reason I called for an appointment to see if perhaps the doctor could help me.
  13. <sup>A</sup> Going to him helped a lot, <sup>T</sup> he seemed to take away the pain, as it turns out to be a spasm.
  14. <sup>T</sup> I wish I didn't have to go the doctor because first of all financially it's a drain to go to him, (especially in the last two years since surgery I've had to go back.)
  15. <sup>T</sup> It's a recurring thing, it's a never ending type visit and I wished I didn't have to do that.
  16. <sup>F</sup> It's frustrating.
  17. <sup>T</sup> I see the result when I go out of the room and I receive the (bill, and I say am I tied to this office for the rest of my) (life.)
  18. <sup>F</sup> It's a frightening thought (especially now since my husband is getting ready to retire, or would like to, and I said will this go on forever, we can't afford it seeing the doctor all the time.)
  19. <sup>F</sup> It's a burden because I have three young children, (I have two grown children, but I have three young children that could use the money that I use for the office visits.)
  20. <sup>T</sup> I felt it was a burden and I'm becoming a <sup>F</sup> burden to the family because of my back.
  21. <sup>T</sup> I know it's something that's necessary because I know because of the surgery I can't handle it myself.

A-T=A

22. <sup>T</sup> Normally I wouldn't even think about the pain because I know

APPENDIX J (cont'd.)

- it's there and I<sup>A</sup> just go on with what I have to do in the day.
23. T I felt I should make an appointment, call the doctor to help A  
me with the pain. F
24. T It's a form of habit if you feel he's going to help you that's  
where you turn, so that's what I did I called him for help. A
25. T I was told by one of the other doctors that I was seeing who  
is a cardiologist, no not a cardiologist an orthopedist, who  
said that some of the pain that I'm enduring now might be, he  
didn't say definitely, might be alleviated if in the future I  
decide to have a fusion in my lower back.
26. T They're never certain that the result will be to my advantage,  
and I've talked to several people who have had surgery in the  
back and they say it's not always (pause) and I'm living with  
that thought in mind.
27. T I put it in the back of my mind.
28. T This month especially, we've been in the process of putting  
the house up for sale so we've been very busy) and I've had not  
time to think about myself and my pain. F
29. T I think I've overextended myself as far as pain because many  
nights I've gone to bed exhausted because my husband works and  
A I'm home boxing things for storage, cleaning up, etc..
30. T I take care of it (the pain) like I said I work to the point  
where I'm exhausted, F and I can sleep soundly. A
31. T That seems to be the only refuge for me, but the thing is it  
doesn't always work because if I'm really in pain then it  
keeps me up.
32. T Most of my pain is hidden from everybody.
33. T Everybody thinks I'm fine, I'm just doing my normal things. A  
but they don't realize that I'm really just pushing it aside  
so I can continue my duties as a mother.

T: 9  
F: 4  
A: 7

T: 19 F: 14 A: 19

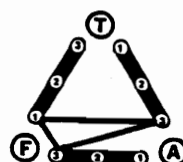
APPENDIX K.

TFA INTERVIEW ASSESSMENT AND RATIONALE

\* Case 34 TFA Interview Assessment & Rationale ©

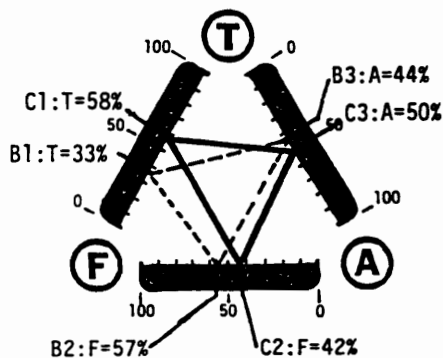
A. Client TFA Assessment

1. T-F Scale = F
  2. F-A Scale = F
  3. A-T Scale = A
- TFA Triad---->



B. TFA Interview Assessment

	T	F	A
1. T-F	3	6	9
2. F-A	7	4	3
3. A-T	9	4	7
<b>Totals</b>	<b>19</b>	<b>14</b>	<b>19</b>



C. Bipolar Assessment of Interview

1. T-F    19    14            T = 58%
2. F-A            14    19            F = 42%
3. A-T    19            19            A = 50%

\*\*\* The following percentages apply to C (above):

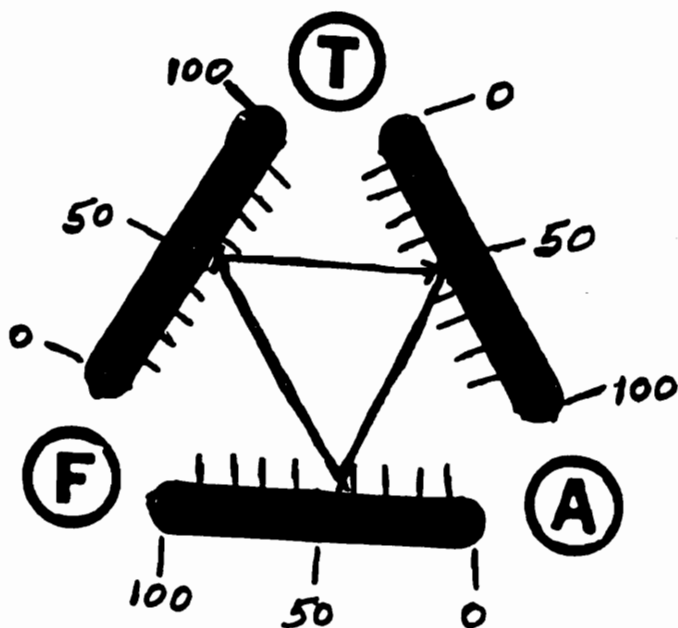
1. T-F (T19 + F14 = 33; 33 into 19 = T 58%)
2. F-A (F14 + A19 = 33; 33 into 14 = F 42%)
3. A-T (A19 + T19 = 38; 38 into 19 = A 50%)

TFA Triads

Note the two different triads formed on the TFA Triangle. The solid line reflects more accurate interview content because the non-bipolar dimension is added to the overall result.

\*\*\* Scores are converted to percentages of each scale by adding bipolar scores for each scale and dividing the sum into the score of the first letter of each scale (T-F, F-A, A-T). For example in B-1, (T-F) above: T3 + F6 = 9; T3 divided by 9 = 33%.



APPENDIX L.TRANSLATION OF INTERVIEW SCORES TO PERCENTAGE  
TRIAD

APPENDIX M.

HUTCHINS BEHAVIOR INVENTORY ASSESSMENT AND RATIONALE

HUTCHINS BEHAVIOR INVENTORY  
HBI'S

ID NO. - 000000035      AGE - 48      CODES -

SEQ. NO. - 34

ED. LEVEL - HSGR      SEX - FEMF

-----  
TOTAL THINKING RESPONSES: 29      AVERAGE THINKING INTENSITY: 1.69  
TOTAL FEELING RESPONSES: 43      AVERAGE FEELING INTENSITY: 1.67  
TOTAL ACTING RESPONSES: 3      AVERAGE ACTING INTENSITY: 1.33  
-----

THINKING INTENSITIES: SOMEWHAT 10  
                                    MODERATELY 18  
                                    VERY 1

FEELING INTENSITIES: SOMEWHAT 14  
                                    MODERATELY 29  
                                    VERY 0

ACTING INTENSITIES: SOMEWHAT 2  
                                    MODERATELY 1  
                                    VERY 0

BIPOLAR SCALES: THINKING/ACTING RAW 1|24 25  
  WEIGHTED 1

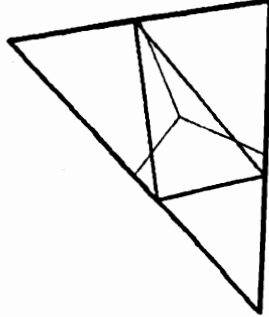
FEELING/THINKING RAW 5|20 25  
  WEIGHTED 5

ACTING/FEELING RAW 23| 2 25  
  WEIGHTED 24

-----  
NATURAL BIPOLAR VALUES: THINKING/ACTING 2|40 42  
  FEELING/THINKING 9|35 44  
  ACTING/FEELING 37| 2 39  
-----

TOTAL OMISSIONS AND DOUBLE MARKS: 0

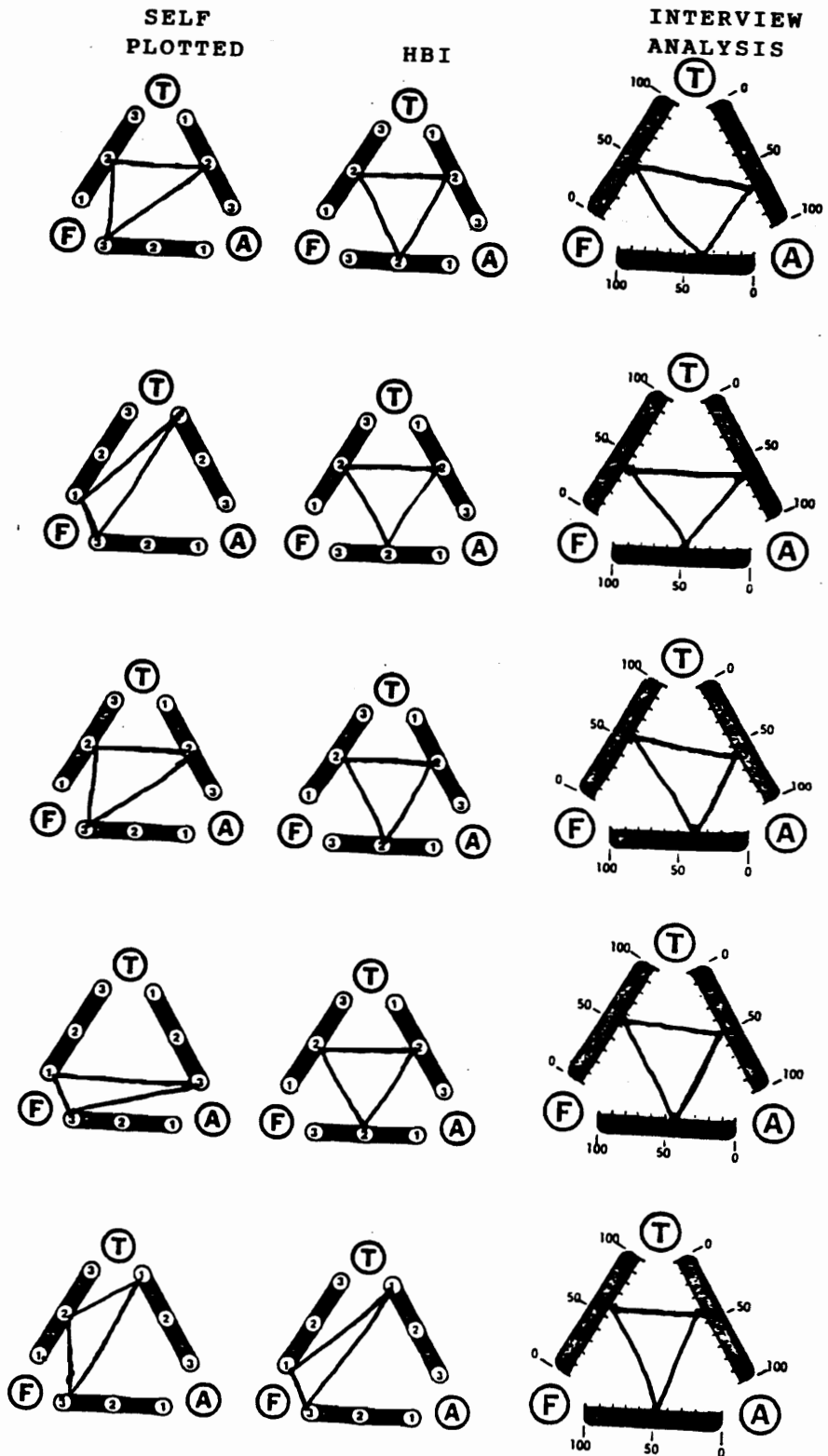
THINKING



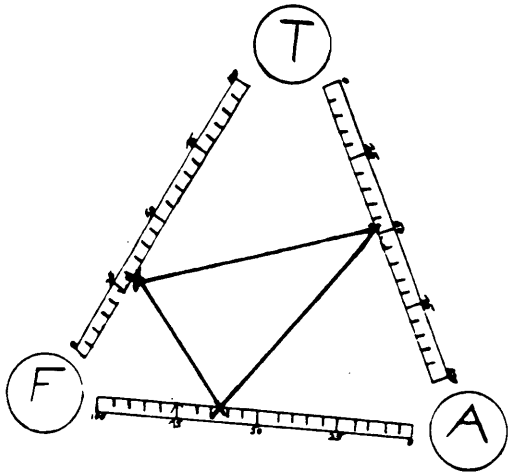
FEELING      ACTING

APPENDIX N.

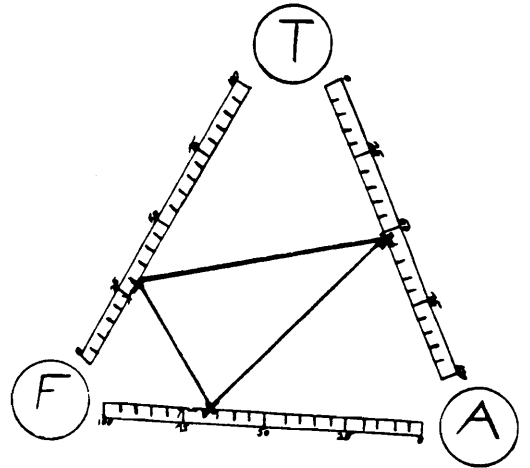
COMPARISON OF SELF-PLOTTED, HBI AND INTERVIEW ANALYSIS TRIADS



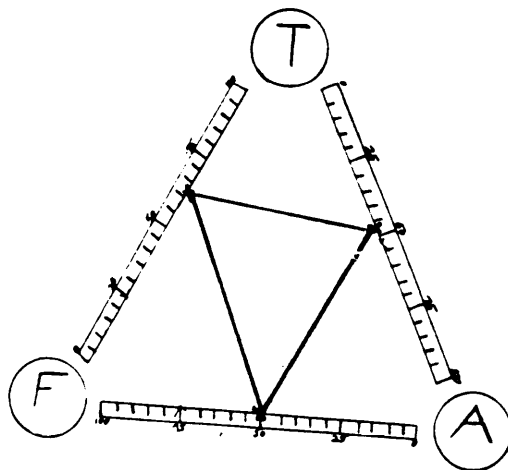
APPENDIX O.      **GROUP AVERAGE PROFILES**



**SELF-PLOTTED**



**HBI**



**INTERVIEW ANALYSIS**

**APPENDIX P. USE OF METHODS BY DEMOGRAPHIC CHARACTERISTICS**

		Mean Number and Percent of Methods Used						
		N	Thinking (5 Methods)		Feeling (5 Methods)		Action (8 Methods)	Total
<b>Gender</b>								
	Female	28	2.1		2.2		4.2	8.5
	Male	11	1.9		1.3		5.0	8.2
	t		0.41	0.68	1.61	0.12	1.07	0.29
	p							
<b>Age</b>								
	20-29	3	2.7		2.0		4.0	8.7
	30-39	9	2.0		2.9		5.3	10.2
	40-49	15	2.4		1.5		3.8	7.7
	50-59	6	2.0		2.3		4.7	9.0
	60+	6	1.0		1.3		4.8	7.1
	F(df=4,34)		1.40	0.25	1.15	0.35	0.97	0.44
	p							
<b>Family Income</b>								
	Less than \$10000	5	2.4		1.8		3.4	7.6
	\$10K-\$19999	7	2.1		2.1		4.7	8.9
	\$20K-\$34999	3	3.0		3.0		4.7	10.7
	\$35000 or more	24	1.8		1.8		4.6	8.2
	F(df=3,35)		0.83	0.49	0.42	0.74	2.19	0.54
	p							
<b>Education</b>								
	No HS Diploma	2	1.3		2.0		5.7	9.0
	HS Diploma	6	2.0		2.4		4.4	8.8
	Some College	13	2.2		1.7		4.0	7.9
	College Graduate	2	2.4		2.8		6.4	11.6
	Grad/Prof Training	5	1.9		1.5		3.8	7.2
	F(df=4,34)		0.36	0.84	0.58	0.68	2.21	0.09
	p							
<b>Marital Status</b>								
	Single	9	2.7		1.9		4.2	8.8
	Separated/Divorced	2	1.5		1.0		3.5	6.0
	Married	15	1.8		2.0		4.7	8.5
	Widowed	2	2.0		4.0		5.0	11.0
	F(df=3,35)		1.34	0.28	1.37	0.27	0.51	0.68
	p							

**APPENDIX Q. TFA PROFILES AND USAGE OF TYPE OF TREATMENT METHOD**

Profiles	Subjects #	Methods Used		
		T	F	A
T-F	7	4	5	8
F-T	2	1	0	2
	19	1	3	4
	25	2	5	5
	35	4	4	4
F-A	1	1	4	5
	11	2	3	3
	24	3	1	6
	27	3	4	4
	40	3	3	2
A-F	21	3	3	8
A-T	15	2	0	4
	37	2	3	3
	39	0	0	4
T-A	5	1	0	2
	6	4	4	4
TFA	8	0	3	4
	9	1	0	0
	16	0	0	3
	17	2	0	5
	23	4	1	4
	26	1	0	4
	28	3	5	8
	30	3	0	5
	31	1	2	3
	32	1	0	8
	33	0	0	4
	34	1	1	3
	36	1	2	5
	38	0	0	3
	F(A-T)	3	4	1
4		4	2	3
10		4	3	7
12		2	0	2
13		2	3	4
14		3	2	5
18		3	4	8
20		3	4	5
22		1	2	8

REFERENCES

- Acklin, M. W. and Bernat, E. (1987). Depression, alexithymia, and pain prone disorder: A Rorschach study. Journal of Personality Assessment, 51(3), 462-479.
- Acklin, M. W. and Alexander, G. (1988). Alexithymia and somatization: A Rorschach study of four psychosomatic groups. Journal of Nervous and Mental Disease, 176(6), 343-350.
- Ahern, D.K. and Follick, M.J. (1985). Distress in spouses of chronic pain patients. International Journal of Family THERAPY, 11(2), 197-204.
- Ahrens, S. and Deffner, G. (1986). Empirical study of alexithymia: Methodology and results. American Journal of Psychotherapy, 40(3), 430-447.
- Anderson, L.P. and Rehm, L.P. (1984). The relationship between strategies of coping and perception of pain in three chronic pain groups. Journal of Clinical Psychology, 40(5), 1170-1177.
- Arieff, A.J., Bell, J.L. and Tigay, E.L. (1964). Reflex physiopathic disturbances. Surgery, Gynecology & Obstetrics, 111(5), 1029-1034.
- Avery, Catherine. (1990). The stigma of chronic pain. Lifeline: The Newsletter of the National Chronic Pain Outreach Association, Inc. February, 1-7.

- Baquie, M.L. (1989). What matters most in chronic pain management. RN, 52(3), 46-50.
- Beck, R.J. and Lustig, P. (1991). Counseling the chronic pain patient. In T.W. Miller (Ed.), Chronic pain (pp.725-755). Connecticut: International Universities Press, Inc..
- Beers, T.M. and Karoly, P. (1979). Cognitive strategies, expectancy, and coping style in the control of pain. Journal of Consulting and Clinical Psychology, 47(1), 179-180.
- Belar, C.D. and Kibrick, S.A. (1986). Biofeedback in the treatment of chronic back pain. In A.D. Holzman and D.C. Turk (Eds.), Pain management: A handbook of psychological treatment approaches (pp.131-150). New York: Pergamon Press.
- Blumer, D. and Heilbronn, M. (1981). The pain-prone disorder: A clinical and psychological profile. Psychosomatics, 22, 395-402.
- Bolles, E. B. (1990). Relief from chronic backache. New York: Dell Publishing Company.
- Bonica, J. J. (1980). Pain research and therapy: Past and current status and future needs. In L.K. Ng and J.J. Bonica (Eds.), Pain, discomfort and humanitarian care (pp.1-46). New York: Elsevier/North Holland.



- Bonica, J. J. (1990). History of pain concepts and therapies. In J. J. Bonica (Ed.), The management of pain (pp.2-17). Philadelphia: Lea and Febiger.
- Bonica, J. J. (1990). Applied anatomy relevant to pain. In J. J. Bonica (Ed.), The management of pain (pp.133-158). Philadelphia: Lea and Febiger.
- Bonica, J. J. (1990). General considerations of chronic pain. In J. J. Bonica (Ed.), The management of pain (pp.180-196). Philadelphia: Lea and Febiger.
- Breckner, V.L. and Ferrer-Breckner, T. (1978). Three alternatives to surgery and drugs in pain control. In S. F. Brena (Ed.), Chronic pain: America's hidden epidemic (pp.150-158). New York: Atheneum/SMI.
- Brena, S. F. (1978). The staggering cost of chronic pain. In S.F. Brena (Ed.), Chronic pain: America's hidden epidemic (pp.3-18). New York: Atheneum/SMI.
- Brena, S. F. (1978). The anatomy of pain. In S. F. Brena (Ed.), Chronic pain: America's hidden epidemic (pp.117-124). New York: Atheneum/SMI.
- Brown, G. K. and Nicasio, P. M. (1987). Development of a questionnaire for the assessment of active and passive coping strategies in chronic pain patients. Pain, 31, 53-64.

- Bureau of Business Practice, Inc. (1991). Facts about backs. Waterford, CT: Bureau of Business Practice, Inc..
- Burguer, R. and Smit, R. (1981). Transaxillary Sympathectomy (T2 to T4) for relief of vasospastic sympathetic pain of upper extremities. Surgery, 89(6), 764-769.
- Carlson, N. R. (1981). Physiology of behavior. Boston: Allyn & Bacon.
- Carron, H. (1987). Theories of pain. In E. M. Catalano (Ed.), The chronic pain control workbook (pp.13-23). Oakland, CA: New Harbinger Publications, Inc..
- Chapman, C.R. (1984). New directions in the understanding and management of pain. Social Science Review, 19(12), 1261-77.
- Chaves, J. F. and Brown, J. M. (1987). Spontaneous cognitive strategies for the control of clinical pain and stress. Journal of Behavioral Medicine, 10(3), 263-276.
- Cicchone, D.S. and Grzesiak, R.C. (1984). Cognitive dimensions of chronic pain. Social Science Medicine, 19(12), 1339-1345.
- Cleeland, C.S. and Tearnan, B.H. (1986). Behavioral control of cancer pain. In A.D. Holzman and D.C. Turk (Eds.), Pain management: A handbook of psychological

treatment approaches (pp.193-212). New York: Pergamon Press.

Clow, D.R., Hutchins, D.E. and Vogler, D.E. (in press). TFA Systems (tm): A unique group approach applied to treatment of spouse abusers. Submitted to the Journal for Specialists in Group Work.

Clow, D.R., Hutchins, D.E. and Vogler, D.E. (1990). Treatment for spouse abusive males. In S.M. Stith, M.B. Williams, & K. Rosen (Eds.), Violence hits home (pp.66-82). New York: Springer Publishing Company.

Cohen, M.J., Heinrich, R.L. and Maliboff, B.D., Collins, G. A. and Bonebakker, A. D. (1983). Group outpatient physical and behavioral therapy for chronic low back pain. Journal of Clinical Psychology, 39(3), 326-333.

Cook, J., Tunks, E., Kalaher, S. and Roberts, J. (1988). Coping with persistent pain: A comparison of persistent pain sufferers in a specialty pain clinic and in a family practice clinic. Pain, 34, 175-184.

Corey, Gerald. (1977). Theory and practice of counseling and psychotherapy. Belmont, CA: Wadsworth Publishing Company, Inc..

Corsini, R.J. and Wedding, D. (1989). Current psychotherapies. Illinois: F.E. Peacock Publishers, Inc..

Cousins, Norman. (1989). Head first: the biology of hope. New York: E. P. Dutton.

- Daniel, M., Long, C., Murphy, W., Kores, R. and Hutcherson, W. (1983). Therapists' and chronic pain patients perceptions of treatment outcomes. The Journal of Nervous and Mental Disease, 71(12), 729-733.
- De Andrade, J. R. (1978). Common painful experiences: Low-back pain. In S. F. Brena (Ed.), Chronic pain: America's hidden epidemic (pp.166-174). New York: Athenaeum/SMI.
- Dilts, R., Hallbom, T. and Smith, S. (1990). Beliefs: Pathways to health & well-being. Portland, Oregon: Metamorphous Press.
- Dolce, J.J., Crocker, M.F., Moletteire, C. and Doleys, D.M. (1986). Exercise quotas, anticipatory concern and self-efficacy expectancies in chronic pain: A preliminary report. Pain, 24, 365-372.
- Ekelund, Lars-Goran. (1978). Ca blockers and peripheral circulation-physiological viewpoints. Acta Pharmacologica et Toxicologica, 43(1), 33-43.
- Eland, J. M. (1978). Living with pain. Nursing Outlook, 26(7), 430-31.
- Elliott, D.J., Trief, P.M. and Stein, N. (1986). Mastery, stress and coping in marriage among chronic pain patients. Journal of Behavioral Medicine, 9(6), 549-558.

- Engelbart, H.J. and Vrancken, M.A. (1984). Chronic pain from the perspective of health: A view based on systems theory. Social Science Medicine, 19(12), 1383-1392.
- Erickson, R. C. (1988). Pastoral care and counseling with the chronically ill. Pastoral Psychology, 37(1), 15-24.
- Eriksen, Soren. (1981). Duration of sympathetic blockade. Anesthesia, 36(8), 768-771.
- Evans, J.A. (1947). Reflex sympathetic dystrophy: Report on 57 cases. Annals of Internal Medicine, 26, 417-426.
- Faelten, S. and Diamond, D. (1988). Take control of your life. Emmaus, PA: Rodale Press.
- Fairfax Hospital. (1991). Oh, that aching back. Regarding Women, Summer, 1-4.
- Fernandez, Ephrem. (1986). A classification of cognitive coping strategies for pain. Pain, 26, 141-151.
- Fernandez, E. and Turk, D.C. (1989). The utility of cognitive coping strategies for altering pain perception: A meta-analysis. Pain, 38, 123-135.
- Fordyce, W. E. (1990). Contingency management. In T. W. Miller (Ed.), Chronic pain (pp.1702-1710). Connecticut: International Universities Press, Inc..
- France, R.D. and Krishnan, K.R. (1990). The systems approach to the assessment and management of chronic pain. In T. W. Miller (Ed.), Chronic pain (pp.181-

214). Connecticut: International Universities Press, Inc..

- Freyburger, H., Kunsebeck, H-W., Lempa, W., Wellman, W. and Avenarius, H-J. (1985). Psychotherapeutic interventions in alexithymic patients. Psychotherapy and Psychosomatics, 44(2), 72-81.
- Gavzer, Bernard. (1993). What keeps me alive. Parade, January 31, 4-7.
- George, R.L. and Cristiani, T.S. (1981). Theory, methods and processes of counseling and psychotherapy. New Jersey: Prentice-Hall, Incorporated.
- Gilliland, B.E., James, R.K. and Bowman, J.T. (1989). Theories and strategies in counseling and psychotherapy. New Jersey: Prentice-Hall Publishers.
- Girodo, M. and Wood, D. (1979). Talking yourself out of pain: The importance of believing that you can. Cognitive Therapy and Research, 3(1), 23-33.
- Hafer, W. K. (1981). Coping with bereavement from death or divorce. Englewood Cliffs, New Jersey: Prentice-Hall, Inc..
- Hanson, R.W. and Gerber, K.E. (1990). Coping with chronic pain. New York: The Guilford Press.
- Hartman, L.M. and Ainsworth, K.D. (1980). Self-regulation of chronic pain. Canadian Journal of Psychiatry, 25(1), 38-50.

- Hendler, N.H. and Fenton, J.A. (1979). Coping with chronic pain. New York: Clarkson N. Potter Incorporated Publishers.
- Hendler, N. (1981). Diagnosis and management of (non-surgical) chronic pain. Journal of Clinical Psychology, 43(8,sec.2), 15-21.
- Hendryx, M. S., Haviland, M. G. and Shaw, D. G. (1991). Dimensions of alexithymia and their relationships to anxiety and depression. Journal of Personality Assessment, 56(2), 227-237.
- Herman, E. W. (1990). Group experience as healing process. In T. W. Miller (Ed.), Chronic pain (pp.459-497). Connecticut: International Universities Press, Inc..
- Holzman, A.D., Turk, D.C. and Kerns, R.D. (1986). The cognitive-behavioral approach to the management of chronic pain. In A.D. Holzman and D.C. Turk (Eds.), Pain Management: A handbook of psychological treatment approaches (pp.31-50). New York: Pergamon Press.
- Hutchins, D.E. (1979). Systematic counseling: The T-F-A model for counselor interventions. The Personnel and Guidance Journal, 57(9), 529-31.
- Hutchins, D.E. (1982). Ranking major counseling strategies with the TFA/Matrix system. The Personnel and Guidance Journal, 60(7), 427-31.

- Hutchins, D.E. (1984). Improving the counseling relationship. The Personnel and Guidance Journal, 62(10), 572-75.
- Hutchins, D.E. and Vogler, D.E. (1988). TFA Systems (tm). Unpublished manuscript. Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Hutchins, D.E. and Cole, C. G. (1992). Helping relationships and strategies. (2nd Ed.). Pacific Grove, CA: Brooks/Cole Publishing Company.
- Hutchins, D.E. and Mueller, R.D. (1992). Manual for the Hutchins Behavior Inventory. Palo Alto, CA: Consulting Psychologists Press.
- Jacox, A. K. (1979). Assessing pain. American Journal of Nursing, 79(5), 895-900.
- Jaret, Peter. (1990). 18 Points of pain. Health, July, 62-65.
- Jay, L.L. and Miller, T.W. (1990). Chronic pain and the geriatric patient. In T. W. Miller (Ed.), Chronic pain (pp.821-838). Connecticut: International Universities Press, Inc..
- Jensen, M.P., Karoly, P. and Huger, R. (1987). The development and preliminary validation of an instrument to assess patient's attitudes toward pain. Journal of Psychosomatic Research, 32(3), 393-400.



- Julkunen, J., Hurri, H. and Kankainen, J. (1988). Psychological factors in the treatment of chronic low back pain. Psychotherapy and Psychosomatics, 50(4), 173-181.
- Kabat-Zinn, J., Lipworth, L. and Burney, R. (1985). The clinical use of mindfulness meditation for the self-regulation of chronic pain. Journal of Behavioral Medicine, 8(2), 163-190.
- Katz, Philip. (1990). Taking charge of your pain. Life-line, May(1990), 1-3.
- Keefe, F.J. and Dolan, E. (1986). Pain behavior and pain coping strategies in low back pain and myofascial pain dysfunction syndrome patients. Pain, 24, 49-56.
- Kerns, R. D. and Turk, D. C. (1984). Depression and chronic pain: The mediating role of the spouse. Journal of Marriage and the Family, 46(4), 845-52.
- Kinder, B. N. and Curtiss, G. (1990). Alexithymia among empirically derived subgroups of chronic back pain patients. Journal of Personality Assessment, 54(1&2), 351-362.
- Kleinke, C.L. and Spangler, A.S. (1988). Predicting treatment outcome of chronic back pain patients in a multidisciplinary pain clinic: Methodological issues and treatment implications. Pain, 33, 41-48.

- Kongstvedt, S. J. (1987). Cognitive approaches to pain control: Common factors underlying their effectiveness. Journal of Counseling and Development, 65(10), 538-41.
- Kotarba, J. A. and Seidel, J.V. (1984). Managing the problem pain patient: Compliance or social control? Social Science Medicine, 19(12), 1393-1400.
- Kozin, F., Ryan, L.M., Carrera, G.F., Soin, J.S. and Wortmann, R.L. (1981). The reflex sympathetic dystrophy syndrome (RSDA). The American Journal of Medicine, 70, 23-30.
- Kreitler, S., Kreitler, H. and Carasso, R. (1987). Cognitive orientation as predictor of pain relief following acupuncture. Pain, 28, 323-341.
- Lakoff, Robert. (1990). The psychology and psychotherapy of the chronic pain patient. In T. W. Miller (Ed.), Chronic pain (pp.499-524). Connecticut: International Universities Press, Inc..
- Linchitz, R. M. (1987). Life without pain. New York: Addison-Wesley Publishing Company, Inc..
- Linssen, A.C.G. and Zitman, F.G. (1984). Patient evaluation of a cognitive behavioral group program for patients with chronic low back pain. Social Science Medicine, 19(12), 1361-1364.
- Linton, S.J. (1987). Chronic pain: The case for prevention. Behavior Research Therapy, 25(4), 313-17.

- Linton, S.J. (1989). Behavioral remediation of chronic pain: A status report. Pain, 24, 125-141.
- Lipton, J.A. and Marbach, J.J. (1984). Ethnicity and the pain experience. Social Science Medicine, 19(12), 1279-1298.
- Ljungdahl, Lars. (1990). Benefits of humor therapy. Physical Therapy Bulletin, April, 5-6.
- Loiselle, C. G. and Dawson, C. (1988). Toronto Alexithymia Scale: Relationships with measures of patient self-disclosure and private self-consciousness. Psychotherapy and Psychosomatics, 50(2), 109-116.
- Maciewicz, R., Bouckoms, A. and Martin, J.B. (1985). Drug therapy of neuropathic pain. The Clinical Journal of Pain, 1(1), 39-47.
- Mac Kenzie, S.R. and Wakat, D.K. (1990). The physiology of chronic pain: The foundation for successful intervention strategies. Journal of Mental Health Counseling, 12(2), 164-174.
- MacLean, Helene. (1990). Relief from chronic arthritis pain. New York: Dell Publishing.
- Marciani, R. D. (1990). Chronic pain: Economic, ethical and psychosocial considerations. In T. W. Miller (Ed.), Chronic pain (pp.81-115). Connecticut: International Universities Press, Inc..

- Maruta, T., Osborne, D., Swanson, D.W. and Halling, J.M. (1981). Chronic pain patients and spouses: Marital and sexual adjustment. Mayo Clinic Procedures, 56(5), 307-310.
- Maruta, T., Swanson, D.W. and McHardy, M.J. (1990). Three years follow-up of patients with chronic pain who were treated in a multidisciplinary pain management center. Pain, 41, 47-53.
- McCaul, K. D. and Malott, J. M. (1984). Distraction and coping with pain. Psychological Bulletin, 95(3), 516-533.
- Melzack, Ronald. (1975). The McGill pain questionnaire: Major properties and scoring methods. Pain, 1(3), 277-299.
- Melzack, R. and Wall, P. D. (1965). Pain mechanisms: A new theory. Science, 150, 971-979.
- Menges, L.J. (1984). Pain: Still an intriguing puzzle. Social Science Medicine, 19(12), 1257-60.
- Merck Manual of Diagnosis and Therapy. (1987). Fifteenth Edition. Rahway, New Jersey: Merck Sharp & Dohme Research Laboratories.
- Merskey, Harold. (1986). Traditional individual psychotherapy and psychopharmacotherapy. In A.D. Holzman and D.C. Turk (Eds), Pain management: A handbook of psych-

ological treatment approaches (pp.51-70). New York: Pergammon Press.

Merskey, H. and Magni, G. (1990). Psychological techniques in the treatment of chronic pain. In T. W. Miller (Ed.), Chronic pain (pp.367-388). Connecticut: International Universities Press, Inc..

Miller, T. W. (1990). Concluding thoughts on chronic pain. In T. W. Miller (Ed.), Chronic pain (pp.839-43). Connecticut: International Universities Press, Inc..

Moore, J. C. and Chaney, E. F. (1985). Outpatient group treatment of chronic pain: Effects of spouse involvement. Journal of Consulting and Clinical Psychology, 53(3), 326-334.

Mosak, H.H. (1989). Adlerian psychotherapy. In R.J. Corsini and D. Wedding (Eds.), Current psychotherapies (pp.65-116). Illinois: F.E. Peacock Publishers, Incorporated.

Mueller, R.D., Hutchins, D.E. and Vogler, D.E. (1990). Validity and reliability of the Hutchins Behavior Inventory: A confirmatory maximum likelihood analysis. Journal of Measurement and Evaluation in Counseling and Development, 22, 203-213.

Nathan, P. W. (1976). The gate control theory of pain. Brain: A Journal of Neurology, 99(1), 123-158.

- Orenstein, R. and Carstensen, L. (1991). Psychology: The study of human experience. San Diego: Harcourt Brace Jovanovich, Publishers.
- Owens, S., Atkinson, E.R. and Lees, D.E. (1979). Thermo-graphic evidence of reduced sympathetic tone with transcutaneous nerve stimulation. Anesthesiology, 50(1), 62-65.
- Papalia, D. E. and Olds, S. W. (1992). Human development. New York: McGraw-Hill, Inc..
- Papciak, A. S., Feuerstein, M., Belar, C. D. and Pistone, L. (1987). Alexithymia and pain in an outpatient behavioral medicine clinic. International Journal of Psychiatry in Medicine, 16(4), 347-357.
- Peterson, C., Semmel, A., von Baeyer, C., Abramson, L.Y., Metalsky, G.I. and Seligman, M.E. (1982). The Attributional Style Questionnaire. Cognitive Therapy and Research, 6(3), 287-299.
- Philips, H.C. (1987). Avoidance behavior and its role in sustaining chronic pain. Behavior Research Therapy, 25(4), 273-79.
- Philips, H.C. (1987). The psychological management of chronic pain: A treatment manual. New York: Springer Publishing Company.

- Pilowsky, Issy. (1986). Pain and chronic illness behavior. In R. Sternbach (Ed.), Psychology of pain (pp.300-309). New York: Raven Press.
- Puder, R. S. (1988). Age analysis of cognitive-behavioral group therapy for chronic pain outpatients. Psychology and Aging, 3(2), 204-07.
- Raj, P. P. (1986). Epidemiology of pain. In P. P. Raj (Ed.), Practical management of pain (pp.14-19). Chicago: Year Book Medical Publishers, Inc..
- Ramamurthey, S. (1986). Low back pain. In P. P. Raj (Ed.), Practical management of pain (pp.470-485). Chicago: Year Book Medical Publishers, Inc..
- Reagles, Susan. (1984). Chronic pain: Principles for rehabilitation counselors. Rehabilitation Counseling Bulletin, 28(1), 15-27.
- Reesor, K.A. and Craig, K.D. (1988). Medically incongruent chronic back pain: Physical limitations, suffering and ineffective coping. Pain, 32, 35-45.
- Roberts, N., Bennett, S. and Smith, R. (1986). Psychological factors associated with disability in arthritis. Journal of Psychosomatic Research, 30(2), 223-231.
- Roy, Ranjan. (1989). Chronic pain and the family. Journal of Family Therapy, 11(2), 197-204.
- Sarason, I. G. and Sarason, B. R. (1989). Abnormal psychology. Englewood Cliffs, New Jersey: Prentice-Hall.

- Satterthwaite, J.R. (1989). Postherpetic neuralgia. In C.D. Tollison (Ed.), Handbook of chronic pain management. Baltimore: Williams & Wilkins.
- Schnarch, D. M. (1991). Constructing the sexual crucible. New York: W. W. Norton & Company.
- Schwartzman, R.J. and McLellan, T.L. (1987). Reflex sympathetic dystrophy: A review. Archives of Neurology, 44, 555-561.
- Scott, D.S. and Barber, T.X. (1977). Cognitive control of pain: Effects of multiple cognitive strategies. The Psychological Record, 2, 373-383.
- Seligman, M. P. (1991). Learned optimism. New York: Alfred A. Knopf.
- Shapiro, Beverly. (1985). "All I Have Is The Pain": Art therapy in an inpatient chronic pain relief unit. The American Journal of Art Therapy, 24(2), 44-48.
- Sherman, R.A., Sherman, C.J. and Bruno, G.M. (1987). Psychological factors influencing chronic phantom limb pain: An analysis of the literature. Pain, 25, 285-295.
- Siegel, B.S. (1986). Love, medicine & miracles. New York: Harper & Row Publishers.
- Siegel, B.S. (1989). Peace, love & healing. New York: Harper & Row Publishers.



- Skinner, J.B., Erskine, A., Pearce, S., Rubinstein, I., Taylor, M. and Foster, C. (1990). The evaluation of a cognitive behavioural treatment programme in out-patients with chronic pain. Journal of Psychosomatic Research, 34(1), 13-19.
- Slagle, K. W. (1982). Live with loss. Englewood Cliffs, New Jersey: Prentice-Hall, Inc..
- Spanos, N. P., Stam, H. J. and Brazil, K. (1981). The effects of suggestion and distraction on coping ideation and reported pain. Journal of Mental Imagery, 5, 75-90.
- Stedham's Medical Dictionary. (1990). Twenty-fifth edition. Baltimore: Williams & Wilkins.
- Sternbach, R.A. (1986). The psychology of pain. New York: Raven Press.
- Stieg, R.L. and Williams, R.C. (1983). Chronic pain as a biosociocultural phenomenon: Implications for treatment. Seminars in Neurology, 3(4), 370-76.
- Subramanian, K. and Rose, S. (1988). Pain management: A 2-year follow-up study. Social Work Research and Abstracts, 24(4), 2-3.
- Sweet, W.H. and Poletti, C.E. (1985). Causalgia and sympathetic dystrophy. In G.M. Aronoff (Ed.), Evaluation and treatment of chronic pain (pp.149-165). Baltimore-Munich: Urban & Schwarzenberg.

- Swiller, H. I. (1988). Alexithymia: Treatment utilizing combined individual and group psychotherapy. International Journal of Group Psychotherapy, 38(1), 47-61.
- Taber's Cyclopedic Medical Dictionary. (1989). Sixteenth edition. Philadelphia: F. A. Davis Company.
- Tieman, A.R. (1991). Group treatment for female incest survivors using TFA Systems (tm). Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Trifiletti, R. J. (1984). The psychological effectiveness of pain management procedures in the context of behavioral medicine and medical psychology. Genetic Psychology Monographs, 109(2), 251-278.
- Turk, D.C. and Holzman, A.D. (1986). Commonalities among psychological approaches in the treatment of chronic pain: Specifying the meta-constructs. In A.D. Holzman and D.C. Turk (Eds.), Chronic pain: A handbook of psychological treatment approaches (pp.257-267). New Jersey: Pergammon Press.
- Turk, D.C. and Holzman, A.D. (1987). Chronic pain: Interfaces among physical, psychological, and social parameters. In A.D. Holzman and D.C. Turk (Eds.), Chronic pain: A handbook of psychological treatment approaches (pp.1-9). New Jersey: Pergammon Press.

- Turk, D.C., Rudy, T.E. and Salovey, P. (1985). The McGill Pain Questionnaire reconsidered: Confirming the factor structure and examining appropriate uses. Pain, 21(4), 385-397.
- Turner, J. A. and Romano, J. M. (1990). Cognitive-behavioral therapy. In T. W. Miller (Ed.), Chronic pain (pp.1711-1721). Connecticut: International Universities Press, Inc..
- Uematsu, S., Hendler, N., Hungerford, D., Long, D. and Ono, N. (1981). Thermography and electromyography in the differential diagnosis of chronic pain syndromes and reflex sympathetic dystrophy. Electromyography and Clinical Neurophysiology, 21(2-3), 165-182.
- van der Meer, Antonia. (1990). Relief from chronic headache. New York: Dell Publishing.
- Varni, J.W., Jay, S.M., Masek, B.J. and Thompson, K.L. (1986). Cognitive-behavioral assessment and management of pediatric pain. In A.D. Holzman and D.C. Turk (Eds.), Pain management: A handbook of psychological treatment approaches (pp.168-192). New York: Pergammon Press.
- von Baeyer, C.L., Johnson, M.E. and McMillan, M.J. (1984). Consequences of non-verbal expression of pain: Patient distress and observer concern. Social Science Medicine, 19(12), 1319-1324.

- Walker, Judith. (1991). How pain hurts and why massage helps! Massage Magazine, 30, 26-30.
- Weiner, R.S. (1990). Pain management: Counselors help clients handle pain. The Advocate: American Mental Health Counselors Association Newsletter, 14(3), 14.
- Weiner, R. S. (1991). Assessing chronic pain through personality characteristics. The Advocate: American Mental Health Counselors Association Newsletter, April 1991, 9.
- Weisberg, M.B. and Page, S. (1991). Diagnostic issues and personality variables in coping with treatment for life-threatening illness. In T. W. Miller (Ed.), Chronic pain (pp.279-306). Connecticut: International Universities Press, Inc..
- Weisenberg, Matisyohu. (1977). Pain and pain control. Psychological Bulletin, 84(5), 1008-1044.
- Whitehead, W. and Kuhn, W.F. (1990). Chronic pain: An overview. In T. W. Miller (Ed.), Chronic pain (pp.5-48). Connecticut: International Universities Press, Inc..
- Williams, S.L. and Kinner, P.J. (1991). Performance and non-performance strategies for coping with acute pain: The role of perceived self-efficacy, expected outcomes, and attention. Cognitive Therapy and Research, 15(1), 1-19.

- Wise, T.N. and Rosenthal, J.B. (1982). Depression, illness beliefs and severity of illness. Journal of Psychosomatic Research, 26(2), 247-253.
- Wise, T. N., Mann, L. S., Mitchell, J. D., Hryvniak, M. and Hill, B. (1990). Secondary alexithymia: An empirical validation. Comprehensive Psychiatry, 31(4), 284-288.
- Worthington, E. L. (1978). The effects of imagery content, choice of imagery content, and self-verbalization on the self-control of pain. Cognitive Therapy and Research, 2(3), 225-240.
- Wu, W. and Smith, L.G. (1987). Pain management: Assessment and treatment of chronic and acute syndromes. New York: Human Sciences Press, Inc.
- Zarkowska, E. and Philips, H.C. (1986). Recent onset vs persistent pain: Evidence for a distinction. Pain, 25, 365-372.

VITA

GERALDINE E. VINGELIS  
5534 Ridgeton Hill Court  
Fairfax, Virginia 22032  
(O) 703-352-1244 (H) 703-425-8917

Licensed Professional Counselor, State of Virginia  
Certified Clinical Mental Health Counselor, National Academy  
for Certification of Clinical Mental Health Counselors,  
Alexandria, Virginia

EDUCATION

Ed.D., Counselor Education - Virginia Polytechnic  
Institute and State University, Falls Church Graduate  
Center, Falls Church, Virginia. May, 1993.

M.A., Psychology - Clinical/Counseling. George Mason  
University, Fairfax, Virginia. May 1981.

B.A., Psychology - George Mason University, Fairfax,  
Virginia. January 1978.

Certificate in Gerontology - George Mason University,  
Fairfax, Virginia. May 1981.

Certificate in Clinical Hypnosis - Associate Trainers  
in Clinical Hypnosis, Syosset, New York. February  
1985.

PROFESSIONAL EXPERIENCE

DIRECTOR/COUNSELOR - 1985 to Present. Private  
practice, the Center for Counseling & Development,  
Fairfax, VA. Individual and group counseling with  
adolescents, young adults, older adults, the elderly,  
couples and families. Services offered with diverse  
issues such as relationship and communication  
difficulties, coping with separation and divorce,  
anxiety/depression, alternative lifestyles, chronic  
pain/illness, ACOA/ACDF issues, career issues, and  
stress management. Hypnosis is available for a number  
of difficulties. Psychological, educational and  
vocational assessments are available. Recognized  
provider of supervision for counselors seeking  
licensure in the state of Virginia, and for

certification as Certified Clinical Mental Health Counselors.

COUNSELOR/CONSULTANT - 1981 to 1985. Professional Counseling Centers, Falls Church and Manassas, VA. Individual and group counseling with couples, adolescents, young adults, the elderly and families. Psychological assessments and evaluations provided, maintenance of in-house records.

INTERN/VOLUNTEER - 1980-1981/1984-1985. Woodburn Center Community Mental Health, Annandale, VA. Graduate work under an LCSW on the Geriatric Unit. Counseling of clients on a short/long-term basis and on an outreach/ in-house basis. Weekly student/staff/volunteer meetings. Co-leader of group working with families with relatives in long-term care facilities.

Under the supervision of a LPC/MSW, Woodburn Emergency Services Unit. Crisis intervention services for clients on a walk-in basis, as well as telephone intervention. Counseling of clients on a weekly basis, short term. Conducted intelligence and personality assessments of adult clients, responsible for evaluation. Volunteer on the Geriatric Unit, provided counseling services on an outreach basis to individuals in long-term care facilities.

VOLUNTEER - 1978 to 1984. Haven of Northern Virginia, Annandale, VA. Organization that offers emotional support to individuals and families who are dealing with a terminal illness or recent death. Positions held: Caseworker/Listener, Casework Advisor, Interviewer, Group Leader, Group Co-Leader, Administrative Assistant to the Director, Assistant Director of Recruitment and Training, Member of the Board of Haven.

CO-CHAIR, ADULT DEVELOPMENT AND AGING TASK FORCE - 1985 to 1986. Task force of American Mental Health Counselors Association. In 1984 to 1985 was a working member of same. Goal - to assess knowledge of membership on issues of adult development and aging. Developed survey for membership, evaluated same and published results.

ADJUNCT PROFESSOR - 1988 to Present. Northern Virginia Community College, Manassas, VA. Two years full time,

two years part-time, teaching Psychology. Introductory Psychology, Lifespan Development, Human Relations, Human Sexuality, Applied Psychology, Business/Industrial Psychology and Abnormal Psychology.

ADJUNCT PROFESSOR - 1988. George Mason University, Fairfax, VA. Graduate level course, Analysis of the Individual. Designed to provide working knowledge of testing instruments in the field of personality testing.

TEACHING ASSISTANT/SUPERVISOR - 1984. George Mason University, Fairfax, VA. Assistant in graduate level counseling courses, as well as with individuals doing post-graduate work on the Virginia State license as a Professional Counselor. Responsible for teaching/refining counselor skills, working with visual/audio tapes, and provided off-site supervision on a one-to-one basis of internship work.

TEACHER - 1982 to 1986. Adult Education, Fairfax County Public Schools, Fairfax, VA. Assertiveness Training, Couples Communication, Stress Management/Assertiveness, Relaxation Techniques, Effective Communication. Conceptualized, designed, structured, implemented and instructed in these courses.

1977 to 1982. Substitute, Fairfax County Public Schools, Fairfax, VA and St. Michael's Catholic School, Annandale, VA. Kindergarten through eighth grade.

#### PROFESSIONAL ASSOCIATION POSITIONS HELD

Chairperson. Adult Development & Aging Task Force. 1986-1987.

Co-Chair. No. Va. VMHCA Political Committee for LPC's. 1986-1987.

LPC Liaison. Northern Virginia Counselor's Association. 1986-1988.

LPC Liaison. Northern Virginia Counselor's Association Executive Board. 1988-1989.

Virginia Adult Development & Aging State Division Coordinator. 1988-1989.



PROFESSIONAL MEMBERSHIPS

American Counseling Association

- American Mental Health Counselors Association

Virginia Counselors Association

- Virginia Clinical Counselors Association
- Northern Virginia Counselors Association
- Northern Virginia Clinical Counselors Association
- Mental Health Association of Northern Virginia
- National Chronic Pain Outreach Association

WORKSHOPS/SEMINARS CONDUCTED

Assertiveness Training

Chronic Pain from Perspective of Patient and Counselor

Conflict Management

Coping with Institutionalization of Aged Relatives

Couples Communication

Effective Communication

Grief & Loss in Separation/Divorce

Holiday Blues

Relaxation & Guided Imagery

Relaxation Techniques

Sibling Rivalry

Stress Management/Assertiveness

*Geraldine E. Kingels*