# RATIONAL HYPNOTHERAPY:
# A THERAPEUTIC INTERVENTION FOR ANXIETY NEUROSIS AND PANIC ATTACKS

by

PHILIPPA J. LEWINGTON
B.A. (Honors), The University of Alberta, 1980

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS
in
THE FACULTY OF GRADUATE STUDIES
Department of Counselling Psychology

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA
April, 1987

In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of Counselling Psychology

The University of British Columbia
1956 Main Mall
Vancouver, Canada
V6T 1Y3

Date April 20, 1987

## Abstract

The efficacy of a rational hypnotherapeutic intervention for anxiety states and panic attacks is the focus of this research.

Based on a single subject research design, the co-researcher was asked to complete pre-therapy, during and post-therapy assessments of personality, self-concept, mood states, stress and physiological symptoms. The baseline period was two weeks and therapy lasted 13 weeks. There were two weeks of post-therapy measures and finally a six-month follow-up study.

The intervention was comprised of progressive relaxation, guided imagery, a cognitive restructuring and behaviour rehearsal based on an A-B-C-D-E paradigm. The subject examined her self-defeating or irrational thoughts in critical incidents and her subjective emotional behavioural and physiological reactions. She was then asked to substitute her own new more rational thoughts in the same situation.

Post-therapy results from the objective tests and self-reports demonstrated significant improvement in almost all areas. Following the rational hypnotherapeutic intervention the co-researcher showed a normal personality profile, increased self-concept, improvement in mood states and a significant reduction in stress and physiological symptoms. This improvement was maintained in the six-month follow-up.

Rational hypnotherapy is effective, relatively short-term and encourages the client to play an active role in finding new ways to deal effectively with problems and accept control over his/her own life.

TABLE OF CONTENTS

Page

# LIST OF TABLES

# LIST OF FIGURES

# CHAPTER I

## INTRODUCTION TO THE STUDY

Anxiety and panic attacks are becoming increasingly prevalent in our North American society. Estimates range from two million (Gorman, Liebowitz & Klein, 1984) to as many as 10 million Americans (Fishman & Sheehan, 1985) who experience acute, unprovoked anxiety attacks. These spontaneous attacks are usually associated with feelings of dread and doom. Dizziness, choking sensations and rapid heart rate lead the victim to believe s/he is suffering a heart attack or losing control. Increased frequency of attacks leads to phobic avoidance in which the victim associates the attacks with specific settings or actions such as eating in restaurants or driving a car. Fear of attacks and avoidance behaviours may come to dominate the victims' daily life, restricting or even eliminating normal, social activities in severe cases.

A growing awareness and knowledge of anxiety and panic attacks has led to the establishment of a wide variety of treatment plans for this disorder. For several decades psychoanalysis and behaviour therapy reigned as the premiere treatments in the field. More recently however, cognitive therapies, drug treatments and hypnotherapy have become recognized as viable and in some cases, preferable alternative approaches. In recent years there has been an emphasis placed on successfully combining these therapies

rather than employing only one set of techniques. Pharmacotherapy, used to suppress attacks, can stand alone or be employed in conjunction with behaviour or cognitive therapies. Hypnotherapy can be combined as a useful component with other interventions such as cognitive therapy. Psychoanalysis, because of its temporal commitment and its financially taxing nature is no longer a preferred approach to anxiety disorders. Clinicians from most schools seem to agree that anxiety disorders can be treated successfully and in most cases, concluded after short-term therapy. Lengthy psychotherapy may not be appropriate except in cases where more severe psychological problems underlie the anxiety.

## Nature of the Study

Since many different theoretical approaches claim clinical success in the treatment of anxiety disorders, the client and/or the therapist have choices in the methods which may be most effective. The client can 'shop around' or seek a particular type of therapy. A flexible therapist can assess the client and his/her individual concerns and devise a unique program to meet the client's special needs. Some clients may respond well to drugs, others to behaviour or cognitive therapy without medications and others will do best with both.

Hypnotherapy may represent the standard psychotherapeutic approach of a clinician or it may act as an

effective adjunct to another approach. It has been used with behaviour therapy (Clarke & Jackson, 1984), with cognitive therapy such as Ellis' Rational Emotive Therapy (Tosi, 1974) and as an autonomous therapy (Erickson & Rossi, 1979).

## Purpose of the Study

This study was developed to evaluate the effectiveness of rational hypnotherapy in reducing or eliminating anxiety states. The single case experimental design will limit the scope of our findings and will not permit generalizations to be drawn from the results. However, and perhaps more importantly, this approach affords, as a second objective, the opportunity to propose and design a therapeutic strategy which enables the rational, cognitive capacities of the client to be combined with conscious and unconscious learnings via hypnotherapy in a manner which allows the client to explore and make changes in his/her own individual way and in a variety of different ways. This approach is not rigidly structured but rather provides guidelines which facilitate the client's active participation and with flexibility which encourages and values the client's unique personality and current situation.

## Hypotheses Tested

Hypothesis 1: There will be statistically significant difference in scores from objective assessment (Minnesota Multiphasic Personality Inventory, Tennessee Self Concept Scales, Profile of Mood States) prior to therapy and the change scores following the treatment program. Specifically, the change scores will reflect improved self-esteem and self-concept, reduced self-criticism, a personality profile more closely approximating the normal or mean scores, and improvement in mood states (i.e. reduced scores in the subscales tension/anxiety, depression/dejection, anger/hostility, and increased scores in the subscale vigor).

Hypothesis 2: There will be a significant difference in subjective assessment of symptoms (Subjective Stress Inventory, Physiological Symptoms Scale) preceding and following therapy completion. Specifically, the change scores will indicate a reduction in perception of stress as well as fewer and less severe physiological reactions.

## Rationale for Hypotheses

Clinical research implementing rational therapy and hypnosis have reported success in reducing emotional, physiological and behavioural problems (Reardon, Tosi & Gwynne, 1977; Boutin, 1978; Gwynne, Tosi & Howard, 1978;

Howard, Reardon & Tosi, 1982; Tosi, Howard, Gwynne, 1982; Blumenthal, 1984).

Anxiety disorders have been demonstrated to be highly treatable utilizing approaches ranging from relaxation techniques to behaviour therapy to psychopharmacology (Frankel, 1976; Spiegel & Spiegel, 1978; Erickson & Rossi, 1979; Smail, 1984; Gorman, Liebowitz & Klein, 1984; Ballenger, 1984; Garrett & Waldmeyer, 1985; Beck & Emery, 1985).

Hypnotherapy, employed as an autonomous therapy or in collaboration with other therapeutic methods has been demonstrated to make use of a natural phenomenon to enhance, quicken, intensify and consolidate learnings in therapy (Cheek & LeCron, 1968; Haley, 1973; Frankel, 1976; Kroger, 1977; Erickson & Rossi, 1979; Bandler & Grinder, 1981; Araoz, 1985).

The present research will take advantage of the progress made in the use of rational- and hypno- therapy while offering a safe, trusting and traditionally less-directive means for the client to discover learnings in her own unique way and at a pace appropriate to her needs and goals. The client will be directed through relaxation exercises and guided imagery but during actual therapy she will be allowed to let her subconscious mind choose the events and situations which need to be brought to new levels of awareness. The

therapist will not always be aware of these events and situations and the client will not be obliged to divulge them unless she volunteers to do so. This approach follows the philosophy that "effective therapy does not depend on the clinician's understanding of the process leading to such beneficial change as Watzlawick (1978), Rossi (Erickson & Rossi, 1979), and others have reminded us," (Araoz, 1985, p.42).

## Significance of the Study

The aim of this research is two-fold. It is intended to test the effectiveness of a cognitive hypnotherapeutic intervention as a treatment for anxiety disorders. The widespread nature of anxiety disorders (Gorman, Leibowitz & Klein, 1984; Fishman & Sheehan, 1985; Garrett & Waldmeyer, 1986) requires therapists to be prepared to treat numerous such cases. The intention of this study is not to isolate the 'perfect' therapy. Rather, it promotes a three-part philosophy. Every therapist must have an approach for dealing with clients presenting anxiety symptoms. Secondly, that approach should be tested and proven effective. Finally, and equally importantly, the therapist must be flexible in choosing an approach which is consistent with each individual clients' needs and personal style. In other words, one formula can not be used in every single case. The truly

talented therapist has an ability to determine which of the proven approaches and techniques or which combination of them, will best serve the client's special needs as effectively and as quickly as possible. Therefore, a new cognitive hypnotherapeutic approach is being tested as a possible option on the therapist's menu for treating anxiety disorders.

A second goal of this study is to experiment with a single case research design. This represents an attempt to overcome the pitfalls and limitations of the traditional case study. The present researcher will attempt to rectify common errors outlined by Nugent (1985) and respond to the call for sound, single case methodology (Hersen & Barlow, 1976; Kazdin, 1982; Nugent, 1985; Mott, 1986). By following strict guidelines for single case research and thereby enhancing its internal and external validity, single case research designs may take a place as a recognized and valued methodology alongside the traditional control group designs. The practicality of single case research is obvious and it would allow practitioners a medium for presenting unique clinical cases based not on anecdotal descriptions but on a sound methodological framework.

## Limitations of the Study

The primary limitation of this research is that, as a single case design, generalizations to be drawn from the

results must be limited. If the chosen therapy is successful in this particular case, we cannot assume that it will be successful in all cases. However, strict adherence to methodology guidelines should help eliminate unexplained or unpredicted factors' effect on the outcome.

Practical and ethical considerations prevented the researcher from choosing an A-B-A-B design which would have strengthened the research findings. Similarly, these same considerations required that the baseline condition be shorter than desired.

Tawney & Gast (1984) cite ethical considerations as an acceptable motive for bypassing the usual 'stability is clear' rule, stating that under these conditions "shorter baseline conditions are understandable and tolerated, though the demonstration of experimental control may be weakened." (p. 160).

# CHAPTER II

# REVIEW OF THE LITERATURE

## Anxiety

Anxiety is the human beings' built-in mechanism for coping. It is a disturbing and unpleasant sensation which serves as a warning signal to some impending risk or danger. It's effects may be biochemical (as in the form of adrenaline release), physiological (increased heart rate, sweating, dizziness), cognitive (messages to self such as "I may embarrass myself"), emotional (such as feelings of terror), motivational (desire to flee a threatening situation) and/or behavioural (such as being unable to speak). Mild levels of anxiety can protect us and even prompt increases in individual performance levels. Thus, anxiety can be seen as an inevitable experience for any human being and not an indication of illness or abnormality (Smail, 1984).

## What is anxiety?

What precisely is anxiety and where does it cross the boundary between being functional and healthy, and being pathological? Hamilton (1982) describes anxiety as a particular mood, a modified and continuous state of fear which can be normal (in response to obvious threats) or pathological in which there is no external threat or there is a grossly exaggerated reaction, disproportionate to the cause. He defines an anxiety state or anxiety neurosis as

representing a pattern of symptoms which are dominated by a pathologically anxious mood.

According to Kroger (1977), "anxiety is a universal human response due to hidden tension. It becomes pathologic when, without provocation or awareness, fears are experienced" (p. 349).

Speigel and Speigel (1978) describe developing anxiety as having a snowballing effect. Periodic attacks develop into a cycle in which the individual recognizes a situation which makes him/her anxious and the physical symptoms which accompany it. "He then begins to respond to the physical signals with worry, which then provokes even more physical discomfort. This sets up a feedback cycle, which escalates into a major and immobilizing state of anxiety" (p. 230).

Lader (1982) suggests that an "ineffable feeling of foreboding is the core of anxiety" (p. 11).

Beck (1985) posits that anxiety "is generally considered a normal reaction if it is aroused by a 'realistic' danger and if it dissipates when the danger is no longer present. If the degree of anxiety is greatly disproportionate to the risk and the severity of possible danger, and if it continues even though no objective danger exists, then the reaction is considered abnormal" (p.30).

Researchers in the field of anxiety and anxiety disorders often complain about the casual, flexible and

ambiguous use of the terminology and of the term 'anxiety' in particular (Paul, 1969; Beck & Emery, 1985).

May, in his 1950 publication, The Meaning of Anxiety declared that he and many other theorists on anxiety (Freud, Goldstein, and Horney were cited) differentiate fear, "a reaction to a specific danger" versus anxiety which is "unspecified, vague, objectless" (p. 190). Specifically, May defined anxiety as "the apprehension cued off by a threat to some value which the individual holds essential to his existence as a personality" (p. 191).

Clarke & Jackson (1983) utilize three response systems (self-report, behavioural and physiological) for measurements of fear and anxiety. The difference between the two, they claim, is that anxiety covers "the many effects which flow from adverse and threatening experiences" whereas fear represents "the effects generated by unlearned ("innate") threats as well as in connection with phobias"(p. 169).

Chaplin (1975), noting that the two terms are loosely used synonymously, describes fears as a "strong emotional reaction involving subjective feelings of unpleasantness, agitation and desire to flee or hide . . . fear is a reaction to a specific present danger; anxiety to an anticipated danger"(p. 196).

Beck & Emery (1985) suggest that "anxiety may be distinguished from fear in that the former is an emotional

process while fear is a cognitive one. Fear involves the intellectual appraisal of a threatening stimulus; anxiety involves the emotional response to that appraisal . . . Fear then, is the appraisal of danger; anxiety is the unpleasant feeling state evoked when fear is stimulated" (p.9). Elaborating on this point, the authors posit that one can label fear as rational or irrational, logical or illogical since it is based on logic, reasoning and sensible assumption or the opposite, faulty reasoning and assumptions. Anxiety, however, cannot be labelled as realistic or unrealistic since "it refers to an affective response not to a process of evaluating reality" (p. 10).

Finally, panic disorder has been recognized as a distinct entity under anxiety disorders in the DSM-III (1980). Panic disorder involves repetitive, spontaneous panic attacks creating an overwhelming, subjective feeling of terror. In the DSM-III (1980) the criteria for diagnosing panic disorder are outlined (Appendix A). Beck & Emery (1985) describe panic as "an intense, acute state of anxiety associated with other dramatic physiological, motor and cognitive symptoms. The physiological correlates of panic are an intensified version of those of anxiety" (p.10).

## Classifications

The American Psychiatric Association's Diagnostic and

Statistical Manual (DSM-III, 1980) classifies anxiety disorders under three categories:

1) Phobic disorders (or phobic neuroses) include agoraphobia with and without panic attacks, social phobia and simple phobia.
2) Anxiety states (or anxiety neuroses) incorporate panic disorder, generalized anxiety disorder and obsessive compulsive disorder (or obsessive compulsive neuroses).
3) Post-traumatic stress disorder may be acute, chronic or delayed or atypical anxiety disorder.

It is interesting to note that panic disorder did not become classified as a distinct and separate entity under the anxiety states sub-heading until the 1980 revision of DSM-III. For years this common mental health problem has been classified under the general term of 'anxiety'. It is not surprising then that "the tradition of lumping all disorders into large categories, with little phenomenologic distinction, blurred research finding regarding the nature of pathologic anxiety" (Gorman, Leibowitz & Klein, 1984, p.3).

## Research Issues

Results of investigations into the etiology of anxiety and panic disorders appear to be challenging psychotherapy as

the fundamental treatment and psychiatric use of biological treatments is prompting a reassessment of anxiety states (Hamilton, 1982). Pitts & McClure's (1967) controversial studies using sodium lactate injections may increase our understanding of the biochemical mechanisms operating in panic disorder. In a 1969 study, Pitts attributed anxiety to excessive lactic acid or deficient calcium. Pharmacotherapy is becoming increasingly popular with mental health professionals treating anxiety and panic attacks. Tricyclic antidepressants such as imipramine and monoamine oxidase inhibitors such as phenelzine block spontaneous panic attacks but can be associated with high blood pressure and/or drowsiness. A new drug on the market, a benzodiazepine called alprazolam reportedly provides faster relief and has fewer side effects. Ballenger (1984) reported successful treatment of phobia using these drugs but other experts are less certain about how alprazolam works (Fishman & Sheehan, 1985).

Beck & Emery (1985) caution that "in view of the strong evidence of cognitive and other psychological factors in this disorder as well as behavioural methods for relieving it, it seems premature to make a commitment to an exclusive organic etiology" (p.85).

Clinical research studies into the origins, development and treatment of anxiety disorders by behaviourists (Clarke &

Jackson, 1983; Turner, 1984) and cognitive therapists (Tosi, Howard & Gwynne, 1982; Beck & Emery, 1985) continue to help refine our knowledge of this disorder and test the efficacy of the treatments. Continued studies should lead to further refinement of the individual disorder classifications as well as to an accurate prediction of which clients will respond to pharmacological therapy, which will benefit from short-term therapy and which ones require longer term psychotherapy. The role of hypnosis as a facilitator of the techniques should also become clearer (Mott, 1986).

## Clinical Issues

The diverse theoretical approaches to anxiety disorder manifest equally varied clinical approaches to its treatment. While the disorder is considered to be highly treatable in practically all cases, the client may receive short or long term therapy, with or without medication, may lie motionless on a couch, or actively change his/her personal situation. Each method claims to be valid, reliable and successful.

Theorists concerned with the biological and genetic components of anxiety disorder may call for a revision in the clinical approach to incorporate newer, more effective medications. There seems to be a general consensus among psychotherapists that the therapist should intervene to help the client find more alternatives in life, to produce changes

which allow the client to grow and develop (Haley, 1973). Drugs which ease anxiety may in fact, block the recovery process by permitting the sufferer to avoid confronting and overcoming their fears. The client can learn to experience and control the anxiety using relaxation techniques, deep breathing, self-hypnosis and biofeedback (Fishman & Sheehan, 1985).

In the 1950's and 1960's, psychoanalytic and behavioural approaches dominated in the field of anxiety disturbances. Since that time there has been a move towards effective short term therapy and away from lengthy and expensive analysis sessions. Cognitive and behavioural therapists continue to design and refine programs which help clients deal with anxiety and panic attacks in a relatively short period of time. The following section explores and investigates hypnotherapy as it is applied alone and in conjunction with some of the prominent clinical approaches to anxiety disorder.

## Hypnosis and Hypnotherapy

"At the most general level, the goal of the hypnotist is to change the behaviour, sensory response, and consciousness of another person. A subsidiary goal is to extend that person's range of experience; to provide him with new ways of thinking, feelings and behaving. Obviously, these are also

the goals of therapy. Both hypnotist and therapist seek through the relationship with a person to introduce variety and extend the range of his abilities" (Haley, p. 21).

What is Hypnosis?

From Mesmer, de Puysegur, Durand de Gros, Charcot and Janet through to modern day hypnotists and hypnotherapists, events in the development of hypnosis have been colourful and controversial, (Cheek & LeCron, 1968; Frankel, 1976; Hilgard, 1977; Spiegel & Spiegel, 1978). However, one step taken by an English physician in the 1840's has played a significant role in the field's continuing struggle for recognition and professional acceptance. James Braid (Kroger, 1977) borrowed from the Greek word for sleep 'hypnos' and coined the term 'hypnotism'. By the time Braid realized that a hypnotic state represented a near opposite to sleep rather than a parallel to it, it was too late. This term leads to misunderstandings even today. What Braid, and others since have realized is that the hypnotic state or trance actually involves almost complete absorption or focusing of one's attention by an idea, image or sensation. This degree of absorption creates an unawareness or masking of events normally monitored by the conscious mind so that distractions to learning become minimized. At the same time, awareness may heighten on processes normally outside of conscious influence. For

instance, one's attention may be directed to physiological changes, such as sensations in the hands or rate of breathing which are constant events but normally outside our conscious awareness. Research has also demonstrated differences between sleep and hypnotic trance include loss of reflex and loss of consciousness in sleep but not in trance state, (Cheek & LeCron, 1968). Some researchers (Posner, 1973; Sternberg, 1975) believe that cognitive activity, outside awareness precedes and influences conscious psychological processes. In other words, the unconscious mind acts as a filter or even as a censor, restricting and controlling what enters conscious awareness. Milton Erickson's clinical work demonstrates a reliance on the unconscious mind's ability to choose the appropriate time to allow an idea or piece of information to become accessible to the conscious awareness of his patient and is described in Erickson's (1980) well-known phrase, 'trusting the unconscious.'

It is important to recognize that trance is not a foreign state imposed on the client by a therapist but is in fact a very natural phenomenon which occurs spontaneously and which replicates natural mental processes while respecting and promoting individuality. For that reason, Araoz (1985) sees hypnosis as "ideal to faciliate the process by which people learn to activate their own unique resources and potentials to resolve their own problems in their own ways." (p.x-xi).

Dissociation

Janet (1907) introduced the concept of dissociation which refers to the human ability to operate mentally on more than one level at a time. In fact, Janet actually established dissociation as a signifier of pathology (Sanders, 1986).

Hilgard (1973) has explored the dissociative process, reviving and revising Janet's ideas in an attempt to understand how altered states of consciousness occur and how they can be maintained. In 1977, Hilgard proposed a "neo-dissociation theory of hypnosis in which dissociation could be viewed on a continuum of behaviour from normal to pathological" (p. 84-85). He also described hypnosis as a focusing and dissociative process (Hilgard, 1977).

Gruenewald (1986) recognizing dissociation as a description of processes which can not be observed directly, states that "dissociation phenomena manifest themselves in what appears to be memory loss and behavioural change on a broad spectrum from normal to pathological, with dissociation proper being considered a distinct form of psychopathology of greater or less severity" (p.116).

Dissociation then can be seen as a continuum. For example, at one end of this continuum it can be utilized via hypnotherapy to aid in personal growth and development (Araoz, 1985) by providing temporary mental journeys or escapes and it can be used as a technique for interrupting

habitual mental processes. It is a state, like reverie, whereby one can detach oneself from the immediate environment but still function adequately and appropriately opening up new awareness to change. At the other end of the continuum, dissociation can be demonstrated by multiple personalities in which one part operates completely independently and often without the knowledge of the other parts. This could be described as pathological dissociation as opposed to the healthier example of adaptive differentiation (Watkins, 1986).

## Hypnosis and Psychotherapy

In 1980, researchers Shevrin and Dickman used the results of their studies to assert that "no psychological model that seeks to explain how human beings know, learn, or behave can ignore the concept of unconscious psychological processes" (Tosi & Baisden, 1984, p. 160). By using hypnosis and learning more about the potential of the unconscious mind, the combination of hypnosis and psychotherapy may increase the chances of reaching a successful therapeutic goal. "By itself, it (hypnosis) is not a treatment. It is the counselling and therapy that is important" (Barber, 1986, p. 28). Frankel, in his foreword to Clarke and Jackson (1983) also agrees that "the therapeutic outcome matters more than the consequences of an induction procedure or one's

commitment to a theoretical position (p.ix). Diamond (1986) cautions that "hypnosis is not a therapy in itself and the subsequent dimensions may be facilitative or inhibitory among various theoretical and technical orientations to treatment" (p. 239). In other words, hypnosis is simply another means to an end, but is not therapy in and of itself. Hypnotherapy, or hypnosis used in conjunction with psychotherapy can lead to very successful therapeutic results. According to Diamond (1986), "the advantages of hypnotic training occur regardless of whether the clinician continues to employ direct or indirect hypnotic procedures with clients" (p. 238). Milton Erickson's techniques exemplified successful hypnotherapy using indirect hypnotic communication in which there was no formal trance induction ritual.

The practice of hypnotherapy has changed significantly over the past thirty years. A renewed interest has led to a more natural and less directive application of hypnotherapy. People often believe that the 'hypnotist' will control them and they must surrender to his will. Although this belief persists, hypnotherapy today represents a more collaborative effort in which the therapist uses his/her skills to facilitate the client's greater learning and understanding of him/herself.

## Hypnosis and Anxiety

Since anxiety disorders are relatively widespread in our

western culture, many clinicians who practice hypnotherapy have applied it to the treatment of anxiety states, panic attacks and phobias (Frankel, 1976; Erickson & Rossi, 1979; Tosi, Howard & Gwynne, 1982; Clarke & Jackson, 1983). In each case, these researchers were able to utilize hypnotic techniques therapeutically and in conjunction with each one's differing theoretical position. Many therapists who do not practice formal hypnotherapy, do employ relaxation and guided imagery techniques as a component of their treatment plan for their anxious or distraught clients.

Kroger (1977) recognizes anxiety as a human universal in which we react to increasing stresses and demands which may be combined with feelings of insecurity and inadequacy. However, he believes that repressed anxiety is much more difficult to treat due to the build up of defensive symptoms which block the original conflict or emotion from awareness. Kroger (1977) categorizes these indirectly expressed anxiety reactions into three types. Physiologic conversions lead to psychophysiologic or psychosomatic illness, fatigue states and debilitated conditions. These may be corrected by psychotherapy with or without hypnosis. In the case of hysterical reactions resulting from a traumatic experience, hypnosis can be used in specific ways to relieve expectations of anxiety in similar situations. Psychological conversions

originating with anxiety, become psychological symptoms and reactions such as phobias, depression and hypochondriasis. Hypnotherapy may be used to help reevaluate the client's needs underlying these symptoms.

In Frankel's (1976) analysis of case histories reporting treatment of phobic behaviour, he used hypnosis with imaginal desensitization and claims that in each case the clients learned more quickly than with his routine deconditioning procedure. Clients also reported similarities between their exposure to hypnosis and their experience of their symptoms but found that in hypnosis the experiences were controllable and reassuring as opposed to the previously fearsome experiences without hypnosis. Cheek and LeCron (1968) describe their employment of hypnotherapy to treat anxiety and fear associated with death and dying, childbirth, insomnia, traumatic experiences, dental work and even hypnosis itself.

Meer (1985) writes about the importance of self-hypnosis as a technique for phobic sufferers to deal with anxiety so that fears may be experienced and controlled rather than avoided.

Miller (1986) presents three case reports in which he successfully utilizes brief reconstructive hypnotherapy for anxiety states by increasing the clients coping abilities or by reconstructing the traumatic situations which led to the anxiety state. In the first case, increasing the clients coping mechanism is partially successful but her anxiety

dissipated after she regressed to a particularly upsetting experience in childhood and was able to transform her distress as a victim into active expression of her outrage. This approach claims to alleviate anxiety symptoms "without having to work through elaborate heirarchies of anxiety provoking events" (Miller, p. 145).

Hypnosis and Rational therapy

Hypnosis has been used in collaboration with Ellis' Rational Emotive Therapy (RET) and variations of RET in several different ways. In essence, RET attempts to discover ineffective, self-defeating, irrational thoughts, help the client recognize these irrational beliefs and their resulting emotional, cognitive and behavioural consequences and to select and substitute more rational thoughts. "The main subgoals of RET consist of helping people to think more rationally (scientifically, clearly, flexibly); to feel more appropriately; and to act more functionally (efficiently, undefeatingly) in order to achieve their goals of living longer and more happily" (Ellis & Bernard, 1985, p. 5).

Hypnosis can be used to rehearse scenes in which rational thoughts replace previously irrational ones, to find and make use of hidden resources within the self, and to reinforce positive self-statements.

Examples of therapies combining hypnosis and RET include

Rational Suggestion Therapy (Blumenthal, 1984) and Rational Stage Directed Hypnotherapy (RSDH) (Tosi, 1974). In accordance with Ellis' philosophy, these two appraoches agree that "thought is the genesis of emotional and behavioural expression" (Araoz, 1985, p. 11) so that changes must be aimed at the beliefs and value system, not behaviour or emotion. Having once identified irrational thoughts and beliefs, Blumenthal (1984) introduces self-hypnosis so that the client may rehearse new approaches using his imagination and suggestions in a relaxed state.

"The cognitive experiential model (RSDH) views hypnosis as a naturally occurring phenomenon that may be self-induced or other-induced, depending on the degree to which a person is receptive, suggestible, or willing to explore the possibilities of the functions of the mind in either a systematic or a nonsystematic fashion. Hypnosis is largely characterized by concentration, focused awareness, reflective thought, relaxation, and selective attention or inattention. Any of these processes can be directed toward or away from information or facts existing in the person and environment" (Tosi & Baisden, 1984, p. 164). In RSDH there are six developmental stages (awareness, exploration, commitment, implementation, internalization and behavioural stabilization) and within these stages there are experiential themes. An ABCDE paradigm "defines the self as a complex set

of cognitive, affective, physiological and behavioural functions occurring within a social environment" (Tosi & Baisden, 1984, p. 155). These researchers employ a hypnotic-imagery modality to amplify the cognitive restructuring process.

In both of these therapies, hypnosis is teamed with rational/cognitive approaches and serves to heighten and intensify the psychotherapeutic experience.

# CHAPTER III

# METHODOLOGY

## Subject

This research was conducted in the form of a single case research design. The subject was a woman, in her early forties, married with three children of ages 15, 19 and 22. She had high school equivalency and was considering applying for a college program. Her husband was away often on business which would last up to eight weeks. She was planning to return to her regular seasonal job which was beginning two months later.

She was seeking therapy for relief from "panic attacks" (her words), sleeping problems, loss of weight and lack of appetite. She described her panic attacks as a tightness in the throat and chest and upset stomach and dizziness experienced at shopping centres, when visiting her sister's home and when driving alone. She was having difficulty falling asleep at night and would awaken often and remain awake for hours. She had dropped in weight from 138 pounds to 124 pounds and was very concerned about this weight loss. She had been to see a medical doctor in hope of finding treatment for her stomach problems as well as disruptions in her menstrual cycle and vaginal infections.

All of these problems had arisen within the two to three

month period prior to her seeking psychotherapy. She had no previous psychiatric history and had never suffered panic attacks, anxiety states or phobias in the past. She described herself as "healthy, energetic, and active" before the panic attacks began. She had not experienced any physical problems in the past and had only seen her doctor for standard medical checkups.

Pre-, During and Post-Treatment Procedures

Prior to active involvement in treatment, the subject (hereafter known as Ann) was asked to complete two sets of pretesting procedures. Two weeks before treatment began, and again one week before treatment began, she filled out the Profile of Mood States (POMS), a Subjective Stress Inventory (designed by the researcher and subject and also referred to as the Personal Stress Experience Inventory) specifically to monitor the subject's unique symptoms and permit assessment of Ann's sleeping patterns, anxiety episodes and appetite loss or increase. The Physiological Symptoms scale was also filled out to provide information on her physical health and physiological reactions such as heart palpitations, fainting and vertigo. Ann continued completing these forms on a weekly basis for the duration of the treatment and for two weeks following treatment termination.

One week before treatment, Ann was asked to do the

Minnesota Multiphasic Personality Inventory (MMPI) and the Tennessee Self-Concept Scales (TSCS). These procedures were repeated following the treatment program and finally for a follow-up assessment six months later.

The first one-hour session with Ann dealt with an introduction to hypnosis, explanation and clarification of any misconceptions or doubts and a preliminary induction. During this hour she also completed the Barber Suggestibility Scale.

## Procedure

This study followed recent guidelines for single case experimental design (Kazdin, 1982; Barlow & Hersen, 1984; Nugent, 1985; Mott, 1986) including continuous assessment, baseline assessment and stability of performance (Kazdin, 1982). Assessment was performed under an A-B-A times-series design (Jones, Vaught & Weinrott, 1977, Hartmann et al., 1980).

The subject came in for weekly sessions lasting one to one and a half hours. Therapy lasted 13 weeks.

The hypnotic induction which was employed involves progressive relaxation with background music (the music is optional and depended upon the subject's preference). The next stage is the 'pleasant scene'in which Ann envisioned herself at a place (real or imaginary) in which she

experienced feelings of comfort, relaxation and contentment. (Normally the subject has selected a place prior to induction and has described it so the therapist can help the client more fully visualize and experience the scene.) Ann was directed to be aware of the positive associations with this place and reminded that she may return to it at anytime. She was then directed to leave the pleasant scene and visualize a red balloon (Walch, 1976). Next to the balloon was a pad of paper and a pen. Ann was invited to write any problems, people, experiences of guilt she wanted to free herself from and put the piece(s) of paper in the basket under the balloon. When she was ready she let the balloon go and watched it climb higher and higher, further and further away carrying the burdens she wished to cast aside.

During the first session there was also an explanation of the A-B-C-D-E theory (Tosi, Howard & Gwynne, 1982) and its application to the therapy.

Table 3-1: Tosi's A-B-C-D-E Paradigm

| | | |
|---|---|---|
| A | - | Situation |
| B | - | Cognition |
| C | - | Emotional response |
| D | - | Physiological concomitant |
| E | - | Behavioral response |

Once the intervention had begun, the experiential application of this method followed the red balloon technique. While in trance, Ann was asked to vizualize a television screen. When she was ready she could turn on the TV screen and visualize or recall an incident, any incident of her choosing in which she experienced negative feelings. By watching the screen, rather than re-living an unpleasant experience, Ann was able to watch herself in a safer, more detached and less emotional way. The A-B-C-D-E components were identified and gave her the opportunity to identify some of her irrational thoughts and self-defeating tendencies. Having done so, Ann would then return to her pleasant scene when she felt comfortable and confident. She was then asked to visualize the same incident but this time substituting more rational thoughts and elimminating self-defeating attitudes. Throughout this sequence, Ann responded to questions by the therapist and described the events and her implementation of rational self-management skills. Occasionally the therapist prompted her for ideas and thoughts which would lead to different behavioural, physiological and emotional responses but most of the time Ann guided the cognitive restructuring and behavioural rehearsal herself. Having recreated the incident and realized new options and possible outcomes, Ann would be asked if she had another incident she wanted to explore. If so, the

hypnotherapy continued, if not she was directed to come out of the trance state, feeling refreshed. Usually a discussion of her reaction to the session followed. (Appendix B).

An audiotape was prepared so that the subject could listen to it each day between appointments. It contained a tape-recording of the relaxation and guided imagery exercises presented in the second interview. Ann was instructed to listen to the tape at night as it was to serve a second purpose of helping her fall asleep and rest more peacefully. It was anticipated that following the initial sessions and after listening regularly to the audiotape, the trance induction would take less time.

## Instruments

The measurements of treatment efficacy were based on data collected from the Barber Suggestibility Scale, MMPI, TSCS, POMS, Subjective Stress Inventory and the Physiological Symptoms Scale.

### The Barber Suggestibility Scale

The Barber Suggestibility Scale (BSS) was administered to the subject prior to treatment (Appendix C).

The BSS (Barber, 1969) involves eight standardized test suggestions with corresponding objective score criterion including post-experimental objective scoring of test

suggestions. Subjective scores are also tallied from the subject's response to a questionnaire of their subjective experience of each of the eight test suggestions.

The subject was assessed on the objective and subjective responses. The objective scores had a maximum total of eight (one for each test suggestion) and the subjective total maximum was 24 points (up to three points for each suggestion).

The eight items are: arm lowering (right arm); arm levitation (left arm); hand lock; thirst hallucination; verbal inhibition; body immobility; post-hypnotic response; and selective amnesia. The subject received a point in each of the items if; the right arm dropped four inches or more; the left arm rose four inches or more; the subject was unable to unclasp her hands; swallowed, moistened lips in response to thirst suggestion; was unable to speak her name; was unable to stand fully erect.

The fourth, seventh and eighth suggestions were scored post-hypnotically receiving one point if the subject commented on having been thirsty during the test; cleared her throat or coughed when the designated cue was presented; and failed to recall one specified item while remembering at least four others.

The subjective questionnaire measured the degree to which the subject experienced each suggestion (i.e. the right

arm felt; not heavy, slightly heavy, heavy, very heavy) and confirmed in the interview following that her response was not simply to follow the instructions or to please the therapist.

The Barber Suggestibilty Scale is significantly correlated with the Stanford Hypnotic Susceptibility Scale, Form A at .62 for the objective portion and .78 for the subjective portion (Ruch, Morgan, Hilgard, 1974).

## The Minnesota Multiphasic Personality Inventory

The MMPI was administered to the subject prior to treatment, immediately following termination of treatment and once again for a six-month follow-up (Appendix D).

The MMPI, the most widely used personality inventory (Anastasi, 1982), consists of 566 statements to which the subject responds with 'true', 'false', or 'cannot say'. Overall, the MMPI yields 13 scores. It provides scores on ten clinical scales. They are: Hypochondriasis; Depression; Hysteria; Psychopathic deviate; Masculinity-Femininity; Paranoia; Psychasthenia; Schizophrenia; Hypomania; and Social Introversion. Three validity scales: the lie score; validity score; and correction score; check for carelessness, test-taking attitude, malingering and misunderstanding on the part of the examinee.

It should be noted that as the MMPI manual cautioned, the scores from the clinical scales were not interpreted literally or used to attach psychiatric labels but rather were used in collaboration with other tests described in this chapter to help create an overall picture of the subject's current mental, emotional and physical state. Also, the multidimensionality and overlap of the MMPI scales meant that pattern analysis offers a viable option to single scale interpretation.

The questionable reliability of some of the MMPI scales, the limitations of the normative sample the test was based on and its insensitivity to sub- and cross-cultural differences (Dahlstrom et al, 1972; Butcher & Pancheri, 1976; Dalhstrom & Dalstrom, 1979) makes cautious and knowledgeable interpretation of the MMPI scores imperative.

## The Tennessee Self-Concept Scales

A second personality test, the Tennessee Self-Concept Scale (TSCS) was administered to the subject prior to and immediately following treatment as well as once more in a six-month follow-up study (Appendix E).

The TSCS is made up of 100 items, 90 items form the main body of the test for assessing self-esteem. Ten more items, borrowed from the MMPI lie scale (Fitts, 1965) monitor

self-criticism. The subject responds to each test statement with a score of 1 to 5 representing a range from 'completely false' to 'completely true'. The subject's overall self-concept is reflected in a total positive score derived from a two-dimensional frame of reference. The subject's internal frame of reference is scored by identity, self-acceptance and behaviour. His/her external frame of reference is composed of physical self, moral/ethical self, personal self, family self and social self. The variability score indicates the amount of inconsistency from one area of self-perception to another and the distribution score measures the subject's degree of certainty in what s/he says about him/herself.

The manual claims the reliability coefficients range from .67 to .92 with high .80's being the norm. The manual also claims good validity in group discrimination and predictive validity is also reported to be high. Some scales show correlations with the MMPI, The Edwards Personal Preference Schedule, Izard's Self Rating Positive Affect Scale and Taylor Anxiety Scale. Despite criticisms of the test (Gable, LaSalle & Cook, 1973; Stanwyck & Garrison, 1982), Suinn (1972) claims "the Tennessee Self Concept Scale ranks among the better measures combining group discrimination with self concept information", (p. 151).

## Profile of Mood States

The POMS was administered two weeks prior to therapy and then each week subsequently until two weeks after completion of therapy. It was also given six months later for the follow-up study (Appendix F).

The POMS is a self-rated 65-item inventory composed of adjectives or phrases which the subject rates on a five point scale (from 'not at all' to 'extremely') describing his/her feelings during the past week. Redundancy is built into the questionnaire in an effort to compensate for the attempt to make measurements on mood as an undefined continuous scale (i.e. a client may feel somewhere between 'two' and 'three' and arbitrarily choose 'two' one time and 'three' another).

The POMS is a standardized mood scale with six independent sub-scales: tension-anxiety; depression-dejection; anger-hostility; vigor; fatigue; confusion-bewilderment.

Many items on the POMS are similar and are grouped into clusters to represent the six independent subscales. A factor analysis of it can be used, for instance, to reduce large numbers of measurements to a smaller, more manageable size (Stitt, Frane & Frane, 1977). The POMS was used in a more clinical format in this case. The use of a single case research design means that a reduction of the measurements for analysis is not required. The results of each subscale

allowed the researcher to monitor fluctuating mood changes of the subject and use this data in an ongoing way during therapy. The results were also assessed retrospectively to study the possible effects of the therapy on the subject's mood states during treatment and after the six month follow-up.

The reliability of the POMS factors is represented by the internal consistencies and the test-retest reliability. Based on a normative sample of 1,000 psychiatric outpatients, the internal consistency is reported (McNair, Lorr, Doppleman, 1981) as ranging from .84 to .95 with an average reliability of .91. The test-retest reliability estimates ranged from .65 to .74. Based on correlations between POMS scores at intake and pretreatment, the authors point out that "seeking and finding a source of psychiatric treatment is in itself probably associated with change in emotional states" (p. 10), and therefore these estimates of reliability may be lower for that reason. They also argue that mood is a fluctuating state and cannot be expected to attain the same levels as more stable personality characteristics.

Using studies in short-term psychotherapy, controlled patient drug trials, response to emotion inducing conditions and concurrent validity coefficients and other POMS correlates, the authors provide evidence for the predictive and construct validity of the POMS. The brief psychotherapy

studies (Lorr, McNair, Weinskin, Michaux & Raskin, 1961; Lorr, McNair, Weinstein, 1964) showed outpatients experienced significant ($p < .001$) improvement in tension-anxiety, depression-dejection, anger-hostility and fatigue and improvement in vigor. A comparison study (Haskell, Pugatch & McNair, 1969; Holstein, 1970) suggests that "POMS does not change simply as a function of repeated testing during treatment and that the degree of change is meaningfully correlated to either duration of treatment, the ending of treatment, or both" (p.110).

## Subjective Stress Inventory

The Subjective Stress Inventory was administered to the subject beginning two weeks prior to therapy and subsequently each week until two weeks after completion of therapy. It was also given six months later for a follow-up study (Appendix G).

The Subjective Stress Inventory was developed by the researcher and subject as a means of assessing fluctuations in stress levels and monitoring areas of continuous, extreme stress. It was used to provide baseline data of the subject's condition prior to therapy and was used as a guideline for helping assess the effectiveness of the treatment program. Tosi, Howard & Gwynne (1982) measured

improvement with objective test results from tbe MMPI and TSCS and from baseline and during therapy self report data.

The item content was based upon areas which the subject specified as being particularly stressful (such as going out in public or trying to fall asleep). The inventory also took into account physiological problems such as loss/increase in weight or changes in the menstrual cycle. In total, 23 words or phrases (i.e. relationship with spouse, going to the doctor, housework) were presented and for each one the subject rated the degree of stress/anxiety (from 1 'low' to 5 'high') experienced as a result of that situation.

Baseline, during and post therapy data served to monitor emotional and physiological response changes.

## Physiological Symptoms Scale

The Physiological Symptoms Scale (PSS) was completed two weeks prior to therapy and each week subsequently until two weeks after the completion of therapy. It was administered again for the six month follow-up study (Appendix H).

The content of the PSS was borrowed from the DSM-III (1980) criteria for panic disorder. Twelve symptoms are listed and the manual states that at least four must occur during the attack to warrant the panic disorder diagnosis. In collaboration with the subject, eight commonly experienced

symptoms were chosen for the PSS. Each week she rated the severity and frequency of the symptom by a rating of 1 'low' to 5 'high'. The eight symptoms are: dyspnea; palpitations; vertigo; parethesias; sweating; faintness; trembling and shaking; fear of dying/going crazy.

Once again the baseline data, frequency and severity of attacks before therapy were compared to their frequency and severity during and following therapy.

## Single Subject Research Design

Single case experimental designs must be recognized as distinct from case studies. The latter, anecdotal in nature, tend to have poor internal validity and are often impossible to replicate. Many researchers have criticized the case study's reliance on inferences drawn from uncontrolled reports (Kazdin, 1982; Nugent, 1985; Mott, 1986) and advocate instead the use of the single case design.

In contrast to case studies, single case experimental design uses repeated objective measures including continuous assessment of performance over time and a demand for stable levels of performance before and after treatment. According to Bloom & Fischer (1982), "single system designs involve planned use of a research design, clear measurement rules, explicit evaluation procedures, and a clear identification of an intervention program, including when intervention starts

and when it is completed" (p. 294). This allows the researcher greater confidence in suggesting causal inference, increasing the internal validity of the single case design over that of the case study (Hersen & Barlow, 1976).

In this single case experimental design, the present researcher followed general guidelines presented by Kazdin, (1982), directly addressed issues and criticisms outlined by Nugent (1985) and borrowed from the example set by Gwynne, Tosi & Howard (1978).

Continuous assessment is Kazdin's (1982) first requirement of single case designs. This allows the investigator the opportunity to examine the pattern and stability of performance before treatment is initiated, (i.e. performance without treatment) and the effects of the interventions (i.e. performance with treatment).

In this study, the continuous assessment was based on both objective and subjective measures. The objective data came from the standardized POMS (described earlier in this chapter) and from self-reports from the Subjective Stress Inventory and the Physiological Symptoms Scale (both described earlier in this chapter). These tests were administered weekly throughout the duration of therapy.

The second requirement of single case research is baseline assessment. This refers to the data describing level and stability of performance before the interventions which

helps assess the severity of the client's problems as well as serving a predictive function. As long as the level of performance is stable or stable deterioration, future projections would likely predict a continuation of the baseline performance. So, once a recognized trend has been established, "if an intervention is applied and the stable pattern changes, this suggests that the intervention rather than other factors is responsible" (Nugent, p. 195).

The baseline assessment for this research was conducted using objective and subjective test scores beginning two weeks prior to therapy. The data came from the same tests used for continuous assessment (POMS, SSI, PSS). In the study by Gwynne, Tosi and Howard (1978), and in a later study, (Tosi, Howard, & Gwynne, 1982), a two week baseline period was implemented. Kazdin (1982), Nugent (1985) and Mott (1986) are vague in their descriptions of the duration that constitutes the baseline except to say that the data should demonstrate stability information. The present author chose to follow the example set by Gwynne, Tosi and Howard (1978), and designed a two week baseline period. As well as objective tests prior to therapy, a history of the condition was taken including its frequency, severity and duration as well as recording any periods of improvement or remission of the symptoms.

Nugent (1985) describes his framework for evaluation in

four components. First, the use of objective data is essential so that it is not necessary to rely on the therapist's opinion of anecdotal information. By clearly defining the problem, objective measurement procedures can be established.

Secondly, Nugent (1985) calls for a pre- and post-treatment measurement design, objective measures of the problem taken once before and once after treatment. In the present research, the pre- and post treatment are the MMPI and the TSCS administered two weeks before therapy and two weeks following completion of therapy.

Nugent's (1985) third and fourth dimensions of his evaluation framework, use of repeated measures and stability information, correspond with Kazdin's (1982) continuous assessment and baseline assessment respectively. They have been covered earlier in this section.

Kazdin (1982) advocates the use of an A-B-A-B design in which there is a) the baseline condition; b) intervention; c) withdrawal of treatment; and d) reinstatement of the intervention. Perhaps in a laboratory setting or in larger controlled studies using volunteers, this design would be acceptable. In the present research, clinical priorities outweigh research interests and the A-B-A-B design had to be rejected. It becomes an ethical question when the withdrawal of treatment (possibly prematurely) serves to answer

researchers' questions but is not in the best interests of their clients.

The A-B-A design seemed far more adaptable to single case research since these cases usually arise in the course of everyday clinical work rather than in traditional group comparison research. Nugent (1985) agrees with Kazdin (1982) and Bloom and Fischer (1982) that "use of repeated measures before and during treatment, essentially an A-B single case design, appears a minimum requirement for making data-based causal inferences", (p. 196). He also points out that "the A-B design, with stability information and the multiple baseline single case designs seem particularly well-suited for use with hypnotic interventions" (p. 196). Nugent (1985) calls on researchers, and hypnotherapists in particular, to adhere to guidelines for single case designs so that effective therapeutic technology may develop.

## Analysis

The analysis of the data was based on an interrupted time-series A-B-A withdrawal design. (Borg & Gall, 1979; Kazdin, 1982; Tawney & Gast, 1984). As mentioned in the previous section, the A-B-A design was chosen over the more powerful A-B-A-B design since, in this particular case, the clinical outcome took precedence over research interests. Therefore, treatment was not withdrawn until such time as the therapist was confident the subject would not return to baseline.

For the visual analysis of graphic data, Tawney & Gast (1984) attend to:

> (1) the number of data points plotted within a condition, (2) the number of variables changed between adjacent conditions, (3) level stability and changes in level within and between conditions, and (4) trend direction, trend stability, and changes in trend within and between conditions. (p. 159).

We examined the amount of variability indicated on the ordinate scale and identified the level change by comparing the first and last data points within a condition. The level change between adjacent conditions was also studied. The trend direction or slope showed whether there is improvement or decay of the ordinate value, and its steepness over time.

The trend was estimated using the split-middle level of progress method (White & Haring, 1980) which is considered to be a more accurate and reliable estimate than the freehand method.

As well as isolating and analyzing the data patterns, a therapy log highlighting significant events or circumstances was employed to help explain sudden changes, an unexpected variability and potentially compounding variables which might threaten the internal validity of the study.

# CHAPTER IV

# RESULTS

## Barber Suggestibility Scale

The subject scored eight out of eight on the objective section of the test and 23 out of 24 on the subjective responses. In other words, she responded positively to all eight test suggestions. On the subjective questionnaire, which determines the degree to which she experienced each suggestion she scored full marks except for one item. When she was instructed that her arm would become very heavy, she described her arm as feeling heavy, not very heavy.

Such high scores tend to be indicative of highly suggestible clients who make good hypnotic subjects.

## Minnesota Multiphasic Personality Inventory

The profiles from the pre-therapy, post-therapy and follow-up administrations are provided in Appendix I and illustrated in Figure 4-1. The identification of pathological deviation is generally accepted as any score of 70 or higher (i.e. two standard deviations above the mean), (Anastasi, 1982). The pre-therapy profile shows eight scores exceeding this mark. They are: Validity (F) = 76; Hypochondriasis (Hs) =82; Depression (D)=94; Hysteria (H)=96; Psychopathic deviate (Pd)=80; Paranoia (Pa)=76; Psychasthenia (Pt)=77; Schizophrenia (Sc)=87. The post-therapy shows only one scale which remains above the normal range, Pd=73. By the six month

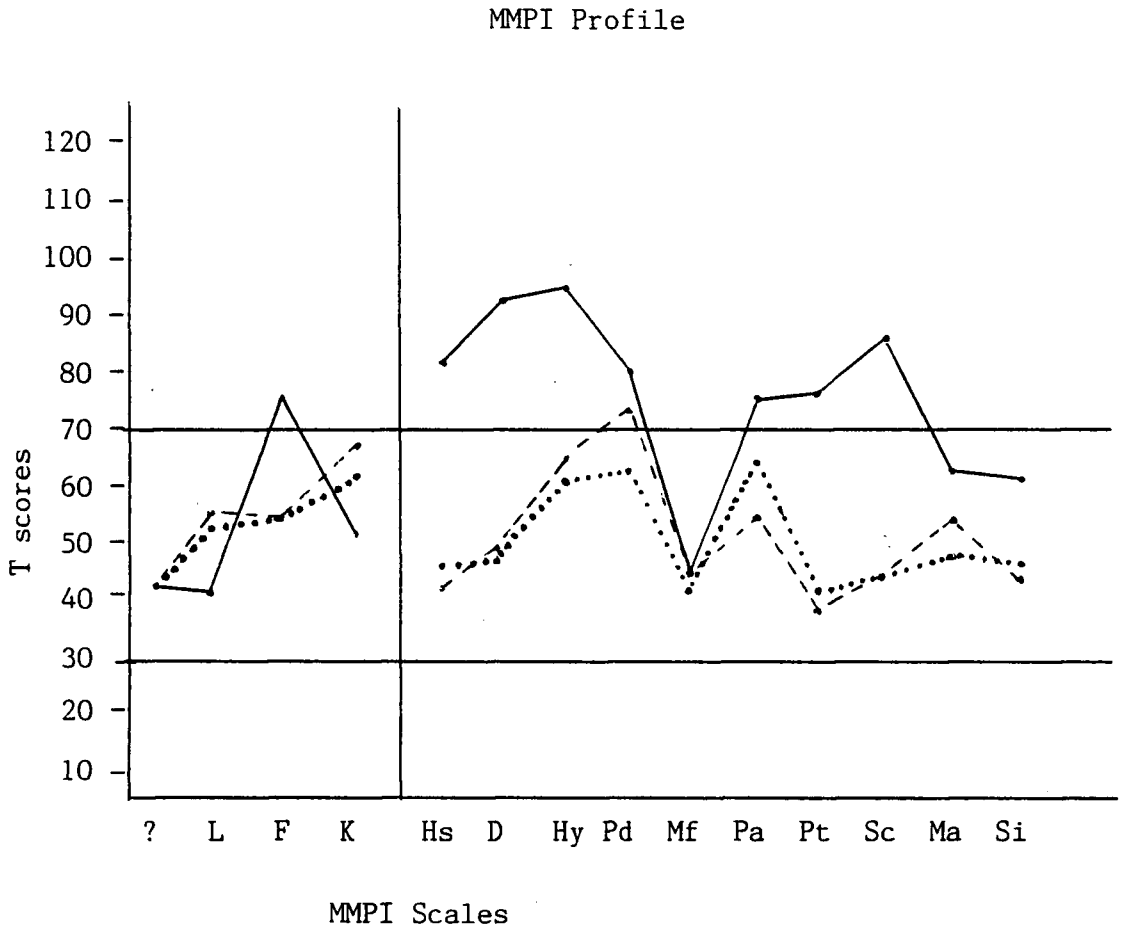



Figure 4-1. Ann's uncorrected (non-K corrected) profile for pre-therapy (solid line), post-therapy (broken line) and follow-up (dotted line).

follow-up, all scores are within the normal range.

The MMPI results suggest that the severity of the symptoms were significantly reduced by the time of the post-therapy assessment. The follow-up shows further improvement and maintenance of all areas of improvement over the six month period.

## Tennessee Self-Concept Scale

The pre-therapy profile (figure 4-2) shows a moderately elevated self-criticism score (T=57), low total conflict score (T=38) and her total score (overall self-esteem) is T=41, almost one standard deviation below the mean. All positive scores (1=identity; 2= self-satisfaction; 3=behaviour; A=physical self; B=moral-ethical self; C=personal self; D=family self; E=social self) are at or below the mean (T1=38; T2=45; T3=40; TA=33; TB=38; TC=50; TD=46; TE=47). The empirical scales show high scores for general maladjustment (TGM=63), personality disorder (TPD=61) and neurotic (TN=63).

The post-therapy profile (figure 4-3) self-criticism score is T=46, total conflict T=58, and the total postiive score increased one and a half standard deviations to T=56. All positive scores but one (family-self TD=48) are above the mean, (T1=52; T2=58; T3=56; TA=55; TB=56; TC=63; TE=59). Four of the six empirical scales are below the mean (GM, PSY, PD and N). Defensive positive is now TPD=54 and personality

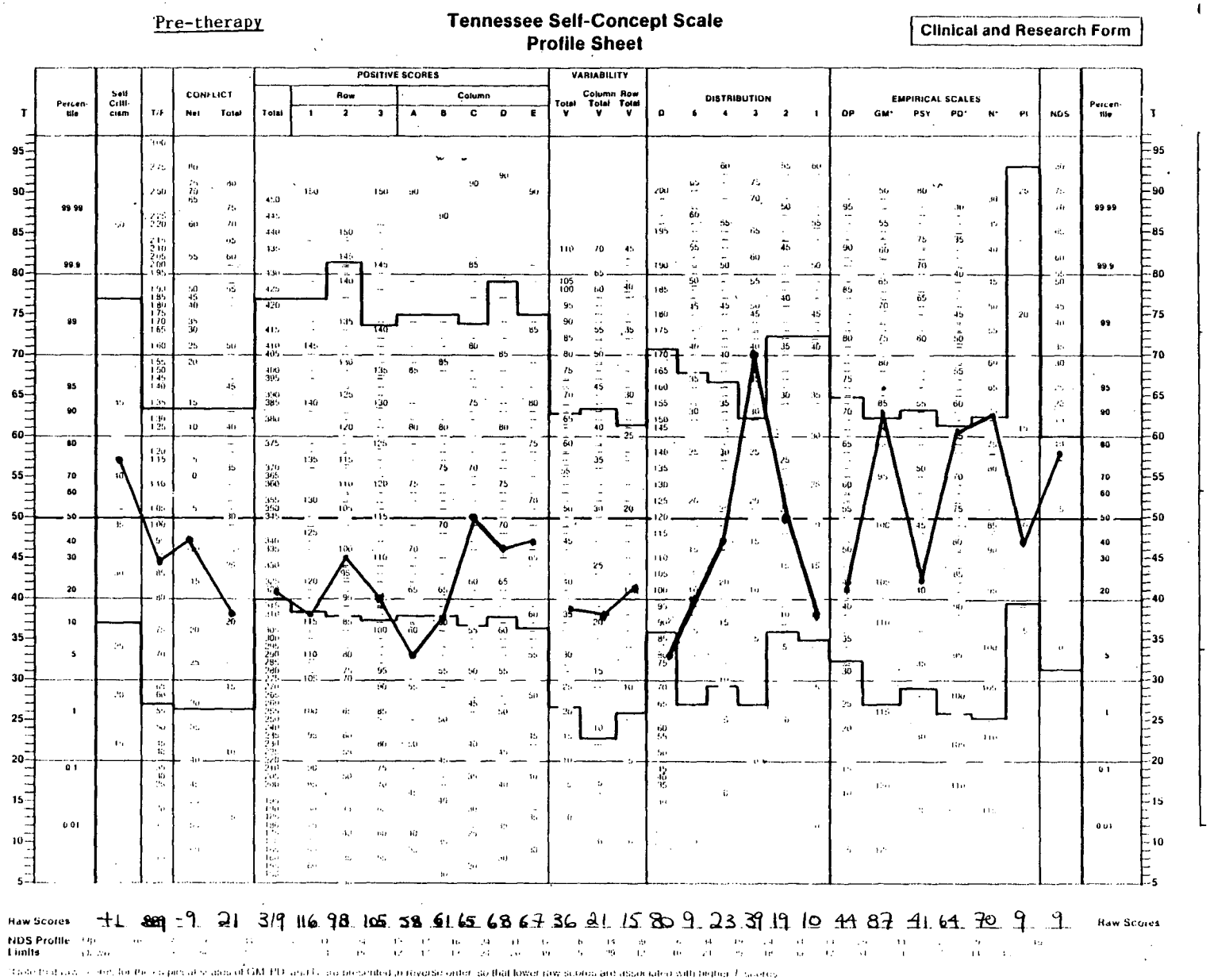



Figure 4-2. Ann's pre-therapy profile of the Tennessee Self-Concept Scale

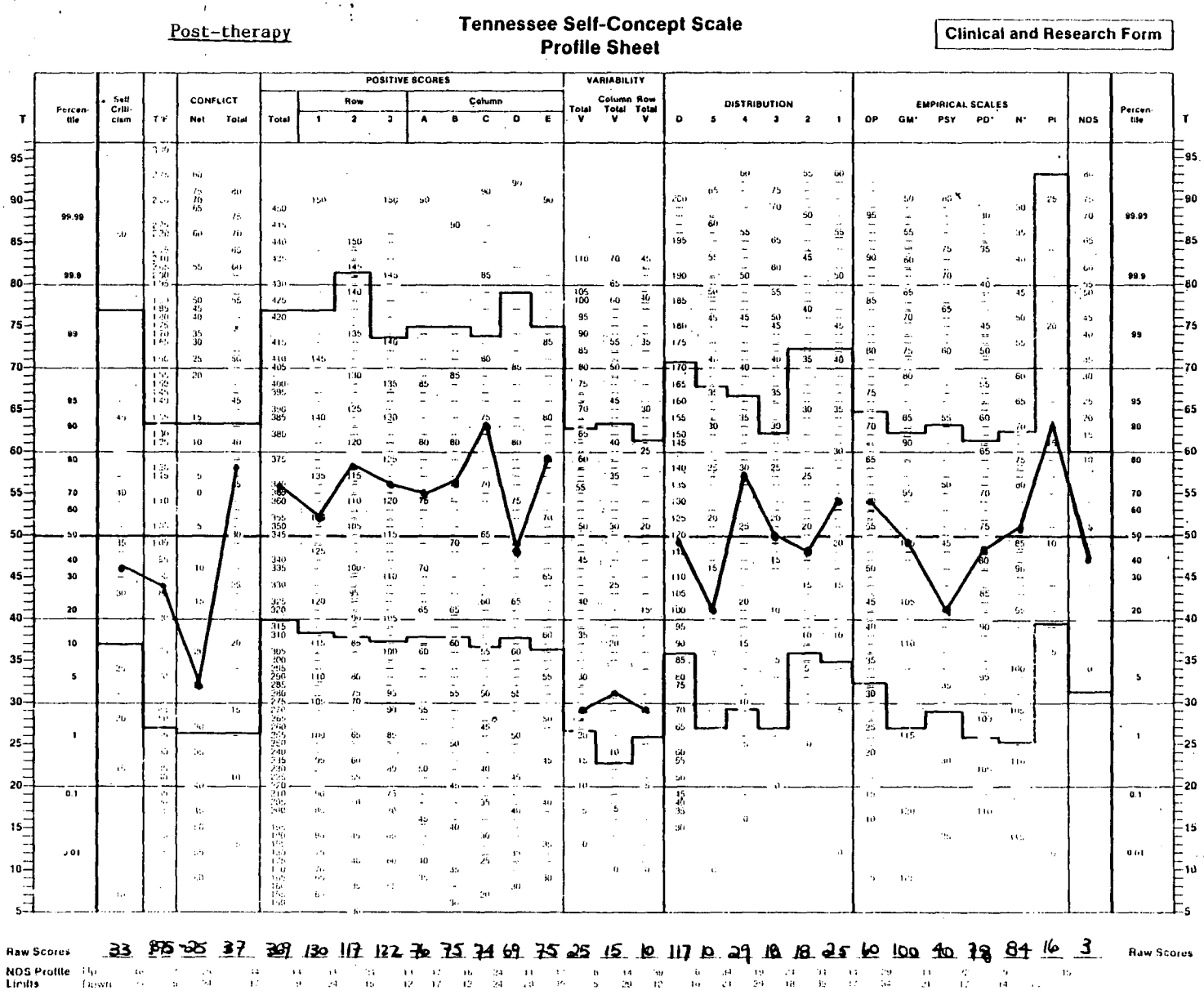



Figure 4-3. Ann's post-therapy profile of the Tennessee Self-Concept Scale.

integration improved significantly to TP1=63.

By the six month follow-up study (figure 4-4), the self-criticism score had maintained the post-therapy improvement, TSC=48, total conflict was the same at T=58 and overall self-esteem had increased again to T=65. The positive scores are all in the normal range, (T1=56; T2=63; T3=65; TA=59; TB=59; TC=64; TD=58; TE=63). The pattern for the empirical scales is similar to the post-therapy report, only two scores above the mean, TDP=57 and TPI=61.

The change score for self-criticism, before and after the intervention is significant, T=11. The change score for the total positive pre-and post-therapy is T=15 and between pre-therapy and follow-up, T=24. These results suggest overall improvement of the components of self-concept after the therapeutic intervention. The follow-up profile shows this positive self-concept remained stable or strengthened six months after treatment completion. (Figure 4-5 illustrates the comparison of the three sets of scores).

## Profile of Mood States

Ann's average total mood disturbance score (TMD) pre-therapy was 124.5 (figure 4-6). On the first week of pre-therapy testing her tension/anxiety score was 33 out of possible 36 (=64); depression/dejection was 42 out of 60 (T=59); anger/hostility was 11 out of 48 (T=47); vigor was 2

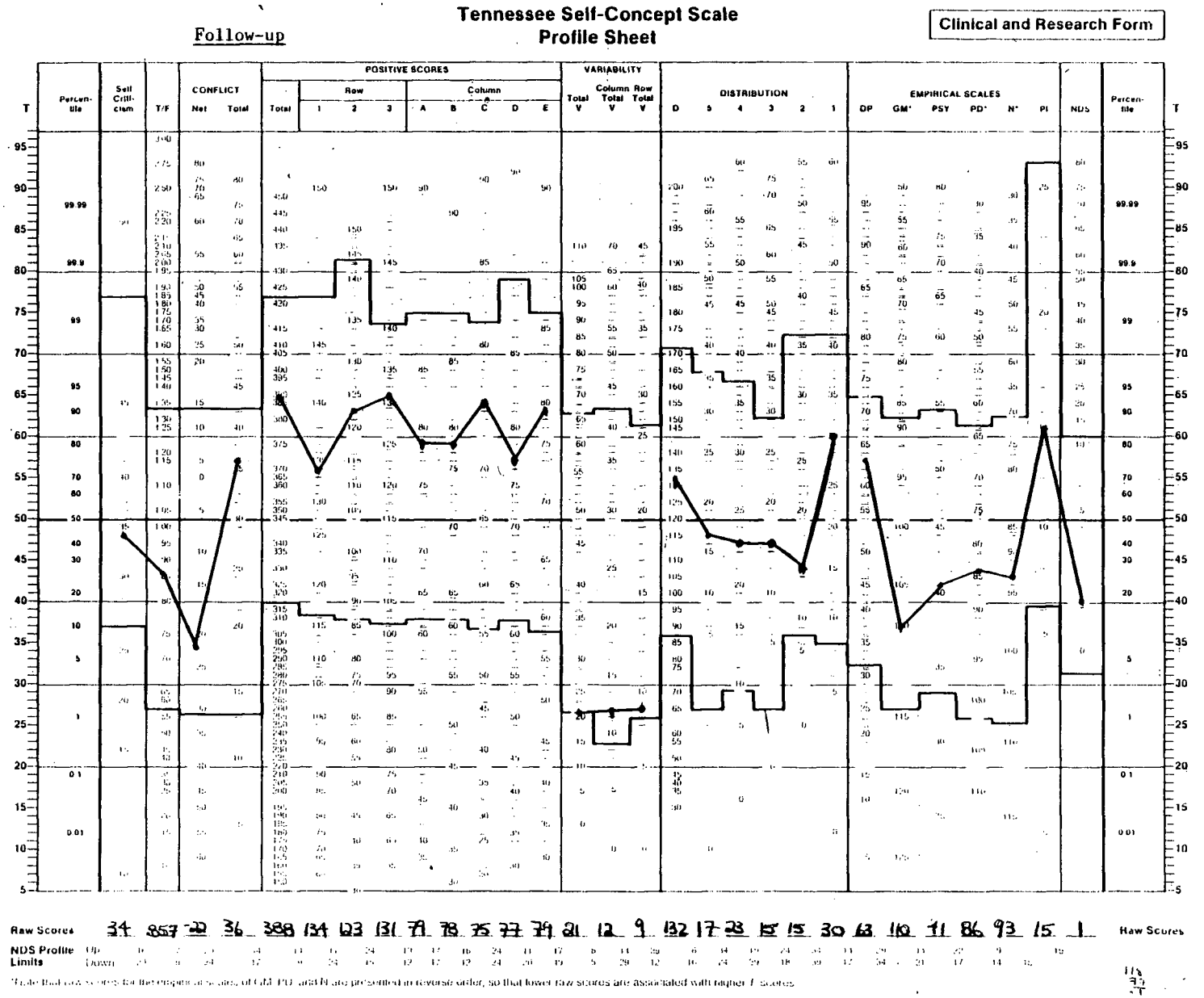



Figure 4-4. Ann's follow-up profile of the Tennessee Self-Concept Scale.

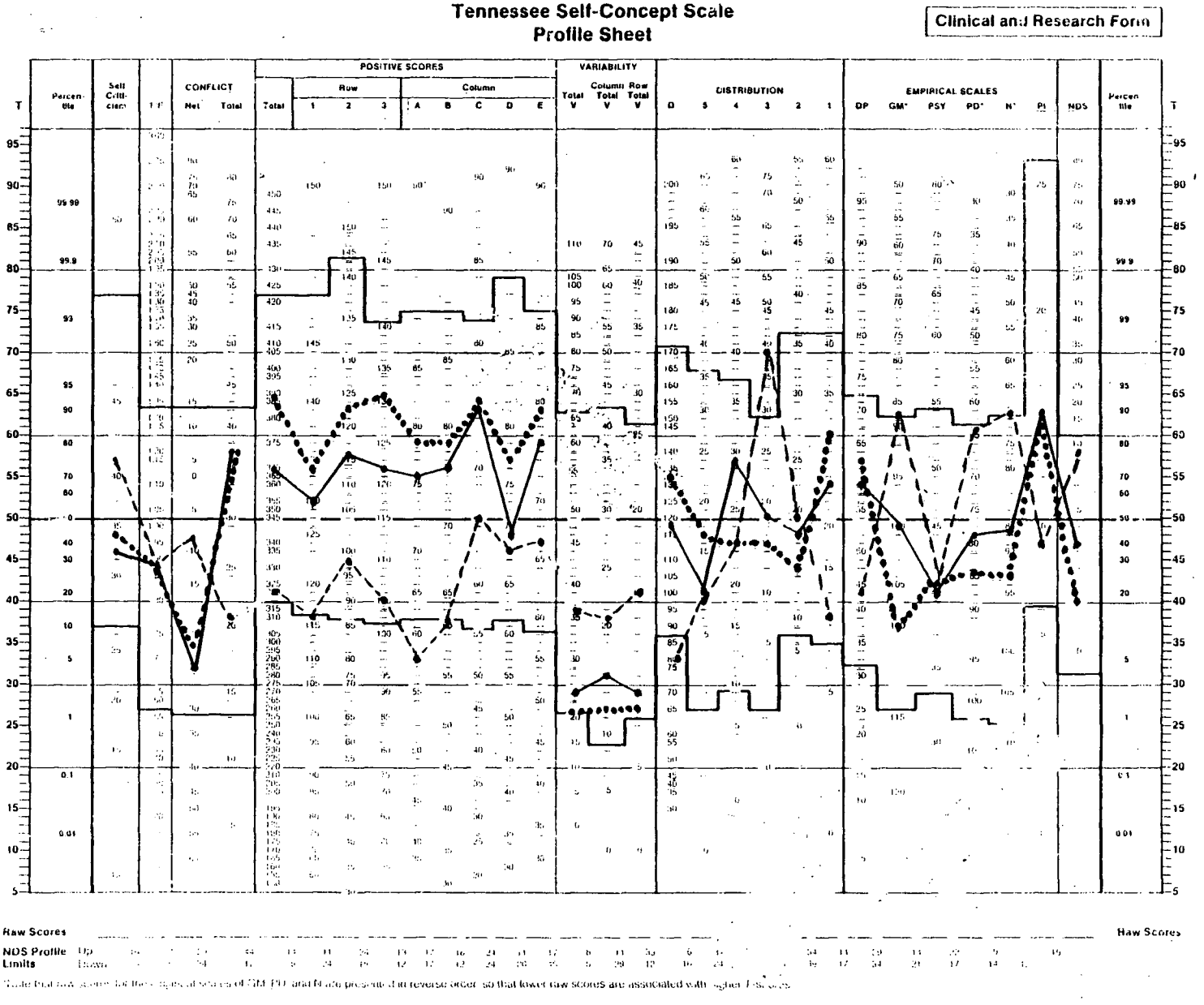



Figure 4-5. Comparison of Ann's pre-therapy, post-therapy and follow-up TSCS profiles. (Pre-therapy - broken line; post-therapy - solid line;

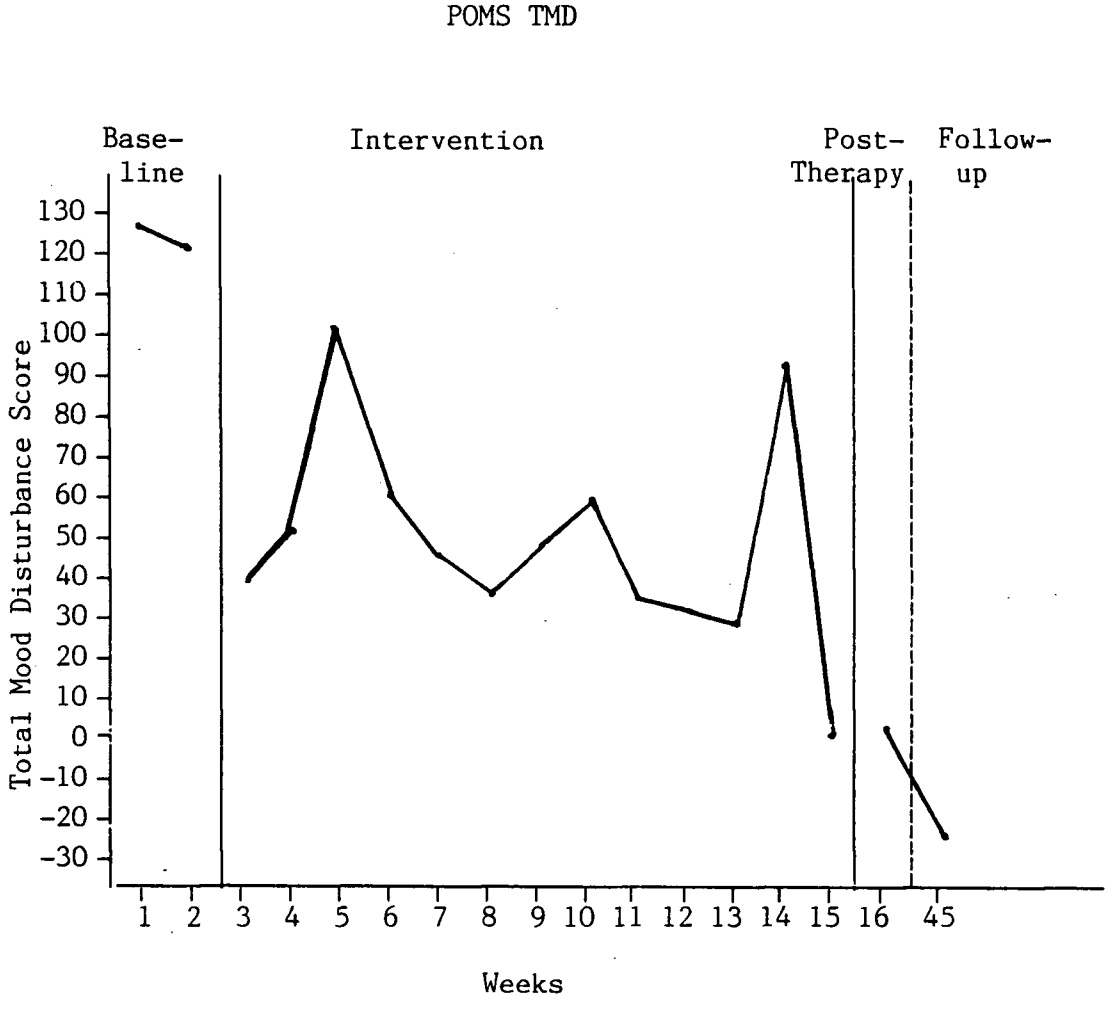



Figure 4-6. Ann's total mood disturbance scores from baseline to follow-up.

out of 32 (T=38); fatigue was 28 out of 28 (T=68) and confusion/bewilderment was 15 out of 28 (T=52).'

By post-therapy, tension/anxiety was down to 6/36 (T=33), depression/objective 1/60 (T=33); anger/hostility 5/48 (T=41); vigor 16/32 (T=61); fatigue 6/28 (T=42); confusion/bewilderment 2/28 (T=33). Total mood disturbance had dropped dramatically to 4.

Follow-up scores were: tension/anxiety =0 (T=30); depression/dejection = 1 (T=33); anger/hostility = 5 (T=41); vigor = 29 (T=80+); fatigue = 0 (T=34); and confusion/bewilderment = 2 (T=33); TMD = 21. Figures 4-7 to 4-12 illustrate the significant change scores from baseline assessment to the six month follow-up. The change score from the baseline to follow-up scores were significant for tension/anxiety, T=34; depression/dejection change score, T=26; vigor, T=42+; fatigue, T=34; T=19 was the change score for confusion/bewilderment. The raw change score for the TMD was 148. These results compliment the TSCS and MMPI results which also documented significant improvement through the intervention and improvement stability from post-therapy to the follow-up.

## Subjective Stress Inventory

The Stress Experience Questionnaire (Appendix V) originally contained 23 items. Five of the original items

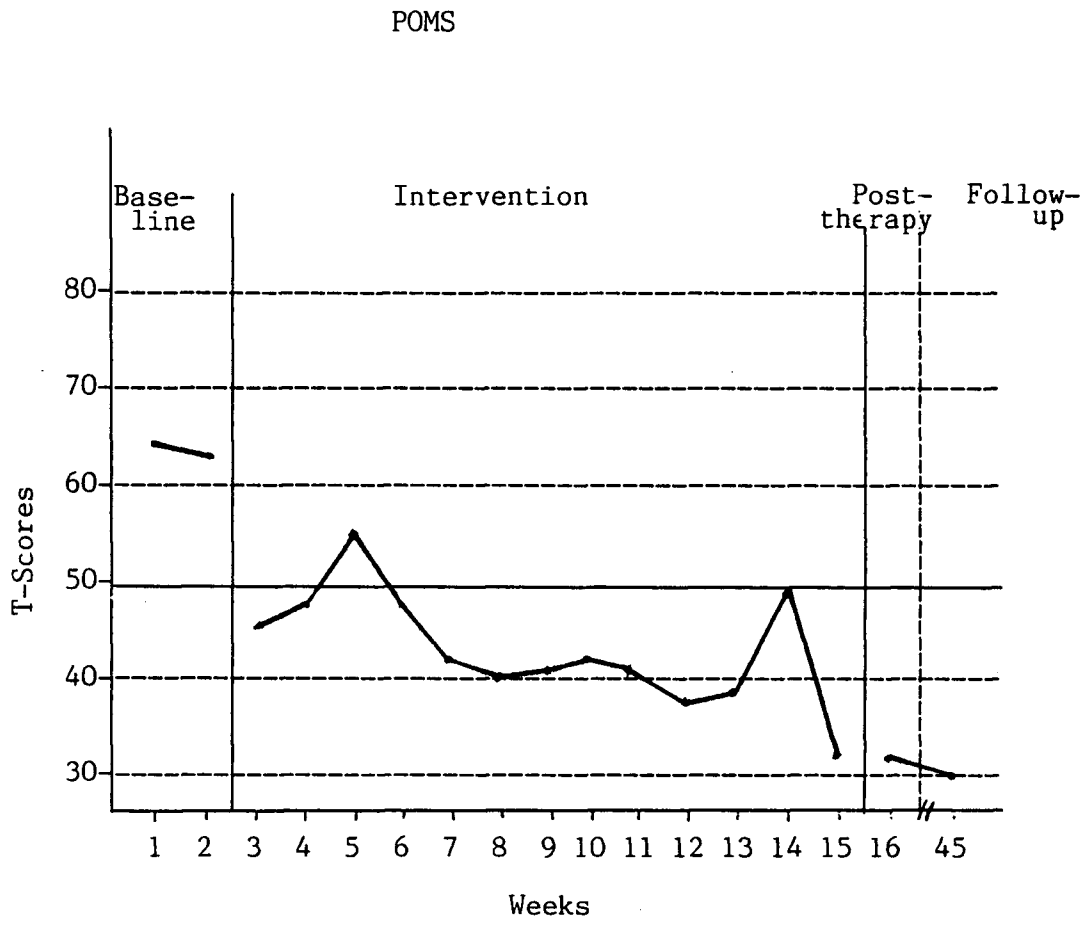



Figure 4-7. Ann's t-scores at baseline, intervention, post-therapy and follow-up for the POMS tension-anxiety scale.

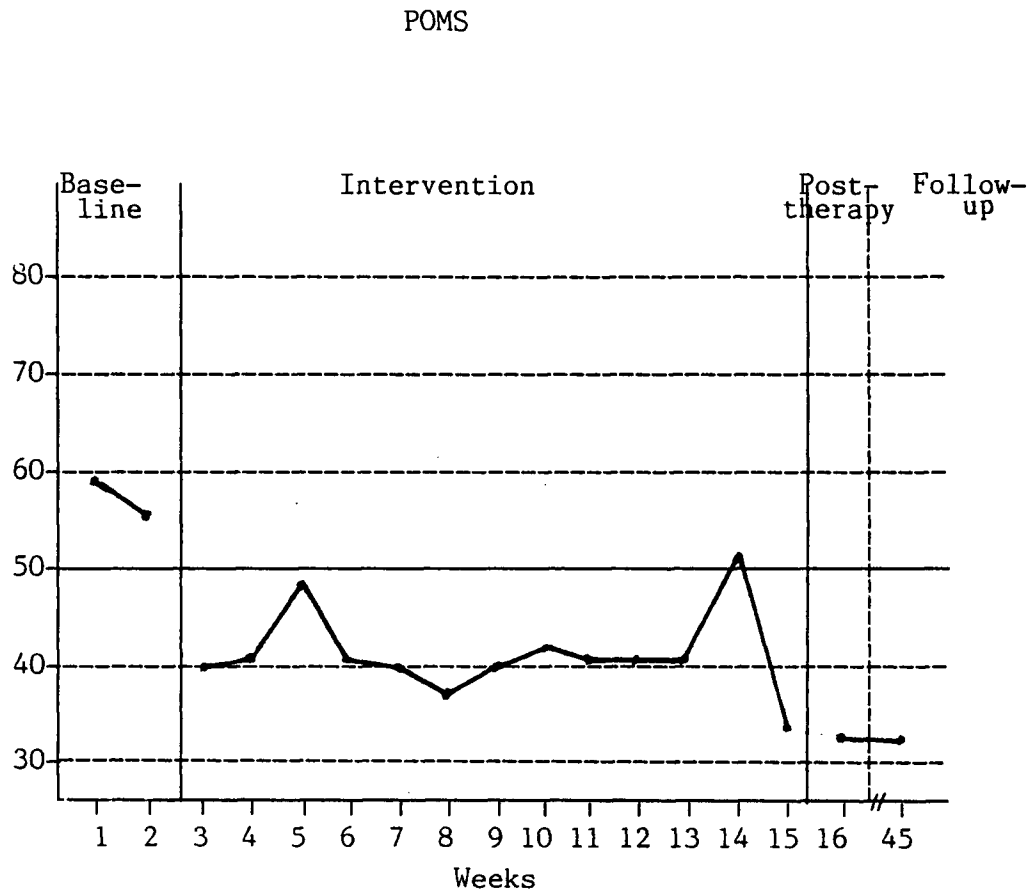



Figure 4-8. Ann's t-scores at baseline, intervention, post-therapy and follow-up for the POMS depression scale.

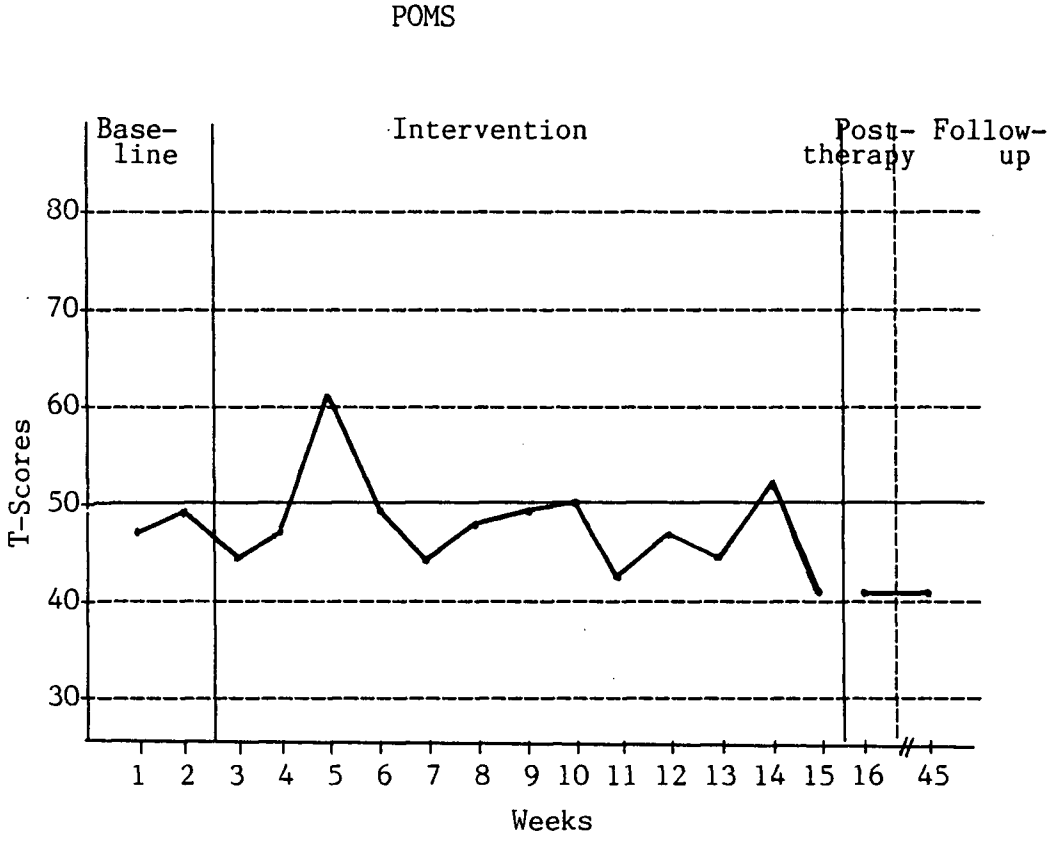



Figure 4-9. Ann's t-scores at baseline, intervention, post-therapy and follow-up for the POMS anger-hostility scale.

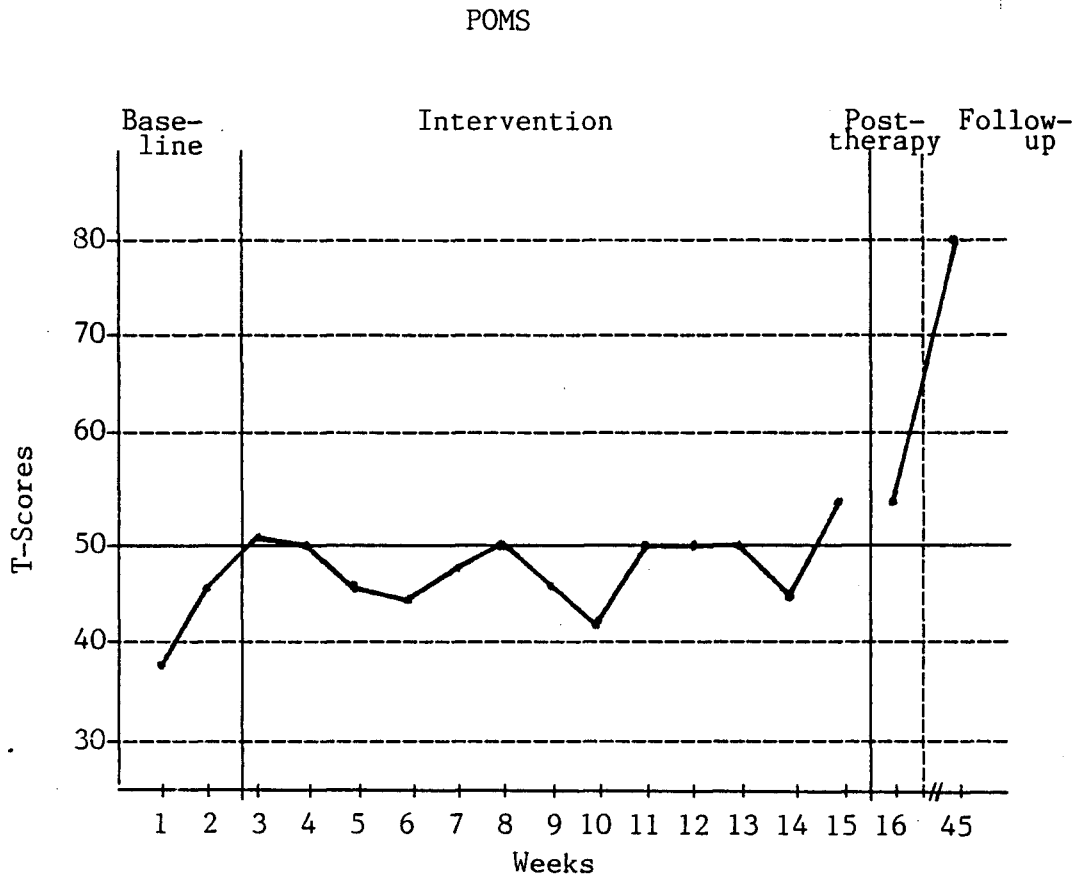



Figure 4-10. Ann's t-scores at baseline, intervention, post-therapy and follow-up for the POMS vigor scale.

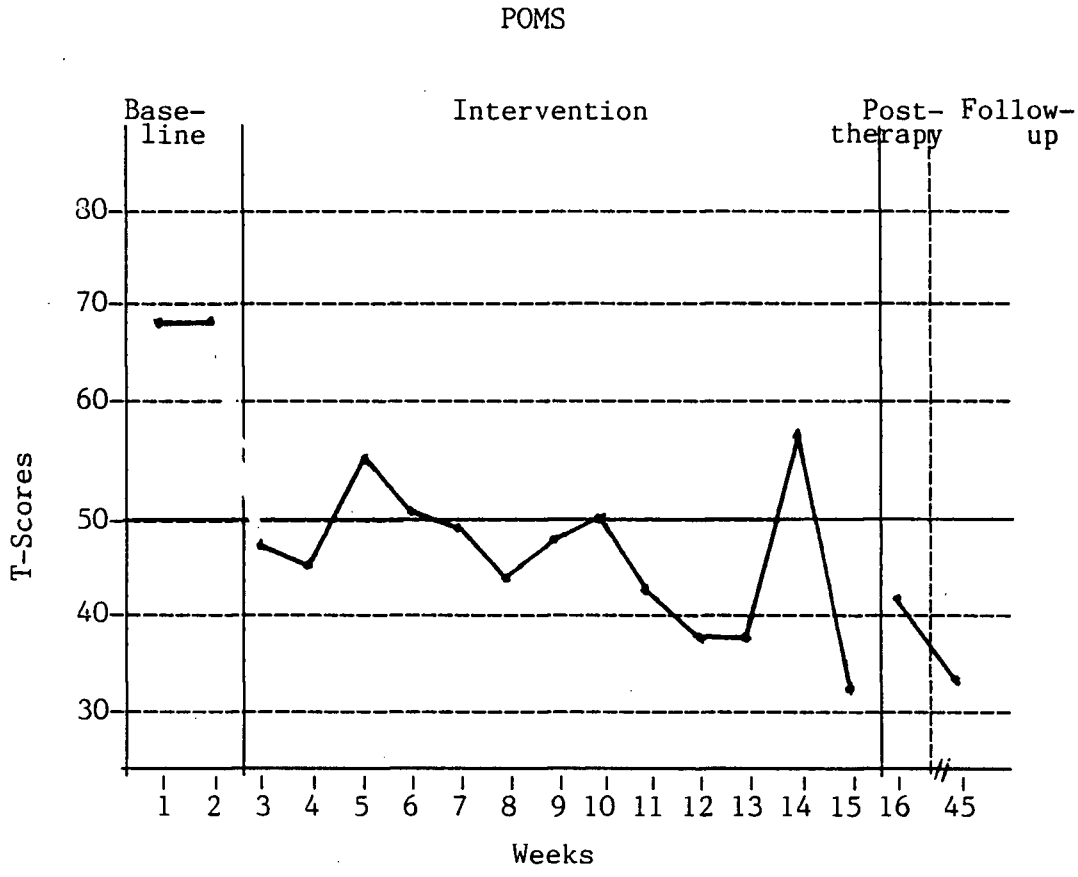



Figure 4-11. Ann's t-scores at baseline, intervention, post-therapy and follow-up for the POMS fatigue scale.

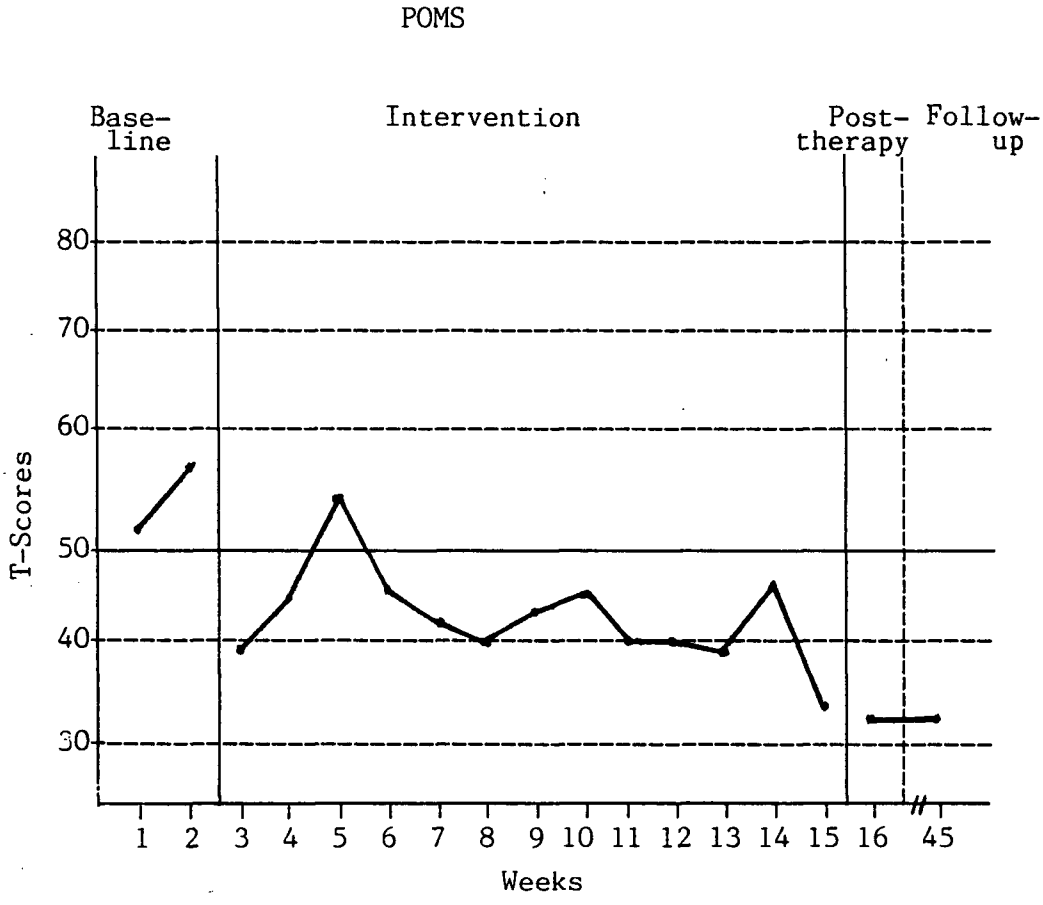



Figure 4-12. Ann's t-scores at baseline, intervention, post-therapy and follow-up for the POMS confusion-bewilderment scale.

were dropped (a mutual decision between the researcher and the subject) because they were, or became, irrelevant or extraneous. For that reason, items #3, 6, 9, 10, 11 will not be documented in the analysis.

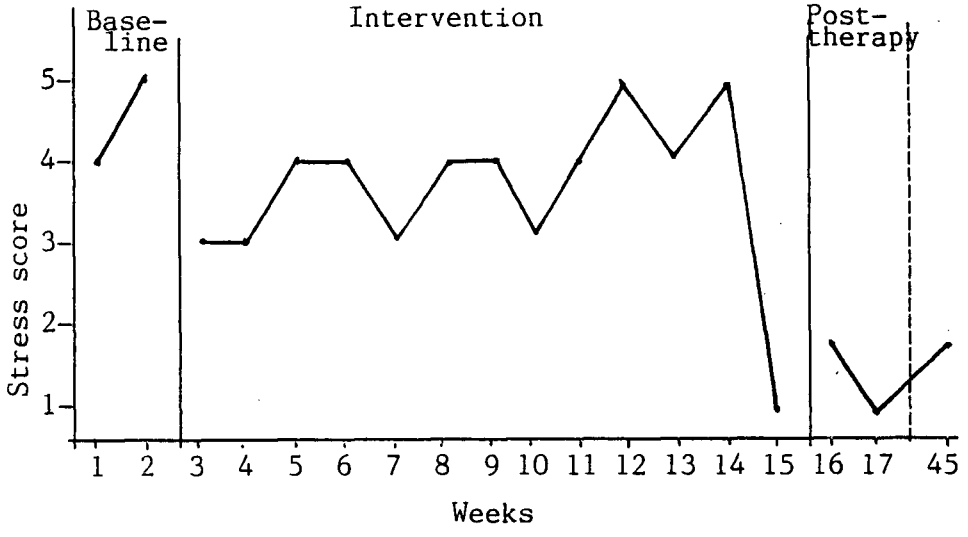
Also as it occurs as a general theme throughout the graphs, it is worth noting two incidents which account for increased stress scores. In week 5, Ann and her family moved to a new house and in week 14, Ann's husband became unemployed. As we will see, many of the graphs, even those demonstrating improvement trends, have a marked increase of stress experience during weeks 5 and 14.

Item 1, relationship with spouse (figure 4-13), shows initial improvement following a deteriorating baseline (score dropped from 5 to 3). However, the split middle line of progress (White & Haring, 1980) covering 13 weeks of therapy illustrates an accelerating trend (increasing in ordinate value over time). Post therapy scores suggest improvement (scores=2 and 1), follow-up score=2.

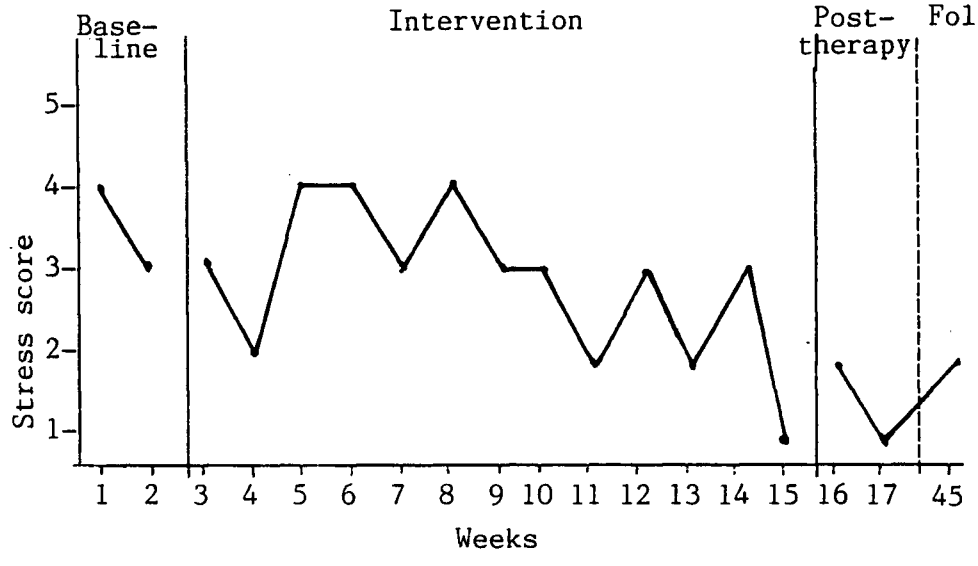
Item 2, relationship with her children, (figure 4-13) moderate reduction in stress is indicated although the follow-up score shows a deteriorating change of trend. Change score from baseline to follow-up is 2.

Interaction with friends, item 4 (figure 4-13) demonstrates a baseline stable at the high stress level (5), gradual reduction in stress and a stable low stress level (1)

#1 relationship with spouse




#2 relationship with children




#4 interaction with friends

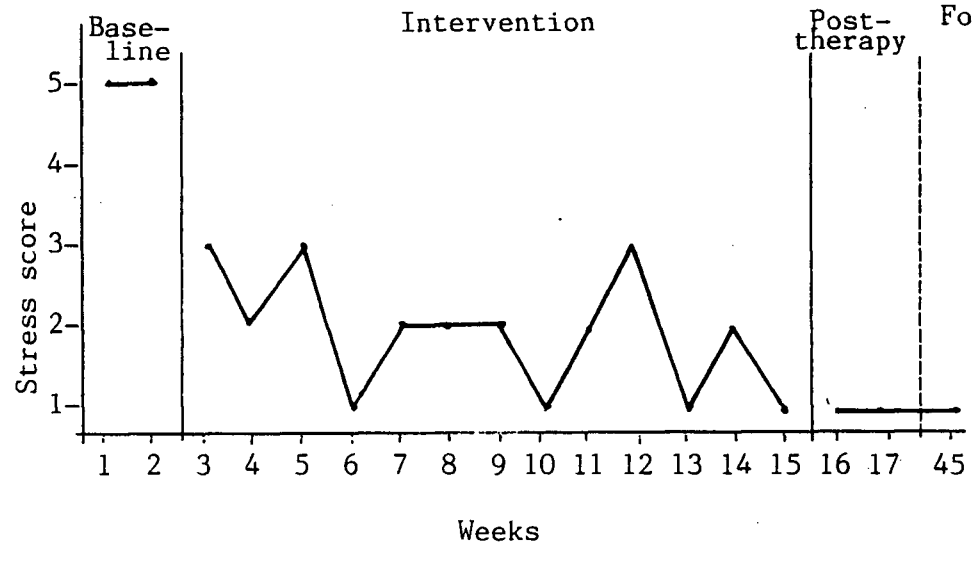



Figure 4-13. Ann's stress scores (SSI) at baseline, intervention, post-therapy and follow-up, for relationship with spouse, relationship with children and interaction with friends.

for post-therapy and follow-up reports. Change score =4.

Figure 4-17 represents item 5, going out in public. A stable high stress baseline (5) drops immediately once therapy begins (3) and by the fourth week the variability is considerably reduced leading to a stable low stress level (1) for the four final weeks of therapy as well as the post-therapy and follow-up scores. Change score = 4.

Item 7, going to the therapist, (figure 4-17) began and remained as a non-stress inducing event for Ann. The only changes to the regular low stress scores (1) were on the aforementioned weeks (5, stress score=2 & 14, stress score=3) which caused overall increases in perception of stress.

Eating, item 8, was Ann's first and most consistant complaint. As we see in figure 4-15, an initial improvement (3) after the stable high stress baseline (5), was only temporary as an accelerating slope shows this problem remained significant throughout therapy. There are signs of improvement post-therapy (post-therapy=3,4, follow-up=2) but not enough to confirm a reversing trend.

Item 12, going to sleep (figure 4-18) has a stable high stress baseline (5) reporting a serious problem at the outset of treatment but a drastic and relatively stable improvement (1) occurred immediately and persisted right through to the follow-up (1).

Amount of sleep, item 13 (figure 4-18) was also a concern for Ann in the months prior to seeking therapy. She would have trouble falling asleep then would awaken often and remain awake for hours at a time. Baseline is stable at high stress (5), post-therapy and follow-up stable at low stress (1).

Item 14, anticipating commencement of job (figure 4-17) was another primary consideration for Ann (baseline=5). The split middle line of progress suggests a downward trend in stress level, the scores remained relatively high (X=3.5). Ultimately, Ann was recommended by her physician not to return to work due to her potential allergy to chemical used in the plant where she worked. This explains the sudden drop in stress level following completion of therapy.

An unusual baseline is presented for item 15, housework, (figure 4-19). Jumping from high stress (5) to low stress (1) in one week, the during therapy scores are scattered amongst the mid-range scores (2 to 4) and from week 12 onward, the level is stable at low stress (1). The split middle line of progress shows a decelerating slope.

Changes in weight (item 16) (figure 4-15) particularly weight loss were very upsetting to Ann, (baseline=5). The post-therapy scores (3 and 2) and follow-up score (1) suggest improvement occurred during the intervention phase.

Taking medication (item 17) (figure 4-16) showed baseline

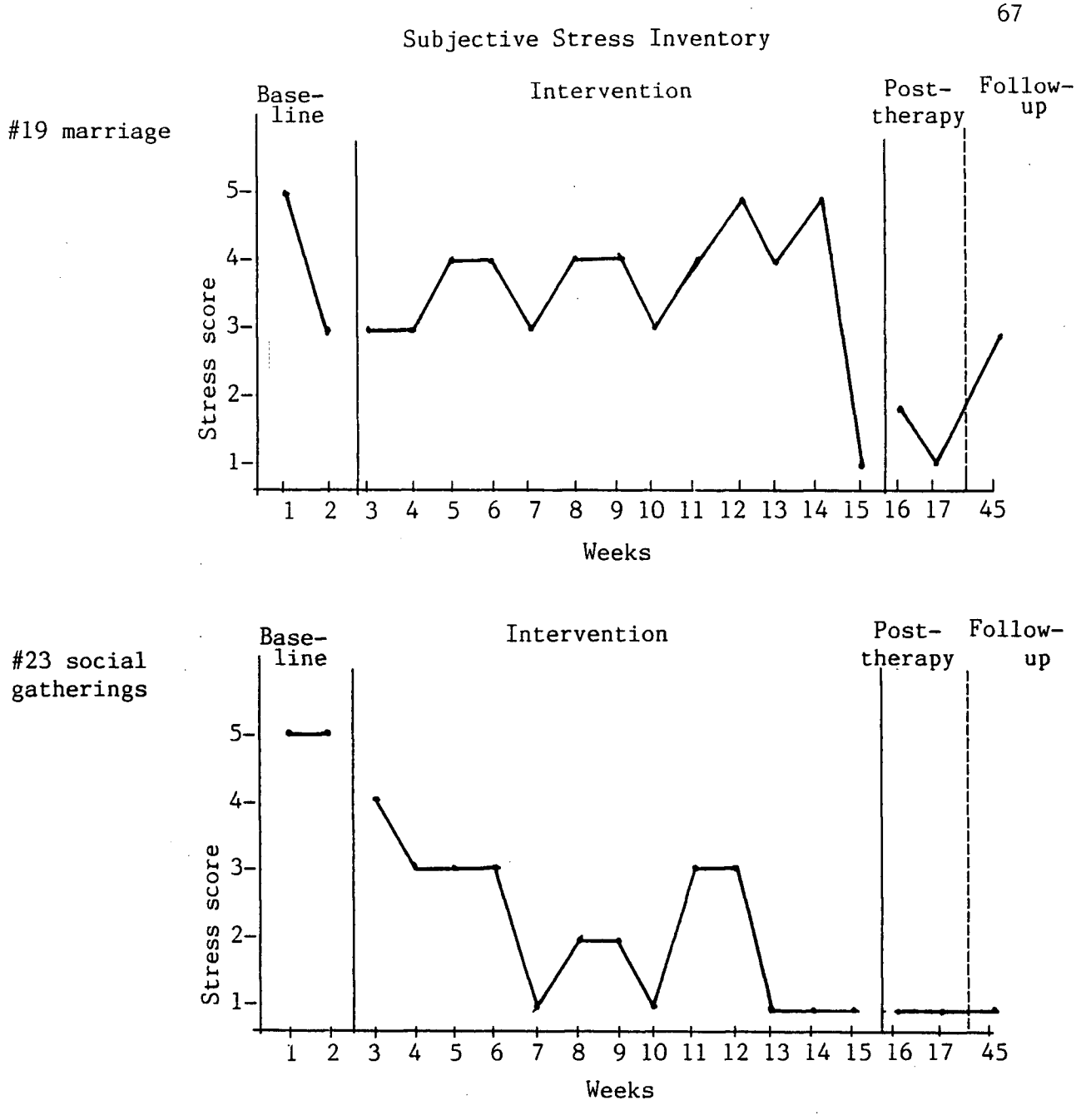
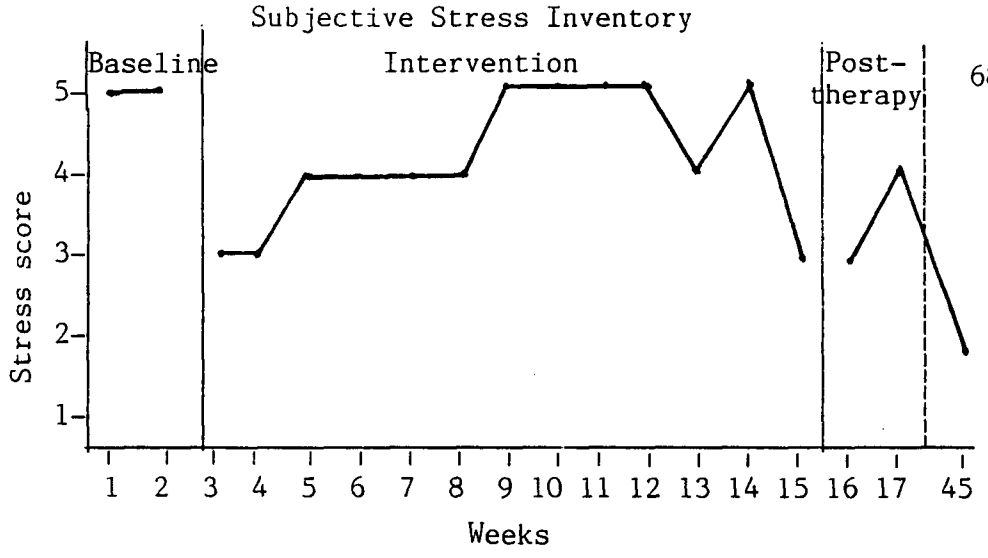
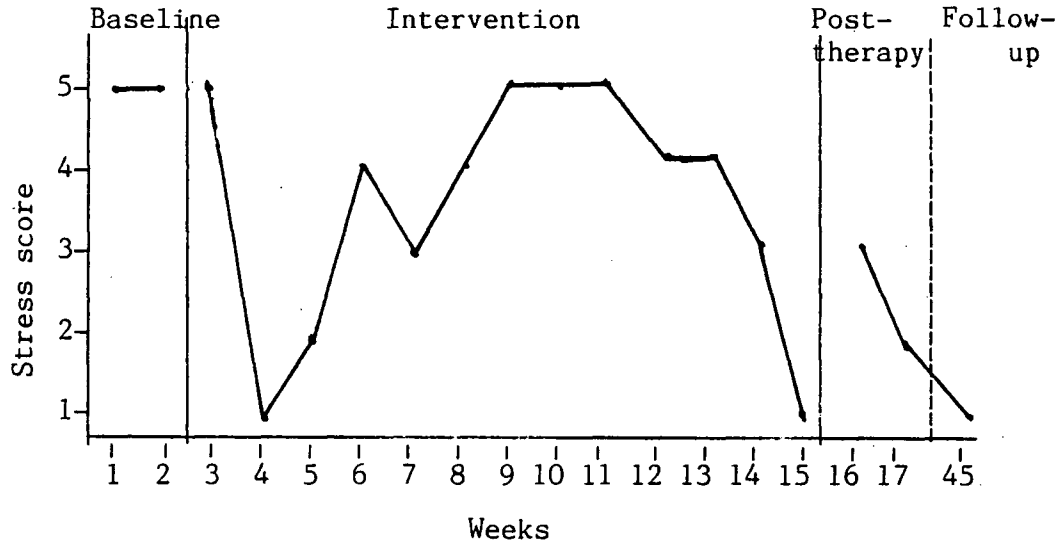



Figure 4-14. Ann's stress scores (SSI) at baseline, intervention, post-therapy and follow-up for marriage and social gatherings.

#8 eating




#16 change in weight




#21 change in eating habits

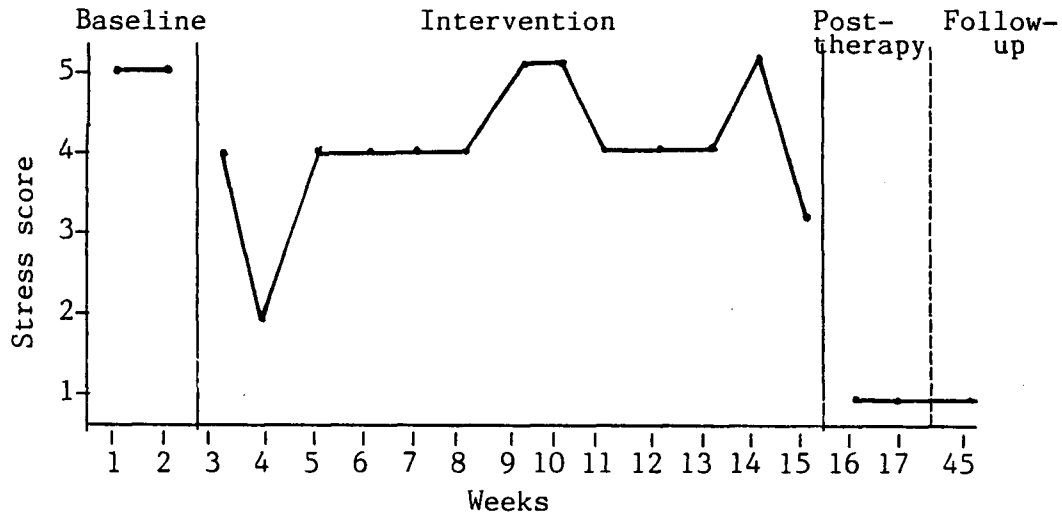
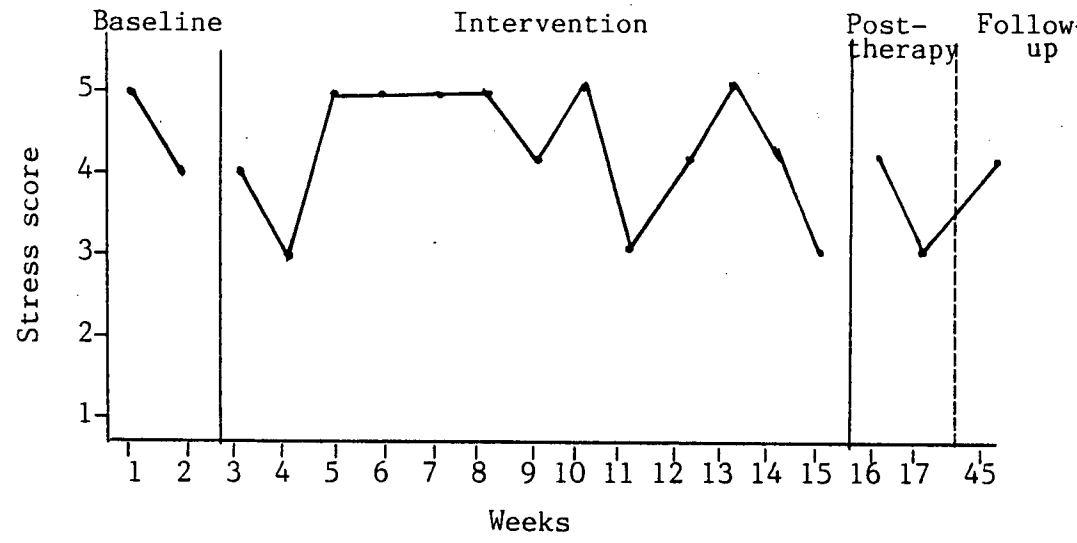



Figure 4-15. Ann's stress scores (SSI) at baseline, intervention, post-therapy and follow-up, for eating, change in weight and change in eating habits.

Subjective Stress Inventory

#17 taking medication




#20 minor illness

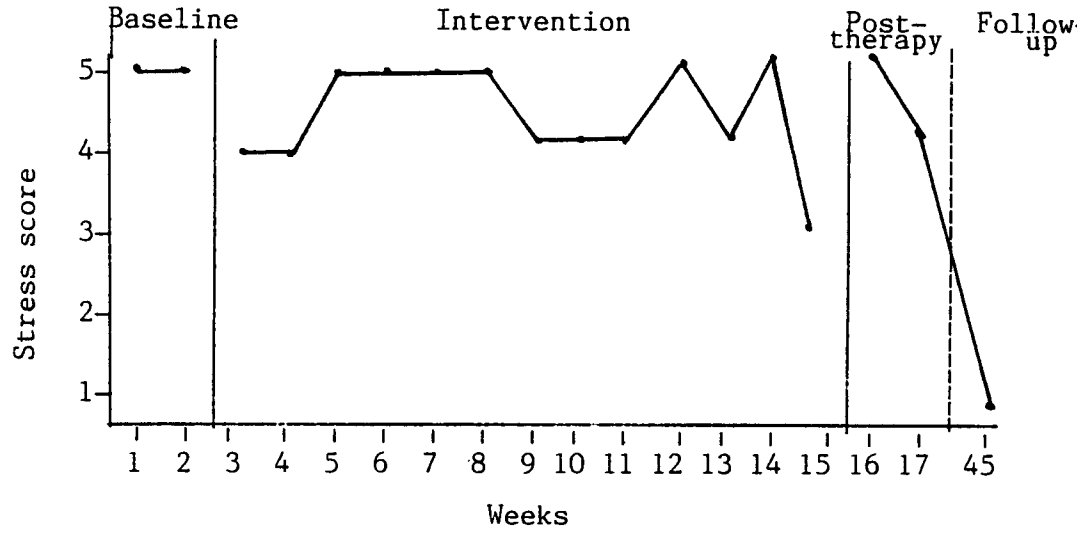



Figure 4-16. Ann's stress scores (SSI) at baseline, intervention, post-therapy and follow-up, for taking medication and minor illness.

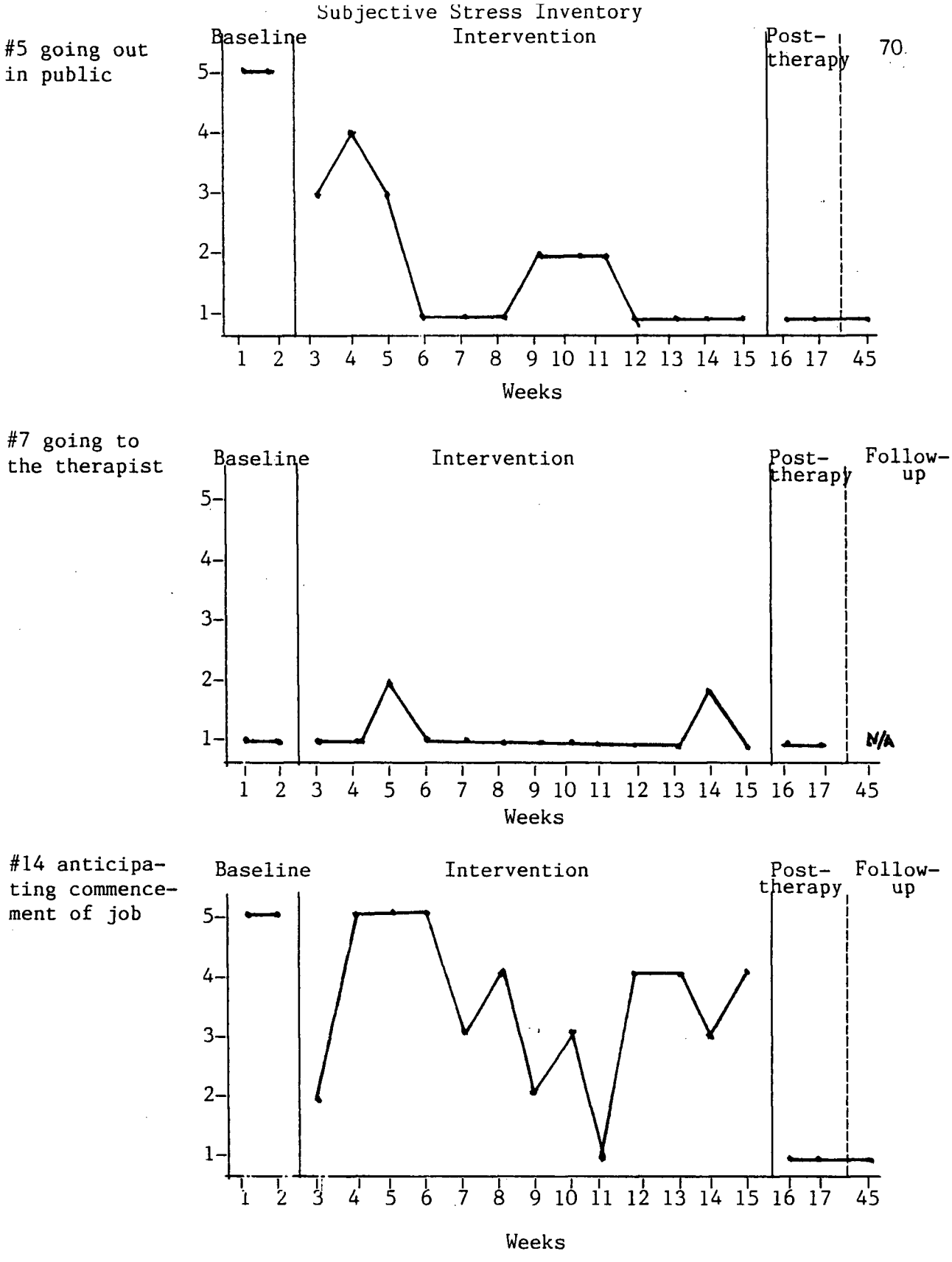



Figure 4-17. Ann's stress scores (SSI) at baseline, intervention, post-therapy and follow-up, for going out in public, going to the therapist and anticipation of commencement of job.

scores of 5, 4, post-therapy scores of 4, 3 and a follow-up of 4.

Item 18, money matters (figure 4-19) shows a baseline of 1 and follow-up of 1 but considerable fluctuation during therapy.

Stress level relating to her marriage, item 19 (figure 4-14) form the same configuration as item 1, relationship with spouse, change score from baseline to post-therapy=4.

Item 20, minor illness (figure 4-16) has a baseline of 5, post-therapy score of 4 and follow-up score of 1.

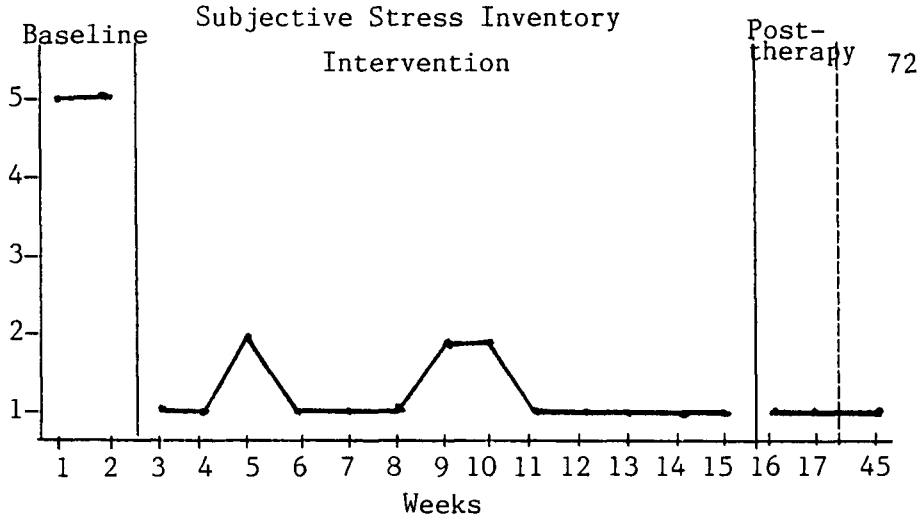
A high stress baseline of 5 in item 21, eating habits, (figure 4-15) (week 4 score=2) responded initially to the intervention but gradually retreated back towards the baseline (5) until the post-therapy (1) and follow-up (1) reports.

As with falling asleep, item 22, sleep habits (figure 4-18) improved dramatically upon commencement of therapy from baseline of 5 to scores of 1 in the first two weeks of the intervention and maintained this improvement throughout the duration and the follow-up except for weeks 5 and 14.

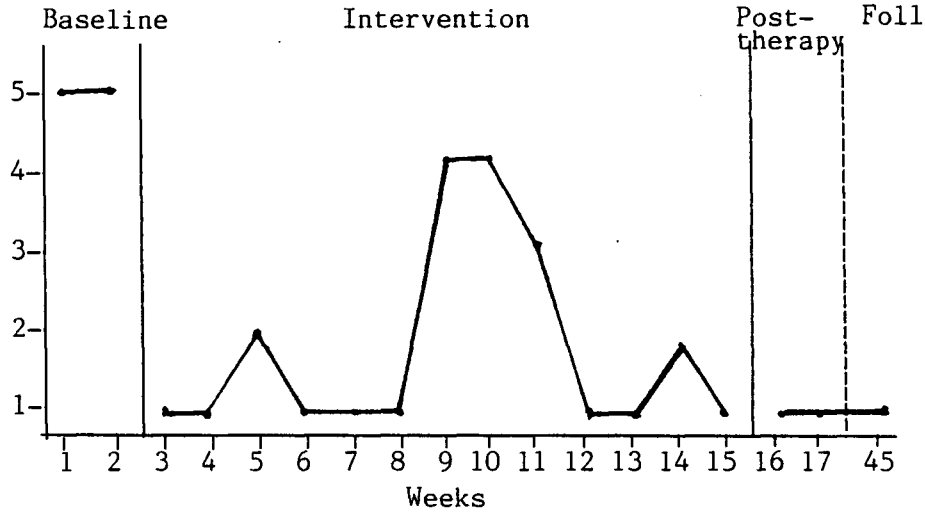
The social gatherings, item 23, (figure 4-14), shows a stress reduction slope (baseline=5) levelling off towards the end of therapy and maintaining low stress (1) through the post-therapy and follow-up.

Figure 4-20 shows Ann's total stress scores at the

#12 going to sleep




#13 amount of sleep




#22 change in sleeping habits

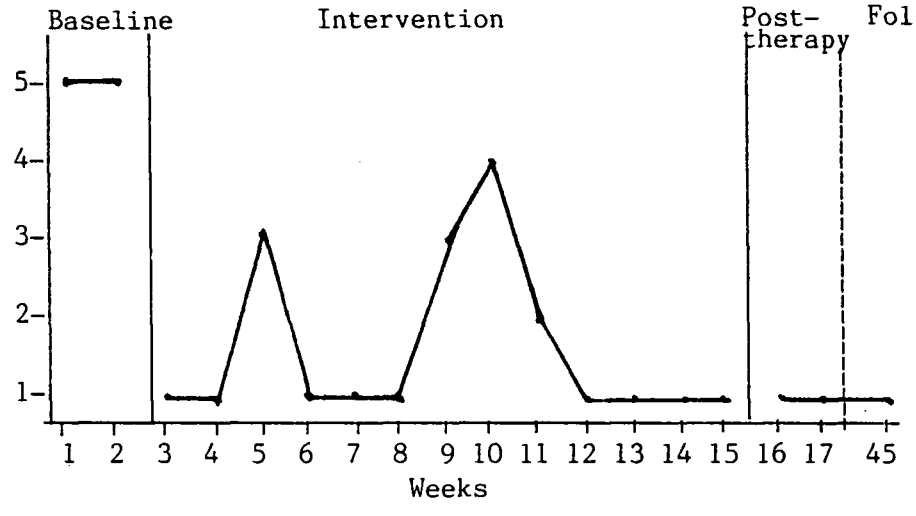



Figure 4-18 Ann's stress scores (SSI) at baseline, intervention, post-therapy and follow-up, for going to sleep, amount of sleep and change in sleeping habits.

Subjective Stress Inventory

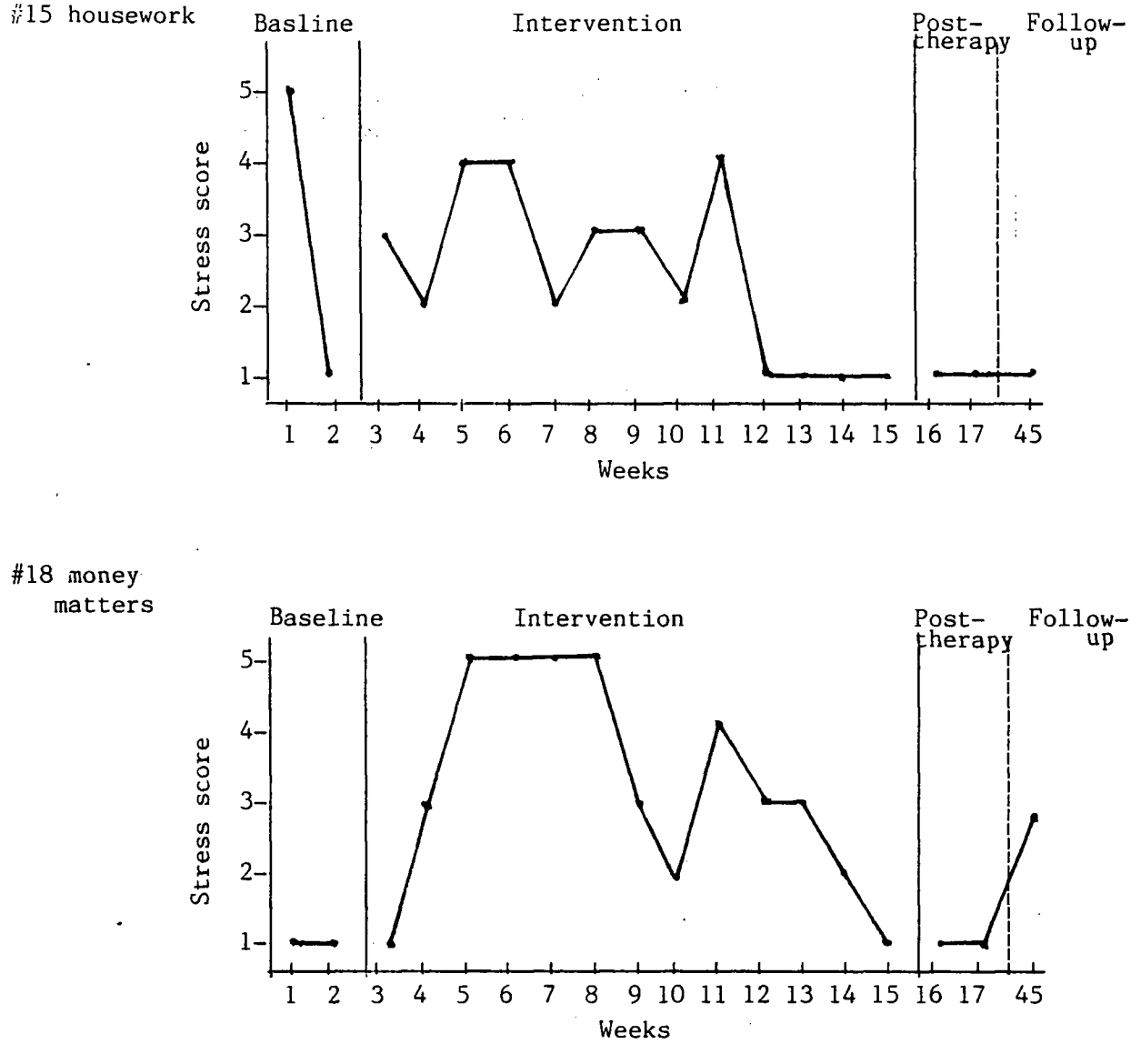



Figure 4-19. Ann's stress scores (SSI) at baseline, intervention, post-therapy and follow-up, for housework and money matters.

baseline, during therapeutic intervention, post-therapy and six months later. The change score between conditions (baseline to intervention phase) is 51. The change score from baseline to follow-up is 53. Figure 4-21 shows the pre-, post- and follow-up score across the 18 SSI items.

## Physiological Symptoms Scale

Figure 4-22 illustrates the severity of symptoms in a pre-, post-therapy and follow-up assessment. All but one pre-therapy scores were '3' or above with an overall severity total of 32. By the post-therapy reports, the highest score was '2' for a severity total of 10 and the follow-up showed one symptom at '2', the rest at '1' for a total score of 9. As with the other objective and subjective tests, significant improvement has been shown to have taken place by the post-therapy assessment. Follow-up scores have confirmed success in maintaining this improvement.

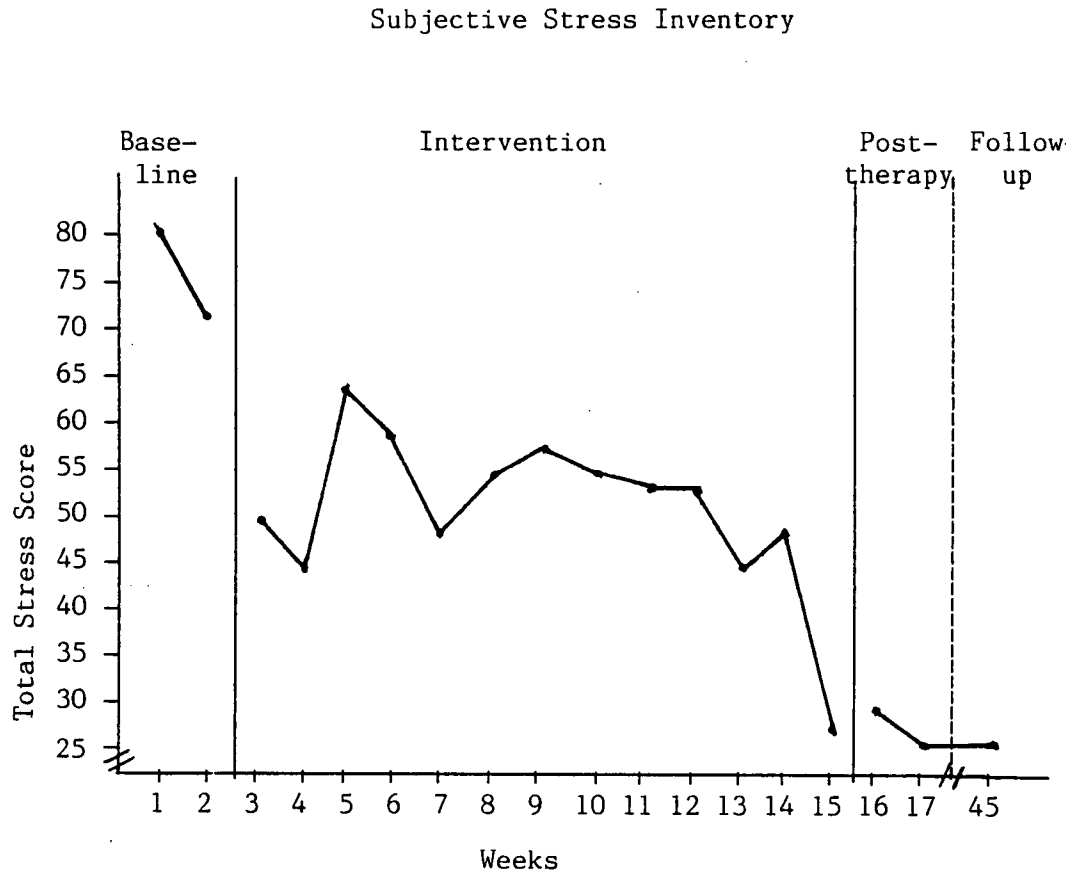
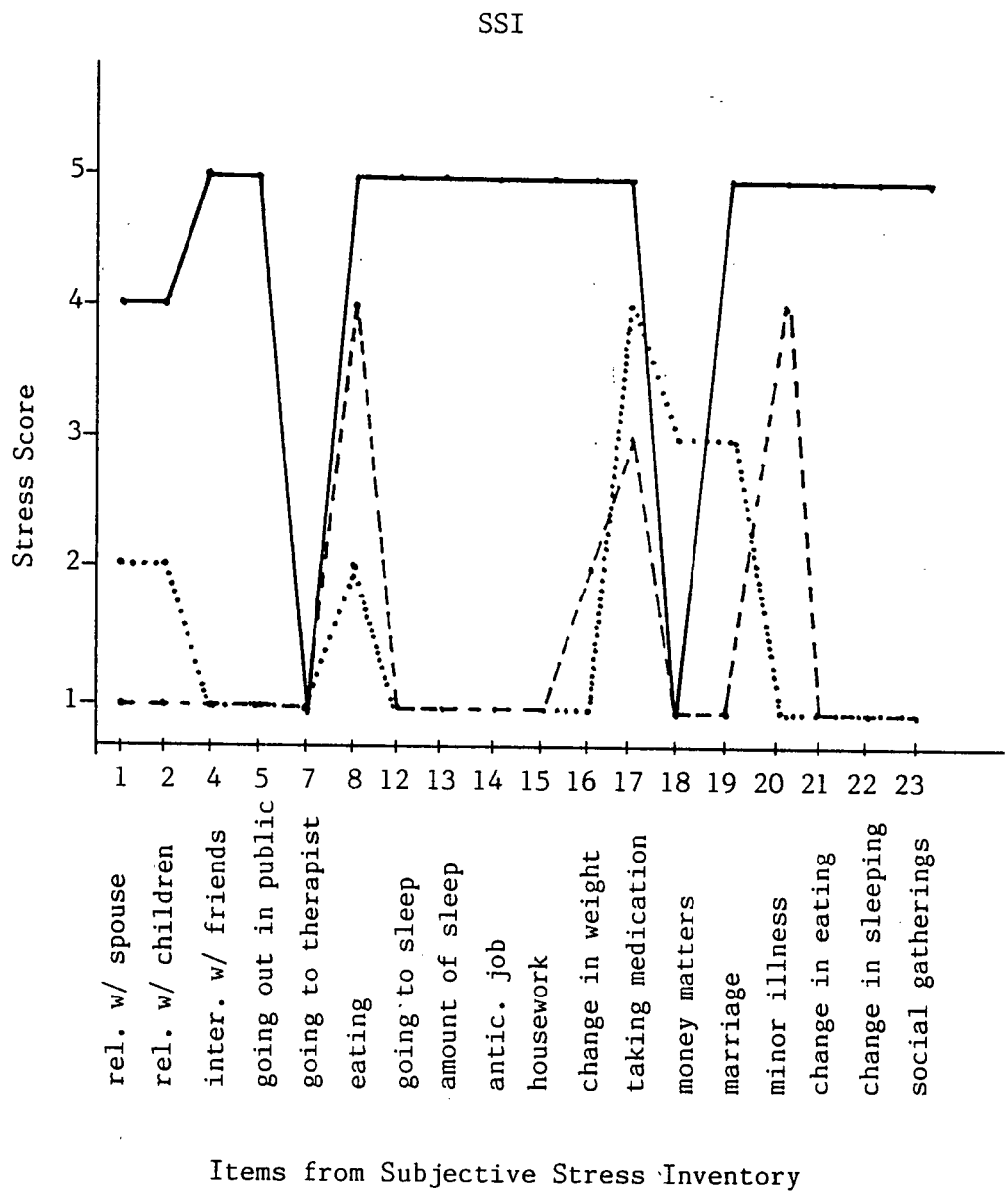



Figure 4-20. Ann's total stress score for baseline, intervention, post-therapy and follow-up.

Figure 4-21. Ann's stress scores for each of the Subjective Stress Inventory items taken pre-therapy (solid line), post-therapy (broken line) and at six-month follow-up (dotted line).



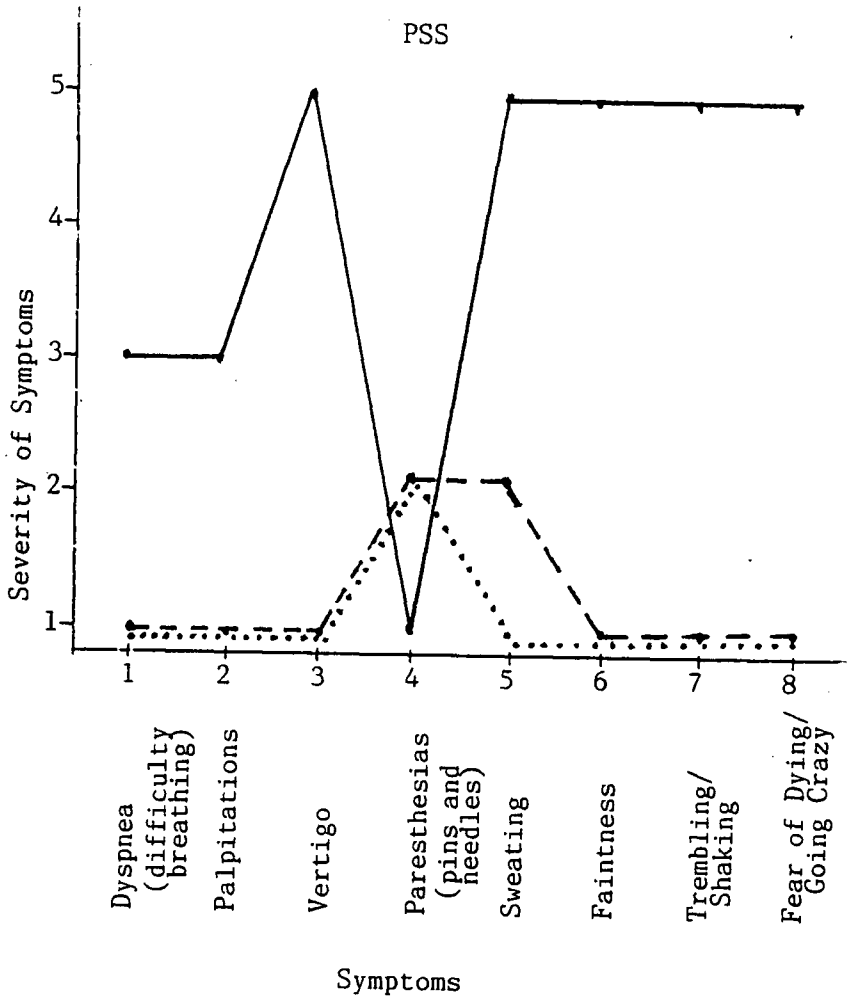



Figure 4-22. Ann's severity of symptoms scores for each of the items on the Physiological Symptoms Scale taken pre-therapy (solid line), post-therapy (broken line) and at six-month follow-up (dotted line.

# CHAPTER V

# DISCUSSION AND CONCLUSIONS

## Comparisons and Evaluations

Any assessment tool, including standardized tests, may provide incomplete and misleading information if interpreted literally and in isolation. The scales and inventories used in this study were intended to highlight problem areas, provide a clearer, more complete picture of the subject and to confirm or contradict reports from other tests. From the comparison and evaluation of test results we can generate an accurate and efficient clinical and research description of Ann, her problems and her progress.

In studying the test results, the therapist's expertise and clinical experience with the subject is valuable for assessment of the accuracy of the analyses. For instance, in the case of the analysis and interpretation of the MMPI clinical and research scales, caution is recommended in determining the profile validity. If the therapist's experience of the client is not consistent with some of the test results, the therapist must use discretion and not attach labels casually.

The pre-therapy profiles of the MMPI and TSCS present quite consistent pictures of the subject. The MMPI clinical scale analysis and interpretation describe the subject as tense, unduly worried and prone to physical ailments such as

headaches, stomach problems and insomnia. She scored more than two standard deviations above the mean on eight scales: Validity Scale F; Scale 1 (Hypochondriasis); Scale 2 (Depression); Scale 3 (Hysteria); Scale 4 (Psychopathic deviate); Scale 6 (Paranoia); Scale 7 (Psychasthenia): and Scale 8 (Schizophrenia).

This fits with an elevated self-criticism score on the TSCS and below average scores in overall self-esteem (she is anxious, depressed, unhappy, has low confidence) and identity, self-satisfaction, behaviour, physical self, moral-ethical self, family self and social self. High scores for general maladjustment, personality disorder and neurosis also seem to be in agreement with the MMPI results. From a clinical perspective, the first task was to identify the sources which were interfering with her emotional and physical well-being. Ann believed she had very little control over her circumstances which left her feeling powerless and worthless. This notion is confirmed by the baseline scores from the POMS. Her total mood disturbance (TMD) score is very high as a result of elevated levels of tension, depression, fatigue and confusion and a sense of depleted vigor.

The physiological symptoms (PSS) complaints at the baseline far exceeded later scores.

Eleven of the 18 subjective stress categories (SSI) were

stable at level '5' during baseline assessment with health and social issues being particularly stressful. For example, the social gatherings (item 23) score shows the high stress levels typically created by the cycle of the panic attack victim. She had a panic attack in a social situation, associated the unpleasant experience and physical reactions with that setting and eventually became panicky even at the thought of re-entering that situation so she would avoid it.

Post-therapy reports from the MMPI, TSCS, and PSS aligned to form a picture of significant overall improvement. Only one scale over 70 (Scale 4, Pd) remained on the MMPI.

On the TSCS, Ann's self-criticism score had dropped, her total positive score (overall self-esteem) was much higher and all other positive scores (except 'family') were above the mean (T=50). Most of the empirical scales had dropped with exception of 'personality integration' and 'defensive postive'.

The PSS also showed a reduction of symptoms in almost every category.

Significant improvement on the POMS and much of the SSI as well, all point to the succcess of the intervention.

The assessment indicate that Ann's self-esteem grew and developed as she accepted more control of her life. The explanation of the A-B-C-D-E theory gave her a better understanding of her situation and a belief in her own

ability to make positive and constructive changes. As the panic attacks reduced, going out in public and visiting friends became far less traumatic for her. Regular relaxation exercises and sustained improvement of her sleeping habits were beneficial for her attempts to cope with her problems.

In general, the follow-up study showed an extension of the progress seen in post-therapy. All the MMPI scales were within the normal range. The TSCS showed a healthy profile and the PSS, POMS and SSI scores were stable or showed continued improvement.

In summary, all of the tests indicated significant positive changes after the therapeutic intervention and the follow-up scores showed this improvement has been sustained six months later.

## Response to Hypotheses

In almost all cases, the change scores between the baseline and follow-up reports were significant and indicated that therapy was successful. The objective assessments (MMPI, TSCS, POMS) showed increased self-esteem, improved self-concept, normal (i.e. not pathological) personality profile and a reduction in unpleasant and static mood states.

Similarly, the subjective assessments (SSI, PSS) demonstrated reduced stress levels and fewer and less severe

physiological symptoms following the therapeutic intervention.

It was also suggested that the use of an audiotape of relaxation exercises might reduce time spent on trance induction. This variable was not measured but it was a valuable adjunct to the therapy and did seem to result in faster and easier trance induction. It also served to reinforce learnings from previous sessions and aid in helping Ann relax and sleep more restfully.

## Internal and External Validity

Was this rational hypnotherapeutic intervention responsible for the changes and improvements in Ann's condition? Mott (1986) warns that therapies using hypnosis represent multiple interventions which threaten internal validity. But is hypnotherapy a multiple intervention? It is a therapeutic approach which encompasses the hypnotherapist's own personality and imagination and involves learning and growth in and out of trance states. While this approach does employ a specific trance induction ritual, that is not to say that the 'non-hypnotic' supportive psychotherapy which may follow does not also include the subject spontaneously slipping in and out of trance. Therefore, this intervention is presented not as a potpourri of R.E.T., hypnosis and supportive psychotherapy. Rather it is a unified whole in

which the subject uses rational self-evaluation in and out of trance and the therapist facilitates this with direct supportive learning, in and out of trance.

Kazdin (1982) lists five threats to internal validity: history, maturation, testing, statistical regression to the mean and multiple interventions. The therapy log was intended to guard against these hazards. By keeping track of significant events, such as results from medical tests, her husband's unemployment and the financial strains of moving to a new house, we could account for each one's impact on her current condition.

Mott (1986) points out that when symptoms are severe even an ineffective intervention will show some regression toward the mean. The results presented earlier clearly show that there was not simply a mild improvement but profiles which went from pathologically deviant to healthy, well-balanced profiles.

The researcher has attempted to present the theoretical framework of this intervention in such a way that others may replicate the study with clients with similar diagnoses. The underlying psychodynamics, client's degree of motivation and external support systems will not be the same. Nor will the interaction between the therapist and client.

The generalizability of any single subject design is restricted since we cannot assume that an intervention which

was successful in a solitary case will be successful in all cases. However, by following Nugent's (1985) guidelines, the researcher has made this study as valid and reliable as possible. The intervention has been outlined so that it may be duplicated and tested.

## Justification of the Study

New insights are a prerequisite for single case reports which are worthy of publication (Fromm, 1981). This study proposes to contribute to the literature a new approach to rational self-direction within a hypnotherapeutic framework.

This study approaches a replication of similar case report (Tosi, Howard & Gwynne, 1982) but rejects the need for the client to re-experience negative affect in an effort to identify self-defeating cognitions and behaviours in a situation chosen by the therapist. The present research applies a less directive approach, trusting the subject's subconscious mind to select an appropriate event (Haley, 1973). "You don't tell yourself what you are going to do in a trance state. Your unconscious mind knows an awful lot more than you do," (Erickson, 1980). The subject views the event on a video screen, permitting her to objectively evaluate her thoughts, actions and behaviours without having to relive an unpleasant experience. As a result the therapy may be less traumatic for the client and may answer more directly her conscious and subconscious needs.

This study also responds to a call by Nugent (1985) for hypnotherapists to upgrade single methodology in the continuing effort to develop reliable therapeutic technology. In the opinion of the present researcher, the primary area of contention is the baseline phase. The clinical inappropriateness of an extended baseline period has been discussed earlier in the study as was the therapist's inability to await indisputable signs of condition stability. This is the point at which sound methodology and clinical discretion are at odds. The compromise in this study was to link a two week baseline period with the case history which described, in anecdotal fashion, the subject's condition deterioration over several months prior to her seeking therapy. This approach was favoured over extending the baseline and withholding therapy.

Unlike a case study, this single case research design using pre- and post-therapy measures, repeated measures over time, standardized assessments and self-reports considerably reduces any threats to internal validity and allows the researcher to posit that it was the intervention and not other factors which were responsible for the change which took place.

# SUMMARY AND CONCLUSIONS

In this study, the present researcher has proposed and tested a form of rational hypnotherapy which emphasizes cognitive restructuring to overcome anxiety neurosis and panic attacks. These disorders are widespread, frequent and often debilitating but the prognosis for their treatment is promising. It is therefore the responsibility of the researcher to investigate and verify or reject tentative hypotheses so that clinicans encountering anxiety states and panic attacks may be sure of selecting an effective intervention program.

The therapeutic approach taken in this study involved hypnotherapy comprised of relaxation exercises, guided imagery, and subconscious direction of critical incidents, rational self-evaluation in cognitive restructuring and behavioural rehearsal on the part of the subject.

A single subject research design was employed to test both the theory in practice and the feasibility and efficacy of this design for clinical reports. In this research we have attempted to take another small step toward creating a design which is compatible with clinical priorities while maintaining a sound methodology.

The subject was a woman in her early forties who was suffering panic attacks, associated physiological problems and generalized anxiety states. She came in seeking

therapy and was very motivated to change. She agreed to complete the tests described earlier in the study, and did so without exception.

Baseline assessment of her condition indicated it to be severe and deteriorating. Improvement in her condition within the first two weeks of therapy was a result of relief from her sleeping problems, the calming effects of the relaxation exercises and her own expectations that therapy would be successful. After two weeks, many of her symptoms deteriorated back towards the baseline phase. The gradual overall trend acceleration from this point is more expressive and indicative of the treatment success than the earlier phase as it includes the peaks and setbacks which occurred as therapy progressed.

By the end of the therapeutic intervention period, most of her symptoms had regressed, she no longer suffered panic attacks and her physical condition had improved. Ann's own perception of herself was that she felt better, had a greater understanding of herself and her resources, she was no longer fearful, and reported that she had suffered no more panic attacks. Her increased social interaction and involvement in activities outside her home confirm this.

This study confirms the report by Tosi, Howard & Gwynne (1982) who implemented a successful cognitive-experiential intervention for anxiety neurosis.

Rational hypnotherapy is effective, as demonstrated by the continuous assessment results and the client's self-report. It has the advantage of being relatively short-term and it encourages the client, in collaboration with the therapist, to play a major role in resolving his/her problems.

# References

Anastasi, A. (1982). Psychological Testing: Fifth Edition. NY: MacMillan Publishing Co. Inc.

Aaroz, D.L. (1985). The new hypnosis. NY:Brunner/Mazel Publishers.

Ballenger, J.C. (1984). Psychopharmacology of the anxiety disorders. Psychiatric Clinics Of North America, 7, 757-771.

Bandler, R. & Grinder, J. (1975). Patterns of the hypnotic techniques of Milton H. Erickson, M.D., Vol. 1. Calif: Meta Publications.

Barber, T.X. (1969). Hypnosis: A scientific approach. New York: Van Nostrand Reinhold.

Barber, T.X. & Glass, L.B. (1962). Significant factors in hypnotic behaviour. J. Abnorm. Soc. Psychol., 65, 411-418.

Beck, A.T. & Emery, G. (1985). Anxiety disorders and phobias. NY: Basic Books, Inc.

Bloom, M. & Fischer, J. (1982). Evaluating practice: Guidelines for the accountable professional. NJ: Prentice-Hall, Inc.

Blumenthal, R.,A. (1984). Rational suggestion therapy: A subconscious approach to R.E.T. Medical Hypnoanalysis, 2, 57-60.

Borg, W.R. & Gall, M.D. (1979). Educational research: An introduction. NY: Longman, Inc.

Boutin, G.E. (1978). Treatment of test anxiety by rational stage directed hypnotherapy: A case study. American Journal of Clinical Hypnosis, 21(1), 52-57.

Burns, D.D. (1980). Feeling good: The new mood therapy. Signet Books.

Butcher, J.N. & Pancheri, P. (1976). A handbook of cross-national MMPI research. Minneapolis: University of Minnesota Press,

Chaplin, J.P. (1975). Dictionary of Psychology. New York: Dell Publishing Co.

Cheek, D.B. & LeCron, L.M. (1968). Clinical hypnotherapy. NY: Grune & Stratton.

Clarke, J.C. & Jackson, J.A. (1983). Hypnosis and behaviour therapy: The treatment of anxiety and phobias. NY: Springer Publishing Co.

Dahlstrom, W.G., Welsh, G.S. & Dahlstrom, L.E. (1972). An MMPI Handbook, Vol. I: Clinical Interpretation. University of Minnesota Press, Minneapolis.

Dahlstrom, W.G. & Dalstrom, L.E. (1979). Basic readings on the MMPI: A new selection on personality measurement. Minneapolis: University of Minnesota Press.

Diamond, M.J. (1986). Hypnotically augmented psychotherapy: The unique contributions of the hypnotically trained clinician. American Journal of Clinical Hypnosis, Vol. 28, No.3, 83-85.

Diagnostic and Statistical Manual of Mental Disorders, Ed. 3 (1980). Washington, DC, American Psychiatric Association.

Ellis, A. (1962). Reason and emotion in psychotherapy. NY: Lyle Stuart.

Ellis, A. & Bernard, M.E. (1985). Clinical applications of rational-emotive therapy. NY: Plenum Press.

Erickson, M.H. (1980). A teaching seminar with Milton H. Erickson . J.K. Zeig (Ed.). NY: Brunner/Mazel Publishers.

Erickson, M.H. & Rossi, E.L. (1979). Hypnotherapy: An exploratory casebook. Irvington Publishers, Inc.

Fitts, W.H. (1965). Tennessee self-concept scale: Manual. Nashville, Tenn: Counselor Recordings and Tests.

Frankel, F.H. (1976). Hypnosis: Trance as a coping mechanism. NY: Plenum Medical Book Co.

Fromm, E. (1981). How to write a clinical paper: A brief communication. International Journal of Clinical and Experimental Hypnosis, 19, 5-9.

Gable, R.K., LaSalle, A.J. & Cook, K.E. (1973). Dimensionality of self-perception: Tennessee self-concept scale. Perceptual and Motor Skills, 36, 551-560.

Garrett, R.C. & Waldmeyer, U.G. (1985). The pill book of anxiety and depression. Food and Drug Book Co., Inc.

Golan, H.P. (1986). Using hypnotic phenomena for physiological change. American Journal of Clinical Hypnosis,3), 157-162.

Gorman, J.M., Liebowitz, M.R. & Klein, D.F. (1984). Current concepts: Panic disorder and agoraphobia. Mich: Upjohn Company.

Grinder, J. & Bandler, R. (1981). Trance-formations: Neuro-linguistic programming and the structure of hypnosis. Utah: Real People Press.

Grinder, J., DeLozier, J. & Bandler, R. (1977). Patterns of the hypnotic techniques of Milton H. Erickson, M.D., Vol II. Calif: Meta Publications.

Gruenewald, D. (1986). Dissociation: Appearance and meaning. American Journal of Clinical Hypnosis, 29(2).

Gwynne, P.H., Tosi, D. & Howard, L. (1978). Treatment of non-assertion through rational stage directed hypnotherapy (RSDH) and behavioral rehearsal. American Journal of Clinical Hypnosis, 20(4), 263-270.

Haley, J. 91973). Uncommon therapy. NY: W.W. Norton & Co. Ltd.

Haley, J. (Ed.). (1967). Advanced techniques of hypnosis and therapy. NY: Grune & Stratton.

Hamilton, M. (1982). In R. Mathew (Ed.). (1982). The biology of anxiety. NY: Brunner/Mazel.

Hartmann, D.P., Gottman, J.M., Jones, R.R., Gardner, W., Kazdin, A.E. & Vaught, R.S. (1980). Interrupted time-series analysis and its application to behavioral data. Journal of Applied Behavior Analysis, 13(4), 543-559.

Haskell, D.H., Pugatch, D. & McNair, D.M. (1969). Time-limited psychotherapy for whom? Arch. gen. Psychiat. 2, 546-552.

Hathaway, S.R. & McKinley, J.C. (1951). Minnesota multiphasic personality Inventory (Rev.Ed.). NY: The Psychological Corporation.

Hersen, M. & Barlow, D. (1976). Single case experimental designs. NY: Pergamon Press.

Hilgard, E.R. (1977). Divided consciousness. NY: John Wiley & Sons.

Hilgard, E.R. (1965). Hypnotic susceptibility. NY: Harcourt, Brace & World, Inc.

Holstein, R.M. (1970). Patient and therapist initial expectancies for psychotherapeutic change as they relate to treatment outcomes. Unpublished doctoral dissertation, Boston University.

Howard, L., Reardon, J.P. & Tosi, D. (1982). Modifying migraine headache through rational state directed hypnotherapy: A cognitive-experiential perspective. International Journal of Clinical and Experimental Hypnosis, Vol. XXX(3), 257-269.

Jones, R., Vaught, R.S. & Weinrott, M. (1977). Time-series analysis in operant research. Journal of Applied Behavior Analysis, 10, 151-166.

Kazdin, A.E. (1982). Single case research designs. NY: Oxford University Press.

Kohn, H.B. (1984). Clinical applications of hypnosis: A manual for the health professional. IL: Charles C. Thomas, Publisher.

Kroger, W.S. (1977). Clinical and experimental hypnosis. Philadelphia: J.B. Lippincott Co.

Lorr, M., McNair, D.M. & Weinstein, C.J. (1964). Early effects of chlordizepoxide (Librium) used in psychotherapy. Journal of Psychiat. Res., 1, 257-270.

Lorr, M., McNair, D.M., Weinstein, G.J., Michaux, W.W. & Raskin, A. (1961). Meprobamate and chlorpromazine in psychotherapy. Arch. gen. Psychiat., 4, 381-389.

Marks, P., Seeman, W. (1974). The actuarial use of the MMPI with adolescents and adults. Baltimore: Williams & Wilkins Co.

Mathew, R. (Ed.). (1982). The biology of anxiety. NY: Brunner/Mazel Inc.

McNair, D.M., Lorr, M. & Droppleman, L.F. (1971). Manual for profile of mood states. Educational and Industrial Testing Service, San Diego.

Meer, J. (1985). Phobia therapy: Learning how to deal with fear and the fear of fear. Psychology Today, 30-31.

Miller, A. (1986). Brief reconstructive hypnotherapy for anxiety reactions: Three case reports. American Journal of Clinical Hypnosis, 28(3).

Mott, T. (1986). Guidelines for writing case reports for the hypnosis literature. American Journal of Clinical Hypnosis, 27, 1-7.

Nugent, W.R. (1985). A methodological review of case studies published in the American Journal of Clinical Hypnosis. American Journal of Clinical Hypnosis, 27, 191-200.

Paul, G.L. (1983). In Clarke, J.C. & Jackson, J.A. Hypnosis and behavior therapy: The treatment of anxiety and phobias. NY: Springer Publishing Co.

Pitts, F.N. Jr. & McClure, J.N. Jr. (1967). Lactate metabolism in anxiety neurosis. New England Journal of Medicine, 277: 1329-1336.

Posner, M. (1973). Coordination of internal codes, in W. Chase (Ed.) Visual information processing. NY: Academic Press.

Reardon, J.P., Tosi, D.J., & Gwynne, P.H. (1977). The treatment of depression through rational stage directed hypnotherapy (RSDH): A case study. Psychotherapy: Theory, Research & Practice, 14(1), 95-103.

Ruch, J.C., Morgan, A.H., & Hilgard, E.R. (1974). Measuring hypnotic responsiveness: A comparison of the Barber suggestibility scale and the stanford hypnotic susceptibility scale, Form A. International Journal of Clinical and Experimental hypnosis, 22, 365-376.

Sanders, S. (1986). A brief history of dissociation. American Journal of Clinical Hypnosis, 29(2), 83-85.

Sheehan, D.V. (1986). The anxiety disease. Bantam Books.

Smail, D. (1984). Illusion and reality: The meaning of anxiety. London: J.M. Dent & Sons Ltd.

Soloff, P.H. & Bartel, W.G. (1979). Effects of denial on mood and performance in cardio-vascular rehabilitation. Journal of Chron. Dis., 32, 307-313.

Spiegel, H. & Spiegel, D. (1978). Trance and treatment. NY: Basic Books.

Stanwyck, D.J. & Garrison, W.M. (1982). Detection of faking on the Tennessee Self-Concept Scale. Journal of Personality Assessment, 46, 426-431.

Sternberg, S. (1975). Memory scanning; New findings and current controversies. Quarterly Journal of Experimental Psychology, 27(1).

Stitt, F.W., Frane, M. & Frane, J.W. (1977). Mood change in rheumatoid arthritis: Factor analysis as a tool in clinical research. Journal of Chron. Dis., 30, 135-146.

Suinn, R.M. In O.K. Buros (Ed.) The mental measurements yearbook, NJ: Gryphon Press.

Tawney, J.W. & Gast, D.L. (1984). Single subject research in special education. Ohio: Charles E. Merrill Publishing Co.

Tosi, D.J. (1974). Youth toward personal growth: A rational emotive approach. Columbus, Ohio: Merrill.

Tosi, D.J. & Baisden, B.S. (1984). Cognitive-experiential therapy and hypnosis, in W.C. Wester & A.H. Smith, Jr. (Eds.) Clinical hypnosis: A multidisciplinary approach, 155-178. Philadelphia: J.B. Lippincott Co.

Tosi, D., Howard, L. & Gwynne, P.H. (1982). The treatment of anxiety neurosis through rational state directed hypnotherapy: A cognitive-experiential perspective. Psychotherapy: Theory, Research & Practice, 191, 95-101.

Walch, S.L. (1976). The red balloon technique of hypnotherapy: A clinical note. International Journal of Clinical and Experimental Hypnosis, Vol. XXIV(1), 10-12.

Watkins, J.G. (1986). Hypnoanalytic egostate therapy. Workshop presented in Vancouver, B.C.

Watzlawick, P. (1978). The language of change: Elements of therapeutic communication. New York: Basic Books.

White, O.R. & Haring, N.G. (1980). Exceptional Teaching. Columbus, Ohio: Charles E. Merrill.

# APPENDIX A

## Criteria for Panic Disorder

American Psychiatric Association
Diagnostic and Statistical Manual of Mental Disorders, Third Edition
Washington, D.C., APA, 1980

## Criteria for Panic Disorder

At least three panic attacks within a three-week period in circumstances other than during marked physical exertion or in a life-threatening situation. The attacks are not precipitated only by exposure to a circumscribed phobic stimulus.

Panic attacks are manifested by discrete periods of apprehension or fear, and at least four of the following symptoms appear during each attack:

1. Dyspnea
2. Palpitations
3. Chest pain and discomfort
4. Choking and smothering sensations
5. Dizziness, vertigo, or unsteady feelings
6. Feelings of unreality
7. Paresthesias
8. Hot and cold flashes
9. Sweating
10. Faintness
11. Trembling and shaking
12. Fear of dying, going crazy, or doing something uncontrolled during an attack

# APPENDIX B

## Trance Induction and Intervention

Trance Induction

"Make yourself as comfortable as you can...allow your muscles to relax... close your eyes...feel the sensations, warm and relaxing...allow them to drift down and down...allow the music and my voice and any surrounding sounds to become part of your comfort and relaxation...take a deep breath and gruadually release all the tension and stress from your body system...take in the oxygen so that every body cell will be revitalized, energized...each time you exhale let all the tension and stress leave your body...and let the music make you feel more and more relaxed...drifting...drifting...you make feel certain sensations... allow them to become more comfortable, more relaxed...as all parts of your body can become more restful, more limp...with each breath you may notice your body is just beginning to feel more and more relaxed, more and more calm...allow yourself to feel the sensations of relaxation in your muscles, in your chest, in your arms, in any part of your body...consciously you don't need to pay attention to all the things I'm saying to you because consciously you may be thinking about other things or fantasizing about something else...your unconscious mind will understand and remember the things I'm going to talk about and your unconscious mind will utilize the things I'm going to be talking about, for your own benefit...I'll count from five backwards to one and you can drift deeper and deeper, more and more relaxed..5... inhaling...exhaling...4...drifting down...3...2...allow yourself to drift a little deeper...breathing very regularly...heart rate is normal...all the internal functions are normalized...1...and relax.

(This induction, and variations of it, can take from 10 to 15 minutes).

Pleasant Scene

(The client is asked to think of a pleasant scene before the trance induction. The therapist should use the words and adjectives supplied by the client to describe the scene to help her visualize and experience it more fully).

"Imagine you're at a beautiful place...fresh air...nice breeze...birds in the distance...enjoy the sensations of comfort...breathe in the fresh air and let it revitalize and energize your whole body system...let your body absorb all the energy...enjoy your quiet, peaceful surroundings... feel the warm sun on your face and your shoulders...let those feelings within you of peace and confidence and calmness fill your body...allow them to reenergize those positive feelings within you...you may not hear all the things I'm saying...you may be listening to the waves rolling onto the beach...or you may be thinking of something else...your unconscious mind will remember...now spend a few moments enjoying your beautiful surroundings...I will be quiet for a few moments so you can completely enjoy your safe, peaceful,relaxing place...(therapist remains silent for 2-4 minutes).

Red Balloon

"Now I want you to sit down there in that comfortable place...that relaxing place...see a basket with a pencil and paper beside you... you may write on that paper anything thats bothering you...anything that causes you discomfort or problems... it may be an incident or a person...anything at all...there may be one or there may be more than one...write each one down on a separate piece of paper...when you've done that, breathe in and out three times...now, throw the pieces of paper and the pencil into the basket...get rid of all your tension and stress...look up from the basket and you can see its attached to a big helium balloon, a red helium balloon...let it go...picture it floating away...drifting up and up into the sky...away and away and

away...so beautiful, so relaxed and calm...drifting up and up into the blue sky so that all you can see is a red dot...enjoy the soft music and the quiet sounds and allow allthe sounds and feelings to become part of your relaxation...

Cognitive Restructuring

"Now its time to leave this pleasant scene but remember as you go that this is your place and you can return here any time you wish...so lets return to the office...still enjoying the sense of relaxation and peacefulness...comfortable, confident feelings...look around the office until you see the TV screen...tell me when you see the TV... I want you to visualize on that screen a situation which caused you discomfort or anxiety...picture yourself in that situation...as you see it, tell me about it...what are you thinking in that situation...and how are you feeling...how does your body feel at that moment...what are you doing in that situation...now, can you tell me about any of your thoughts or beliefs in that situation that you might now see as self-defeating or irrational...(allow client to make suggestions)...any others...alright, now I want you to return to your pleasant scene, and all the feelings of comfort and relaxation and calmness you feel there...feel the sun and the light breeze...allow the fresh air to refresh and revitalize you...allow yourself a few moments to feel all the positive sensations there...

Behaviour Rehearsal

"Now I want to you to return to the office and the TV screen...you can visualize the same situation again but this time see yourself with your new ideas, your more rational thoughts...tell me what you see this time, inserting those new thoughts...how are you feeling now... how does your body feel...what are you doing in that situation...

(Therapist works through situation in which client has subsituted more rational thoughts and beliefs resulting in new behaviours, emotions and physiological reactions).

(The therapist works through one or more situations with the client. As therapy progresses the client may volunteer more information, requiring fewer questions from the therapist).

Termination of Formalized Trance

"Now I'm going to count from one to five and as I do so you will begin to slowly wake up and as I'm counting you don't have to listen to me consciously because your unconscious will remember to forget what it wants to fet and remember as much as your conscious mind wants you to... 1...you'll feel comfortable and relaxed...2...as I count you can begin to open your eyes...3...still feeling relaxed and positive...4...5... when you're ready you can open your eyes feeling refreshed and relaxed."

(Following trance, the client may wish to review the events which took place and discuss the situation or situations and their ABCDE components).

# APPENDIX C

## Barber Suggestibility Scale

Barber, T.X.
Hypnosis: A Scientific Approach
New York: Van Nostrand Reinhold, 1969.

## The Barber Suggestibility Scale

The BSS can be administered under a variety of experimental conditions: with and without Hypnotic Induction, with and without Task Motivational Instructions, by means of a tape-recording or by oral presentation. Generally the scale has been administered to subjects with their eyes closed.

### Eight Test Suggestions

1. Arm Lowering. "Hold your right arm striaght out in front of you like this." (Guide the subject to extend the right arm directly in front of body at shoulder height and parallel to the floor.) "Concentrate on your arm and listen to me."

(Begin timing) "Imagine that your right arm is feeling heavier and heavier, and that it's moving down and down. It's becoming heavier and heavier and moving down and down. It weighs a ton! It's getting heavier and heavier. It's moving down and down, more and more, coming down and down, more and more; it's heavier and heavier, coming down and down, more and more, more and more." (End 30 seconds)

"You can relax your arm now." (If necessary, ask the subject to lower the right arm.)

Objective score criterion: 1 point for response of 4 inches or more. (Response is measured by placing a ruler near the subject's hand at the beginning of the suggestions and noting degree of displacement at the end of the 30-second suggestion period.)

2. Arm Leviation. "Keep your eyes closed and put your left arm straight out in front of you in the same way. Concentrate on your

arm and listen to me."

(Begin timing) "Imagine that the arm is becoming lighter and lighter, that it's moving up and up. It feels as if it doesn't have any weight at all, and it's moving up and up, more and more. It's as light as a feather, it's weightless and rising in the air. It's lighter and lighter, rising and lifting more and more. It's lighter and lighter and moving up and up. It doesn't have any weight at all and it's moving up and up, more and more. It's lighter and lighter, moving up and up, more and more, higher and higher." (End 30 seconds)

"You can relax your arm now." (If necessary, ask the subject to lower the arm.)

3. Hand Lock. "Keep your eyes closed. Clasp your hands together tightly, and interlace the fingers." (If necessary, the experimenter states, "Press your hands together, with palms touching," and assists the subject to interlock the fingers and to bring the palms together.) "Put them in your lap. Concentrate on your hands and hold them together as tightly as you can."

(Begin timing) "Imagine that your hands are two pieces of steel that are welded together so that it's impossible to get them apart. They're stuck, they're welded, they're clamped. When I ask you to pull your hands apart, they'll be stuck and they won't come apart no matter how hard you try. They're stuck together; they're two pieces of steel welded together. You feel as if your fingers are clamped in a vise. Your hands are hard, solid, rigid! The harder you try to pull them apart the more they will stick together! It's impossible to pull your hands apart! The more you try the more difficult it will become. Try, you can't." (End 45 seconds)

(5 second pause) "Try harder, you can't." (10 second pause) "You can unclasp your hands now."

Objective score criteria: ½ point for incomplete separation of the hands after 5 second effort; 1 point for incomplete separation after 15 second effort.

4. Thirst Hallucination. "Keep your eyes closed." (Begin timing) "Imagine that you've just finished a long, long walk in the hot sun. You've been in the hot sun for hours, and for all that time you haven't had a drink of water. You've never been so thirsty in your life. You feel thirstier and thirstier. Your mouth is parched, your lips are dry, your throat is dry. You have to keep swallowing and swallowing. You need to moisten your lips. (3 second pause) You feel thirstier and thirstier, drier and drier. Thirstier and thirstier, dry and thirsty. You're very very thirsty! Dry and thirsty! Dry and thirsty!" (End 45 seconds) "Now, imagine drinking a cool, refreshing glass of water." (5 second pause)

Objective score criteria: ½ point if the subject shows swallowing, moistening of lips, or marked mouth movements: additional ½ point if the subject indicates during the "post-experimental" questioning that he or she became thirsty during this test (e.g., "I felt dry." "I was parched." "I felt somewhat thirsty."). (See "postexperimental" questions for final scoring criteria on this test.)

5. Verbal Inhibition. "Keep your eyes closed." (Begin timing) "Imagine that the muscles in your throat and jaw are solid and rigid, as if they're made of steel. They're so solid and so rigid, that you can't speak. Every muscle in your throat and mouth is so tight and so rigid that you can't say your name. The harder you try to say your

name the harder it becomes. You can't talk! Your larynx has tightened up; your throat and jaw feel as if they are in a vise. Your throat is clamped so tightly that you can't talk; you can't say your name. The harder you try the harder it will be. "It's useless, the words won't come out; you can't speak your name; it's impossible to talk! The harder you try to say your name the harder it will become. Try, you can't!" (End 45 seconds)

(5 second pause) "Try harder; you can't." (10 second pause) "You can say your name now."

Objective score criteria: ½ point if the subject does not say name after 5 second effort; 1 point if subject does not say name after 15 second effort.

6. Body immobility: "Keep your eyes closed." (Begin timing) "Imagine that for years and years you've been sitting in that chair just as you are now. Imagine that you've been sitting in that chair so long that you're stuck to it! It's as if you're part of the chair. Your whole body is heavy, rigid, solid and you weigh a ton. You're so heavy that you can't budge yourself. It's impossible for you to stand up, you're stuck right there! Your body has become part of the chair. When I ask you to stand up you won't be able to do it! You're stuck tight. The harder you try the tighter you'll be stuck and you won't be able to get up. You're heavy in the chair! Stuck in the chair you can't stand up. You're so heavy and stuck so tight. You can't stand up and you're stuck. Try you can't." (End 45 seconds)

(5 second pause) "Try harder, you can't." (10 second pause) "You can relax (or sit down) now."

(The subject is considered not standing if he or she rises

slightly from the chair without straightening into an erect posture. In this event, the experimenter says, "Try to stand fully erect. You can't", instead of "Try harder, you can't.")

Objective score criteria: ½ point if the subject is not standing fully erect after 5 second effort. 1 point if not standing fully erect after 15 second effort.

7. "Posthypnotic-like Response" (The auditory stimulus consists of tapping once on the metal back of a stop watch with a fountain pen). (Begin timing) "When this experiment is over in a few minutes and your eyes are open, I'll click like this (experimenter presents auditory stimulus) and you'll cough automatically. At the moment I click experimenter presents stimulus. You'll cough. It will happen automatically. When I click like this (stimulus is presented) you'll cough immediately. I'll click and you'll cough. When your eyes are open, I'll click (stimulus is presented and you'll cough. When I click you'll cough." (End 30 seconds)

Objective score criterion: 1 point if the subject coughs or clears throat "postexperimentally" when presented with the auditory stimulus.

8. Selective Amnesia. "Your eyes are still closed but I'm going to ask you to open them in a minute. When they're open I'm going to ask you to tell me about these tests." (Begin timing) "You'll remember all the tests and be able to tell me about them, all except for one. There's one that you'll completely forget about as if it never happened! That's the one where I said your arm was becoming lighter and moving up and up. You'll forget all about that and when you try to think about it, it will slip even further away from your mind. You will forget

completely that I told you that your arm was becoming lighter. This is the one test that you cannot remember! You will remember that I said your arm was heavy and all the other tests will be perfectly clear but the harder you try to remember that I told you your arm was rising the more difficult it will become. You will not remember until I give you permission by saying. Now you can remember, and then, and only then, you will remember that I said your arm was rising!" (End 45 seconds)

Objective score criterion: 1 point if the subject does not refer to the Arm Levitation item (Test-suggestion 2) but recalls at least four other items and then recalls Test-suggestion 2 in response to the cue words.

"Postexperimental" Objective Scoring of Test-suggestions 4, 7 and 8

"Open your eyes, the experiment is over."

Scoring of Test-suggestion 7. The "Posthypnotic-like" Response item (item 7) is scored at this point. The experimenter presents the auditory stimulus after the subject has opened his or her eyes and before conversation commences.

Scoring of Test-suggestion 8. The experimenter next asks: "How many of the tests can you remember?"

The experimenter prompts the subject by asking, "Were there any others?" "Can you think of any more?" and "Is that all?," until the subject mentions at least four of the test-suggestions. If the subject verbalizes the Arm Levitation item during the recital, he or she receives a score of zero on Test-suggestion 8 (Selective Amnesia). If the subject does not include the Arm Levitation item in the enumeration, the experimenter finally states, "Now you can remember," and, if the

subject still does not verbalize the Arm Levitation item, "You can remember perfectly well now!"

The subject receives a score of 1 point on Test-suggestion 8 (Selective Amnesia) if he or she mentions at least four of the test-suggestions, but does not mention the Arm Levitation item before given the cue words, and verbalizes the Arm Levitation item when given the cue words. "Now you can remember," or "You can remember perfectly well now!"

Final scoring of Test-suggestion 4. The objective scoring of Test-suggestion 4 is completed when the subject refers to this item during the recital. At this point the experimenter asks: "Did you become thirsty during this test?" If the subject answers, "Yes" to this question he or she receives the additional ½ point on Item 4. If the subject answers, "Yes" but adds a qualifying statement, e.g., "I had been thirsty to begin with," he or she is asked: "Did the imaginary glass of water help quench your thirst?" If the subject now answers, "Yes" he or she receives the additional ½ point.

The maximum Objective score obtainable on the BSS is 8 points.

"Revised" Subjective Scores

After Objective scores have been assigned, the subject is given a mimeographed questionnaire which assess subjective responses to the BSS and is worded thus:

Please answer the following questions truthfully. Place a check mark above the most accurate answer.

1. When it was suggested that your right arm was heavy and was moving down, the arm felt: not heavy; slightly heavy; heavy; very heavy.

2. When it was suggested that your left arm was light and was moving up, the arm felt: not light; slightly light; light; very light.

3. When it was suggested that your hands were stuck together and you wouldn't take them apart, the hands felt: not stuck; slightly stuck; stuck; very stuck.

4. When it was suggested that you felt thirsty, you felt: not thirsty; slightly thirsty; very thirsty.

5. When it was suggested that your throat was stuck and you couldn't speak, your throat felt: not stuck; slightly stuck; stuck; very stuck.

6. When it was suggested that you were stuck to the chair, you felt: not stuck; slightly stuck; stuck; very stuck.

7. When the experiment was over the experimenter clicked his fingers (presented the posthypnotic cue), you felt: not like coughing; slightly like coughing; like coughing; very much like coughing.

8. When the experiment was over and you were recalling the tests, you felt that you remembered the test about the arm rising (the test S was told to forget): with no difficulty; with slight difficulty; with difficulty; with great difficulty (or did not remember at all).

Each of the above eight items receives a score of 0 to 3; 0 for the first answer ("not"), 1 for the second ("slightly"), and so on. The total Subjective scores on the eight items thus range from 0 to 24.

# APPENDIX D

Minnesota Multiphasic Personality Inventory

S.R. Hathaway & J.C. McKinley
The Psychological Corporation, N.Y., 1943.

DO NOT MAKE ANY MARKS ON THIS BOOKLET

1. I like mechanics magazines.
2. I have a good appetite.
3. I wake up fresh and rested most mornings.
4. I think I would like the work of a librarian.
5. I am easily awakened by noise.
6. I like to read newspaper articles on crime.
7. My hands and feet are usually warm enough.
8. My daily life is full of things that keep me interested.
9. I am about as able to work as I ever was.
10. There seems to be a lump in my throat much of the time.
11. A person should try to understand his dreams and be guided by or take warning from them.
12. I enjoy detective or mystery stories.
13. I work under a great deal of tension.
14. I have diarrhea once a month or more.
15. Once in a while I think of things too bad to talk about.
16. I am sure I get a raw deal from life.
17. My father was a good man.
18. I am very seldom troubled by constipation.
19. When I take a new job, I like to be tipped off on who should be gotten next to.
20. My sex life is satisfactory.
21. At times I have very much wanted to leave home.
22. At times I have fits of laughing and crying that I cannot control.
23. I am troubled by attacks of nausea and vomiting.
24. No one seems to understand me.
25. I would like to be a singer.
26. I feel that it is certainly best to keep my mouth shut when I'm in trouble.
27. Evil spirits possess me at times.
28. When someone does me a wrong I feel I should pay him back if I can, just for the principle of the thing.
29. I am bothered by acid stomach several times a week.
30. At times I feel like swearing.
31. I have nightmares every few nights.
32. I find it hard to keep my mind on a task or job.
33. I have had very peculiar and strange experiences.
34. I have a cough most of the time.
35. If people had not had it in for me I would have been much more successful.
36. I seldom worry about my health.
37. I have never been in trouble because of my sex behavior.
38. During one period when I was a youngster I engaged in petty thievery.
39. At times I feel like smashing things.
40. Most any time I would rather sit and daydream than to do anything else.
41. I have had periods of days, weeks, or months when I couldn't take care of things because I couldn't "get going."
42. My family does not like the work I have chosen (or the work I intend to choose for my life work).
43. My sleep is fitful and disturbed.
44. Much of the time my head seems to hurt all over.
45. I do not always tell the truth.

GO ON TO THE NEXT PAGE

46. My judgment is better than it ever was.

47. Once a week or oftener I feel suddenly hot all over, without apparent cause.

48. When I am with people I am bothered by hearing very queer things.

49. It would be better if almost all laws were thrown away.

50. My soul sometimes leaves my body.

51. I am in just as good physical health as most of my friends.

52. I prefer to pass by school friends, or people I know but have not seen for a long time, unless they speak to me first.

53. A minister can cure disease by praying and putting his hand on your head.

54. I am liked by most people who know me.

55. I am almost never bothered by pains over the heart or in my chest.

56. As a youngster I was suspended from school one or more times for cutting up.

57. I am a good mixer.

58. Everything is turning out just like the prophets of the Bible said it would.

59. I have often had to take orders from someone who did not know as much as I did.

60. I do not read every editorial in the newspaper every day.

61. I have not lived the right kind of life.

62. Parts of my body often have feelings like burning, tingling, crawling, or like "going to sleep."

63. I have had no difficulty in starting or holding my bowel movement.

64. I sometimes keep on at a thing until others lose their patience with me.

65. I loved my father.

66. I see things or animals or people around me that others do not see.

67. I wish I could be as happy as others seem to be.

68. I hardly ever feel pain in the back of the neck.

69. I am very strongly attracted by members of my own sex.

70. I used to like drop-the-handkerchief.

71. I think a great many people exaggerate their misfortunes in order to gain the sympathy and help of others.

72. I am troubled by discomfort in the pit of my stomach every few days or oftener.

73. I am an important person.

74. I have often wished I were a girl. (Or if you are a girl) I have never been sorry that I am a girl.

75. I get angry sometimes.

76. Most of the time I feel blue.

77. I enjoy reading love stories.

78. I like poetry.

79. My feelings are not easily hurt.

80. I sometimes tease animals.

81. I think I would like the kind of work a forest ranger does.

82. I am easily downed in an argument.

83. Any man who is able and willing to work hard has a good chance of succeeding.

84. These days I find it hard not to give up hope of amounting to something.

85. Sometimes I am strongly attracted by the personal articles of others such as shoes, gloves, etc., so that I want to handle or steal them though I have no use for them.

86. I am certainly lacking in self-confidence.

87. I would like to be a florist.

88. I usually feel that life is worth while.

89. It takes a lot of argument to convince most people of the truth.

GO ON TO THE NEXT PAGE

90. Once in a while I put off until tomorrow what I ought to do today.

91. I do not mind being made fun of.

92. I would like to be a nurse.

93. I think most people would lie to get ahead.

94. I do many things which I regret afterwards (I regret things more or more often than others seem to).

95. I go to church almost every week.

96. I have very few quarrels with members of my family.

97. At times I have a strong urge to do something harmful or shocking.

98. I believe in the second coming of Christ.

99. I like to go to parties and other affairs where there is lots of loud fun.

100. I have met problems so full of possibilities that I have been unable to make up my mind about them.

101. I believe women ought to have as much sexual freedom as men.

102. My hardest battles are with myself.

103. I have little or no trouble with my muscles twitching or jumping.

104. I don't seem to care what happens to me.

105. Sometimes when I am not feeling well I am cross.

106. Much of the time I feel as if I have done something wrong or evil.

107. I am happy most of the time.

108. There seems to be a fullness in my head or nose most of the time.

109. Some people are so bossy that I feel like doing the opposite of what they request, even though I know they are right.

110. Someone has it in for me.

111. I have never done anything dangerous for the thrill of it.

112. I frequently find it necessary to stand up for what I think is right.

113. I believe in law enforcement.

114. Often I feel as if there were a tight band about my head.

115. I believe in a life hereafter.

116. I enjoy a race or game better when I bet on it.

117. Most people are honest chiefly through fear of being caught.

118. In school I was sometimes sent to the principal for cutting up.

119. My speech is the same as always (not faster or slower, or slurring; no hoarseness).

120. My table manners are not quite as good at home as when I am out in company.

121. I believe I am being plotted against.

122. I seem to be about as capable and smart as most others around me.

123. I believe I am being followed.

124. Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it.

125. I have a great deal of stomach trouble.

126. I like dramatics.

127. I know who is responsible for most of my troubles.

128. The sight of blood neither frightens me nor makes me sick.

129. Often I can't understand why I have been so cross and grouchy.

130. I have never vomited blood or coughed up blood.

131. I do not worry about catching diseases.

GO ON TO THE NEXT PAGE

132. I like collecting flowers or growing house plants.

133. I have never indulged in any unusual sex practices.

134. At times my thoughts have raced ahead faster than I could speak them.

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

136. I commonly wonder what hidden reason another person may have for doing something nice for me.

137. I believe that my home life is as pleasant as that of most people I know.

138. Criticism or scolding hurts me terribly.

139. Sometimes I feel as if I must injure either myself or someone else.

140. I like to cook.

141. My conduct is largely controlled by the customs of those about me.

142. I certainly feel useless at times.

143. When I was a child, I belonged to a crowd or gang that tried to stick together through thick and thin.

144. I would like to be a soldier.

145. At times I feel like picking a fist fight with someone.

146. I have the wanderlust and am never happy unless I am roaming or traveling about.

147. I have often lost out on things because I couldn't make up my mind soon enough.

148. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important.

149. I used to keep a diary.

150. I would rather win than lose in a game.

151. Someone has been trying to poison me.

152. Most nights I go to sleep without thoughts or ideas bothering me.

153. During the past few years I have been well most of the time.

154. I have never had a fit or convulsion.

155. I am neither gaining nor losing weight.

156. I have had periods in which I carried on activities without knowing later what I had been doing.

157. I feel that I have often been punished without cause.

158. I cry easily.

159. I cannot understand what I read as well as I used to.

160. I have never felt better in my life than I do now.

161. The top of my head sometimes feels tender.

162. I resent having anyone take me in so cleverly that I have had to admit that it was one on me.

163. I do not tire quickly.

164. I like to study and read about things that I am working at.

165. I like to know some important people because it makes me feel important.

166. I am afraid when I look down from a high place.

167. It wouldn't make me nervous if any members of my family got into trouble with the law.

168. There is something wrong with my mind.

169. I am not afraid to handle money.

170. What others think of me does not bother me.

171. It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of things.

172. I frequently have to fight against showing that I am bashful.

173. I liked school.

GO ON TO THE NEXT PAGE

174. I have never had a fainting spell.

175. I seldom or never have dizzy spells.

176. I do not have a great fear of snakes.

177. My mother was a good woman.

178. My memory seems to be all right.

179. I am worried about sex matters.

180. I find it hard to make talk when I meet new people.

181. When I get bored I like to stir up some excitement.

182. I am afraid of losing my mind.

183. I am against giving money to beggars.

184. I commonly hear voices without knowing where they come from.

185. My hearing is apparently as good as that of most people.

186. I frequently notice my hand shakes when I try to do something.

187. My hands have not become clumsy or awkward.

188. I can read a long while without tiring my eyes.

189. I feel weak all over much of the time.

190. I have very few headaches.

191. Sometimes, when embarrassed, I break out in a sweat which annoys me greatly.

192. I have had no difficulty in keeping my balance in walking.

193. I do not have spells of hay fever or asthma.

194. I have had attacks in which I could not control my movements or speech but in which I knew what was going on around me.

195. I do not like everyone I know.

196. I like to visit places where I have never been before.

197. Someone has been trying to rob me.

198. I daydream very little.

199. Children should be taught all the main facts of sex.

200. There are persons who are trying to steal my thoughts and ideas.

201. I wish I were not so shy.

202. I believe I am a condemned person.

203. If I were a reporter I would very much like to report news of the theater.

204. I would like to be a journalist.

205. At times it has been impossible for me to keep from stealing or shoplifting something.

206. I am very religious (more than most people).

207. I enjoy many different kinds of play and recreation.

208. I like to flirt.

209. I believe my sins are unpardonable.

210. Everything tastes the same.

211. I can sleep during the day but not at night.

212. My people treat me more like a child than a grown-up.

213. In walking I am very careful to step over sidewalk cracks.

214. I have never had any breaking out on my skin that has worried me.

215. I have used alcohol excessively.

216. There is very little love and companionship in my family as compared to other homes.

217. I frequently find myself worrying about something.

218. It does not bother me particularly to see animals suffer.

219. I think I would like the work of a building contractor.

GO ON TO THE NEXT PAGE

220. I loved my mother.

221. I like science.

222. It is not hard for me to ask help from my friends even though I cannot return the favor.

223. I very much like hunting.

224. My parents have often objected to the kind of people I went around with.

225. I gossip a little at times.

226. Some of my family have habits that bother and annoy me very much.

227. I have been told that I walk during sleep.

228. At times I feel that I can make up my mind with unusually great ease.

229. I should like to belong to several clubs or lodges.

230. I hardly ever notice my heart pounding and I am seldom short of breath.

231. I like to talk about sex.

232. I have been inspired to a program of life based on duty which I have since carefully followed.

233. I have at times stood in the way of people who were trying to do something, not because it amounted to much but because of the principle of the thing.

234. I get mad easily and then get over it soon.

235. I have been quite independent and free from family rule.

236. I brood a great deal.

237. My relatives are nearly all in sympathy with me.

238. I have periods of such great restlessness that I cannot sit long in a chair.

239. I have been disappointed in love.

240. I never worry about my looks.

241. I dream frequently about things that are best kept to myself.

242. I believe I am no more nervous than most others.

243. I have few or no pains.

244. My way of doing things is apt to be misunderstood by others.

245. My parents and family find more fault with me than they should.

246. My neck spots with red often.

247. I have reason for feeling jealous of one or more members of my family.

248. Sometimes without any reason or even when things are going wrong I feel excitedly happy, "on top of the world."

249. I believe there is a Devil and a Hell in afterlife.

250. I don't blame anyone for trying to grab everything he can get in this world.

251. I have had blank spells in which my activities were interrupted and I did not know what was going on around me.

252. No one cares much what happens to you.

253. I can be friendly with people who do things which I consider wrong.

254. I like to be with a crowd who play jokes on one another.

255. Sometimes at elections I vote for men about whom I know very little.

256. The only interesting part of newspapers is the "funnies."

257. I usually expect to succeed in things I do.

258. I believe there is a God.

259. I have difficulty in starting to do things.

260. I was a slow learner in school.

261. If I were an artist I would like to draw flowers.

262. It does not bother me that I am not better looking.

263. I sweat very easily even on cool days.

GO ON TO THE NEXT PAGE

264. I am entirely self-confident.

265. It is safer to trust nobody.

266. Once a week or oftener I become very excited.

267. When in a group of people I have trouble thinking of the right things to talk about.

268. Something exciting will almost always pull me out of it when I am feeling low.

269. I can easily make other people afraid of me, and sometimes do for the fun of it.

270. When I leave home I do not worry about whether the door is locked and the windows closed.

271. I do not blame a person for taking advantage of someone who lays himself open to it.

272. At times I am all full of energy.

273. I have numbness in one or more regions of my skin.

274. My eyesight is as good as it has been for years.

275. Someone has control over my mind.

276. I enjoy children.

277. At times I have been so entertained by the cleverness of a crook that I have hoped he would get by with it.

278. I have often felt that strangers were looking at me critically.

279. I drink an unusually large amount of water every day.

280. Most people make friends because friends are likely to be useful to them.

281. I do not often notice my ears ringing or buzzing.

282. Once in a while I feel hate toward members of my family whom I usually love.

283. If I were a reporter I would very much like to report sporting news.

284. I am sure I am being talked about.

285. Once in a while I laugh at a dirty joke.

286. I am never happier than when alone.

287. I have very few fears compared to my friends.

288. I am troubled by attacks of nausea and vomiting.

289. I am always disgusted with the law when a criminal is freed through the arguments of a smart lawyer.

290. I work under a great deal of tension.

291. At one or more times in my life I felt that someone was making me do things by hypnotizing me.

292. I am likely not to speak to people until they speak to me.

293. Someone has been trying to influence my mind.

294. I have never been in trouble with the law.

295. I liked "Alice in Wonderland" by Lewis Carroll.

296. I have periods in which I feel unusually cheerful without any special reason.

297. I wish I were not bothered by thoughts about sex.

298. If several people find themselves in trouble, the best thing for them to do is to agree upon a story and stick to it.

299. I think that I feel more intensely than most people do.

300. There never was a time in my life when I liked to play with dolls.

301. Life is a strain for me much of the time.

302. I have never been in trouble because of my sex behavior.

303. I am so touchy on some subjects that I can't talk about them.

304. In school I found it very hard to talk before the class.

305. Even when I am with people I feel lonely much of the time.

306. I get all the sympathy I should.

GO ON TO THE NEXT PAGE

307. I refuse to play some games because I am not good at them.

308. At times I have very much wanted to leave home.

309. I seem to make friends about as quickly as others do.

310. My sex life is satisfactory.

311. During one period when I was a youngster I engaged in petty thievery.

312. I dislike having people about me.

313. The man who provides temptation by leaving valuable property unprotected is about as much to blame for its theft as the one who steals it.

314. Once in a while I think of things too bad to talk about.

315. I am sure I get a raw deal from life.

316. I think nearly anyone would tell a lie to keep out of trouble.

317. I am more sensitive than most other people.

318. My daily life is full of things that keep me interested.

319. Most people inwardly dislike putting themselves out to help other people.

320. Many of my dreams are about sex matters.

321. I am easily embarrassed.

322. I worry over money and business.

323. I have had very peculiar and strange experiences.

324. I have never been in love with anyone.

325. The things that some of my family have done have frightened me.

326. At times I have fits of laughing and crying that I cannot control.

327. My mother or father often made me obey even when I thought that it was unreasonable.

328. I find it hard to keep my mind on a task or job.

329. I almost never dream.

330. I have never been paralyzed or had any unusual weakness of any of my muscles.

331. If people had not had it in for me I would have been much more successful.

332. Sometimes my voice leaves me or changes even though I have no cold.

333. No one seems to understand me.

334. Peculiar odors come to me at times.

335. I cannot keep my mind on one thing.

336. I easily become impatient with people.

337. I feel anxiety about something or someone almost all the time.

338. I have certainly had more than my share of things to worry about.

339. Most of the time I wish I were dead.

340. Sometimes I become so excited that I find it hard to get to sleep.

341. At times I hear so well it bothers me.

342. I forget right away what people say to me.

343. I usually have to stop and think before I act even in trifling matters.

344. Often I cross the street in order not to meet someone I see.

345. I often feel as if things were not real.

346. I have a habit of counting things that are not important such as bulbs on electric signs, and so forth.

347. I have no enemies who really wish to harm me.

348. I tend to be on my guard with people who are somewhat more friendly than I had expected.

349. I have strange and peculiar thoughts.

350. I hear strange things when I am alone.

351. I get anxious and upset when I have to make a short trip away from home.

GO ON TO THE NEXT PAGE

352. I have been afraid of things or people that I knew could not hurt me.

353. I have no dread of going into a room by myself where other people have already gathered and are talking.

354. I am afraid of using a knife or anything very sharp or pointed.

355. Sometimes I enjoy hurting persons I love.

356. I have more trouble concentrating than others seem to have.

357. I have several times given up doing a thing because I thought too little of my ability.

358. Bad words, often terrible words, come into my mind and I cannot get rid of them.

359. Sometimes some unimportant thought will run through my mind and bother me for days.

360. Almost every day something happens to frighten me.

361. I am inclined to take things hard.

362. I am more sensitive than most other people.

363. At times I have enjoyed being hurt by someone I loved.

364. People say insulting and vulgar things about me.

365. I feel uneasy indoors.

366. Even when I am with people I feel lonely much of the time.

367. I am not afraid of fire.

368. I have sometimes stayed away from another person because I feared doing or saying something that I might regret afterwards.

369. Religion gives me no worry.

370. I hate to have to rush when working.

371. I am not unusually self-conscious.

372. I tend to be interested in several different hobbies rather than to stick to one of them for a long time.

373. I feel sure that there is only one true religion.

374. At periods my mind seems to work more slowly than usual.

375. When I am feeling very happy and active, someone who is blue or low will spoil it all.

376. Policemen are usually honest.

377. At parties I am more likely to sit by myself or with just one other person than to join in with the crowd.

378. I do not like to see women smoke.

379. I very seldom have spells of the blues.

380. When someone says silly or ignorant things about something I know about, I try to set him right.

381. I am often said to be hotheaded.

382. I wish I could get over worrying about things I have said that may have injured other people's feelings.

383. People often disappoint me.

384. I feel unable to tell anyone all about myself.

385. Lightning is one of my fears.

386. I like to keep people guessing what I'm going to do next.

387. The only miracles I know of are simply tricks that people play on one another.

388. I am afraid to be alone in the dark.

389. My plans have frequently seemed so full of difficulties that I have had to give them up.

390. I have often felt badly over being misunderstood when trying to keep someone from making a mistake.

391. I love to go to dances.

392. A windstorm terrifies me.

393. Horses that don't pull should be beaten or kicked.

394. I frequently ask people for advice.

GO ON TO THE NEXT PAGE

395. The future is too uncertain for a person to make serious plans.

396. Often, even though everything is going fine for me, I feel that I don't care about anything.

397. I have sometimes felt that difficulties were piling up so high that I could not overcome them.

398. I often think, "I wish I were a child again."

399. I am not easily angered.

400. If given the chance I could do some things that would be of great benefit to the world.

401. I have no fear of water.

402. I often must sleep over a matter before I decide what to do.

403. It is great to be living in these times when so much is going on.

404. People have often misunderstood my intentions when I was trying to put them right and be helpful.

405. I have no trouble swallowing.

406. I have often met people who were supposed to be experts who were no better than I.

407. I am usually calm and not easily upset.

408. I am apt to hide my feelings in some things, to the point that people may hurt me without their knowing about it.

409. At times I have worn myself out by undertaking too much.

410. I would certainly enjoy beating a crook at his own game.

411. It makes me feel like a failure when I hear of the success of someone I know well.

412. I do not dread seeing a doctor about a sickness or injury.

413. I deserve severe punishment for my sins.

414. I am apt to take disappointments so keenly that I can't put them out of my mind.

415. If given the chance I would make a good leader of people.

416. It bothers me to have someone watch me at work even though I know I can do it well.

417. I am often so annoyed when someone tries to get ahead of me in a line of people that I speak to him about it.

418. At times I think I am no good at all.

419. I played hooky from school quite often as a youngster.

420. I have had some very unusual religious experiences.

421. One or more members of my family is very nervous.

422. I have felt embarrassed over the type of work that one or more members of my family have done.

423. I like or have liked fishing very much.

424. I feel hungry almost all the time.

425. I dream frequently.

426. I have at times had to be rough with people who were rude or annoying.

427. I am embarrassed by dirty stories.

428. I like to read newspaper editorials.

429. I like to attend lectures on serious subjects.

430. I am attracted by members of the opposite sex.

431. I worry quite a bit over possible misfortunes.

432. I have strong political opinions.

433. I used to have imaginary companions.

434. I would like to be an auto racer.

435. Usually I would prefer to work with women.

436. People generally demand more respect for their own rights than they are willing to allow for others.

GO ON TO THE NEXT PAGE

437. It is all right to get around the law if you don't actually break it.

438. There are certain people whom I dislike so much that I am inwardly pleased when they are catching it for something they have done.

439. It makes me nervous to have to wait.

440. I try to remember good stories to pass them on to other people.

441. I like tall women.

442. I have had periods in which I lost sleep over worry.

443. I am apt to pass up something I want to do because others feel that I am not going about it in the right way.

444. I do not try to correct people who express an ignorant belief.

445. I was fond of excitement when I was young (or in childhood).

446. I enjoy gambling for small stakes.

447. I am often inclined to go out of my way to win a point with someone who has opposed me.

448. I am bothered by people outside, on streetcars, in stores, etc., watching me.

449. I enjoy social gatherings just to be with people.

450. I enjoy the excitement of a crowd.

451. My worries seem to disappear when I get into a crowd of lively friends.

452. I like to poke fun at people.

453. When I was a child I didn't care to be a member of a crowd or gang.

454. I could be happy living all alone in a cabin in the woods or mountains.

455. I am quite often not in on the gossip and talk of the group I belong to.

456. A person shouldn't be punished for breaking a law that he thinks is unreasonable.

457. I believe that a person should never taste an alcoholic drink.

458. The man who had most to do with me when I was a child (such as my father, stepfather, etc.) was very strict with me.

459. I have one or more bad habits which are so strong that it is no use in fighting against them.

460. I have used alcohol moderately (or not at all).

461. I find it hard to set aside a task that I have undertaken, even for a short time.

462. I have had no difficulty starting or holding my urine.

463. I used to like hopscotch.

464. I have never seen a vision.

465. I have several times had a change of heart about my life work.

466. Except by a doctor's orders I never take drugs or sleeping powders.

467. I often memorize numbers that are not important (such as automobile licenses, etc.).

468. I am often sorry because I am so cross and grouchy.

469. I have often found people jealous of my good ideas, just because they had not thought of them first.

470. Sexual things disgust me.

471. In school my marks in deportment were quite regularly bad.

472. I am fascinated by fire.

473. Whenever possible I avoid being in a crowd.

474. I have to urinate no more often than others.

475. When I am cornered I tell that portion of the truth which is not likely to hurt me.

476. I am a special agent of God.

477. If I were in trouble with several friends who were equally to blame, I would rather take the whole blame than to give them away.

GO ON TO THE NEXT PAGE

478. I have never been made especially nervous over trouble that any members of my family have gotten into.

479. I do not mind meeting strangers.

480. I am often afraid of the dark.

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

482. While in trains, busses, etc., I often talk to strangers.

483. Christ performed miracles such as changing water into wine.

484. I have one or more faults which are so big that it seems better to accept them and try to control them rather than to try to get rid of them.

485. When a man is with a woman he is usually thinking about things related to her sex.

486. I have never noticed any blood in my urine.

487. I feel like giving up quickly when things go wrong.

488. I pray several times every week.

489. I feel sympathetic towards people who tend to hang on to their griefs and troubles.

490. I read in the Bible several times a week.

491. I have no patience with people who believe there is only one true religion.

492. I dread the thought of an earthquake.

493. I prefer work which requires close attention, to work which allows me to be careless.

494. I am afraid of finding myself in a closet or small closed place.

495. I usually "lay my cards on the table" with people that I am trying to correct or improve.

496. I have never seen things doubled (that is, an object never looks like two objects to me without my being able to make it look like one object).

497. I enjoy stories of adventure.

498. It is always a good thing to be frank.

499. I must admit that I have at times been worried beyond reason over something that really did not matter.

500. I readily become one hundred per cent sold on a good idea.

501. I usually work things out for myself rather than get someone to show me how.

502. I like to let people know where I stand on things.

503. It is unusual for me to express strong approval or disapproval of the actions of others.

504. I do not try to cover up my poor opinion or pity of a person so that he won't know how I feel.

505. I have had periods when I felt so full of pep that sleep did not seem necessary for days at a time.

506. I am a high-strung person.

507. I have frequently worked under people who seem to have things arranged so that they get credit for good work but are able to pass off mistakes onto those under them.

508. I believe my sense of smell is as good as other people's.

509. I sometimes find it hard to stick up for my rights because I am so reserved.

510. Dirt frightens or disgusts me.

511. I have a daydream life about which I do not tell other people.

512. I dislike to take a bath.

513. I think Lincoln was greater than Washington.

514. I like mannish women.

515. In my home we have always had the ordinary necessities (such as enough food, clothing, etc.).

516. Some of my family have quick tempers.

GO ON TO THE NEXT PAGE

517. I cannot do anything well.

518. I have often felt guilty because I have pretended to feel more sorry about something than I really was.

519. There is something wrong with my sex organs.

520. I strongly defend my own opinions as a rule.

521. In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well.

522. I have no fear of spiders.

523. I practically never blush.

524. I am not afraid of picking up a disease or germs from door knobs.

525. I am made nervous by certain animals.

526. The future seems hopeless to me.

527. The members of my family and my close relatives get along quite well.

528. I blush no more often than others.

529. I would like to wear expensive clothes.

530. I am often afraid that I am going to blush.

531. People can pretty easily change me even though I thought that my mind was already made up on a subject.

532. I can stand as much pain as others can.

533. I am not bothered by a great deal of belching of gas from my stomach.

534. Several times I have been the last to give up trying to do a thing.

535. My mouth feels dry almost all the time.

536. It makes me angry to have people hurry me.

537. I would like to hunt lions in Africa.

538. I think I would like the work of a dressmaker.

539. I am not afraid of mice.

540. My face has never been paralyzed.

541. My skin seems to be unusually sensitive to touch.

542. I have never had any black, tarry-looking bowel movements.

543. Several times a week I feel as if something dreadful is about to happen.

544. I feel tired a good deal of the time.

545. Sometimes I have the same dream over and over.

546. I like to read about history.

547. I like parties and socials.

548. I never attend a sexy show if I can avoid it.

549. I shrink from facing a crisis or difficulty.

550. I like repairing a door latch.

551. Sometimes I am sure that other people can tell what I am thinking.

552. I like to read about science.

553. I am afraid of being alone in a wide-open place.

554. If I were an artist I would like to draw children.

555. I sometimes feel that I am about to go to pieces.

GO ON TO THE NEXT PAGE

556. I am very careful about my manner of dress.

557. I would like to be a private secretary.

558. A large number of people are guilty of bad sexual conduct.

559. I have often been frightened in the middle of the night.

560. I am greatly bothered by forgetting where I put things.

561. I very much like horseback riding.

562. The one to whom I was most attached and whom I most admired as a child was a woman. (Mother, sister, aunt, or other woman.)

563. I like adventure stories better than romantic stories.

564. I am apt to pass up something I want to do when others feel that it isn't worth doing.

565. I feel like jumping off when I am on a high place.

566. I like movie love scenes.

# APPENDIX E

## Tennessee Self-Concept Scale

W.H. Fitts
Western Psychological Services, Calif., 1964.

| Completely False | Mostly False | Partly False and Partly True | Mostly True | Completely True |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| | | Item No. |
|---|---|---|
| 1. | I have a healthy body | 1 |
| 3. | I am an attractive person | 3 |
| 5. | I consider myself a sloppy person | 5 |
| 19. | I am a decent sort of person | 19 |
| 21. | I am an honest person | 21 |
| 23. | I am a bad person | 23 |
| 37. | I am a cheerful person | 37 |
| 39. | I am a calm and easygoing person | 39 |
| 41. | I am a nobody | 41 |
| 55. | I have a family that would always help me in any kind of trouble | 55 |
| 57. | I am a member of a happy family | 57 |
| 59. | My friends have no confidence in me | 59 |
| 73. | I am a friendly person | 73 |
| 75. | I am popular with men | 75 |
| 77. | I am not interested in what other people do | 77 |
| 91. | I do not always tell the truth | 91 |
| 93. | I get angry sometimes | 93 |

| Completely False | Mostly False | Partly False and Partly True | Mostly True | Completely True |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| | | Item No. |
|---|---|---|
| 2. | I like to look nice and neat all the time | 2 |
| 4. | I am full of aches and pains | 4 |
| 6. | I am a sick person | 6 |
| 20. | I am a religious person | 20 |
| 22. | I am a moral failure | 22 |
| 24. | I am a morally weak person | 24 |
| 38. | I have a lot of self-control | 38 |
| 40. | I am a hateful person | 40 |
| 42. | I am losing my mind | 42 |
| 56. | I am an important person to my friends and family | 56 |
| 58. | I am not loved by my family | 58 |
| 60. | I feel that my family doesn't trust me | 60 |
| 74. | I am popular with women | 74 |
| 76. | I am mad at the whole world | 76 |
| 78. | I am hard to be friendly with | 78 |
| 92. | Once in a while I think of things too bad to talk about | 92 |
| 94. | Sometimes, when I am not feeling well, I am cross | 94 |

| Completely False | Mostly False | Partly False and Partly True | Mostly True | Completely True |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| | | Item No. |
|---|---|---|
| 7. | I am neither too fat nor too thin | 7 |
| 9. | I like my looks just the way they are | 9 |
| 11. | I would like to change some parts of my body | 11 |
| 25. | I am satisfied with my moral behavior | 25 |
| 27. | I am satisfied with my relationship to God | 27 |
| 29. | I ought to go to church more | 29 |
| 43. | I am satisfied to be just what I am | 43 |
| 45. | I am just as nice as I should be | 45 |
| 47. | I despise myself | 47 |
| 61. | I am satisfied with my family relationships | 61 |
| 63. | I understand my family as well as I should | 63 |
| 65. | I should trust my family more | 65 |
| 79. | I am as sociable as I want to be | 79 |
| 81. | I try to please others, but don't overdo it | 81 |
| 83. | I am no good at all from a social standpoint | 83 |
| 95. | I do not like everyone I know | 95 |
| 97. | Once in a while, I laugh at a dirty joke | 97 |

| Completely False | Mostly False | Partly False and Partly True | Mostly True | Completely True |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| | | Item No. |
|---|---|---|
| 8. | I am neither too tall nor too short | 8 |
| 10. | I don't feel as well as I should | 10 |
| 12. | I should have more sex appeal | 12 |
| 26. | I am as religious as I want to be | 26 |
| 28. | I wish I could be more trustworthy | 28 |
| 30. | I shouldn't tell so many lies | 30 |
| 44. | I am as smart as I want to be | 44 |
| 46. | I am not the person I would like to be | 46 |
| 48. | I wish I didn't give up as easily as I do | 48 |
| 62. | I treat my parents as well as I should (Use past tense if parents are not living) | 62 |
| 64. | I am too sensitive to things my family says | 64 |
| 66. | I should love my family more | 66 |
| 80. | I am satisfied with the way I treat other people | 80 |
| 82. | I should be more polite to others | 82 |
| 84. | I ought to get along better with other people | 84 |
| 96. | I gossip a little at times | 96 |
| 98. | At times I feel like swearing | 98 |

| Completely False | Mostly False | Partly False and Partly True | Mostly True | Completely True |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| | | Item No. |
|---|---|---|
| 13. | I take good care of myself physically | 13 |
| 15. | I try to be careful about my appearance | 15 |
| 17. | I often act like I am "all thumbs" | 17 |
| 31. | I am true to my religion in my everyday life | 31 |
| 33. | I try to change when I know I'm doing things that are wrong | 33 |
| 35. | I sometimes do very bad things | 35 |
| 49. | I can always take care of myself in any situation | 49 |
| 51. | I take the blame for things without getting mad | 51 |
| 53. | I do things without thinking about them first | 53 |
| 67. | I try to play fair with my friends and family | 67 |
| 69. | I take a real interest in my family | 69 |
| 71. | I give in to my parents (Use past tense if parents are not living) | 71 |
| 85. | I try to understand the other fellow's point of view | 85 |
| 87. | I get along well with other people | 87 |
| 89. | I do not forgive others easily | 89 |
| 99. | I would rather win than lose in a game | 99 |

| Completely False | Mostly False | Partly False and Partly True | Mostly True | Completely True |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| | | Item No. |
|---|---|---|
| 14. | I feel good most of the time | 14 |
| 16. | I do poorly in sports and games | 16 |
| 18. | I am a poor sleeper | 18 |
| 32. | I do what is right most of the time | 32 |
| 34. | I sometimes use unfair means to get ahead | 34 |
| 36. | I have trouble doing the things that are right | 36 |
| 50. | I solve my problems quite easily | 50 |
| 52. | I change my mind a lot | 52 |
| 54. | I try to run away from my problems | 54 |
| 68. | I do my share of work at home | 68 |
| 70. | I quarrel with my family | 70 |
| 72. | I do not act like my family thinks I should | 72 |
| 86. | I see good points in all the people I meet | 86 |
| 88. | I do not feel at ease with other people | 88 |
| 90. | I find it hard to talk with strangers | 90 |
| 100. | Once in a while I put off until tomorrow what I ought to do today | 100 |

# APPENDIX F

## Profile of Mood States

D.M. McNair, M. Lorr & L.F. Droppleman
Educational and Industrial Testing Service, Calif., 1971.

NCS Trans-Optic M08-7944B-12

# SAMPLE

NAME _____ DATE _____

SEX: M F

IDENTIFICATION

Below is a list of words that describe feelings people have. Please read each one carefully. Then fill in ONE circle under the answer to the right which best describes HOW YOU HAVE BEEN FEELING DURING THE PAST WEEK INCLUDING TODAY.

The numbers refer to these phrases.

0 = Not at all
1 = A little
2 = Moderately
3 = Quite a bit
4 = Extremely

Col C O.P.

| | NOT AT ALL | A LITTLE | MODERATELY | QUITE A BIT | EXTREMELY |
|---|---|---|---|---|---|
| 1. Friendly | 0 | 1 | 2 | 3 | 4 |
| 2. Tense | 0 | 1 | 2 | 3 | 4 |
| 3. Angry | 0 | 1 | 2 | 3 | 4 |
| 4. Worn out | 0 | 1 | 2 | 3 | 4 |
| 5. Unhappy | 0 | 1 | 2 | 3 | 4 |
| 6. Clear-headed | 0 | 1 | 2 | 3 | 4 |
| 7. Lively | 0 | 1 | 2 | 3 | 4 |
| 8. Confused | 0 | 1 | 2 | 3 | 4 |
| 9. Sorry for things done | 0 | 1 | 2 | 3 | 4 |
| 10. Shaky | 0 | 1 | 2 | 3 | 4 |
| 11. Listless | 0 | 1 | 2 | 3 | 4 |
| 12. Peeved | 0 | 1 | 2 | 3 | 4 |
| 13. Considerate | 0 | 1 | 2 | 3 | 4 |
| 14. Sad | 0 | 1 | 2 | 3 | 4 |
| 15. Active | 0 | 1 | 2 | 3 | 4 |
| 16. On edge | 0 | 1 | 2 | 3 | 4 |
| 17. Grouchy | 0 | 1 | 2 | 3 | 4 |
| 18. Blue | 0 | 1 | 2 | 3 | 4 |
| 19. Energetic | 0 | 1 | 2 | 3 | 4 |
| 20. Panicky | 0 | 1 | 2 | 3 | 4 |
| 21. Hopeless | 0 | 1 | 2 | 3 | 4 |
| 22. Relaxed | 0 | 1 | 2 | 3 | 4 |
| 23. Unworthy | 0 | 1 | 2 | 3 | 4 |
| 24. Spiteful | 0 | 1 | 2 | 3 | 4 |
| 25. Sympathetic | 0 | 1 | 2 | 3 | 4 |
| 26. Uneasy | 0 | 1 | 2 | 3 | 4 |
| 27. Restless | 0 | 1 | 2 | 3 | 4 |
| 28. Unable to concentrate | 0 | 1 | 2 | 3 | 4 |
| 29. Fatigued | 0 | 1 | 2 | 3 | 4 |
| 30. Helpful | 0 | 1 | 2 | 3 | 4 |
| 31. Annoyed | 0 | 1 | 2 | 3 | 4 |
| 32. Discouraged | 0 | 1 | 2 | 3 | 4 |
| 33. Resentful | 0 | 1 | 2 | 3 | 4 |
| 34. Nervous | 0 | 1 | 2 | 3 | 4 |
| 35. Lonely | 0 | 1 | 2 | 3 | 4 |
| 36. Miserable | 0 | 1 | 2 | 3 | 4 |
| 37. Muddled | 0 | 1 | 2 | 3 | 4 |
| 38. Cheerful | 0 | 1 | 2 | 3 | 4 |
| 39. Bitter | 0 | 1 | 2 | 3 | 4 |
| 40. Exhausted | 0 | 1 | 2 | 3 | 4 |
| 41. Anxious | 0 | 1 | 2 | 3 | 4 |
| 42. Ready to fight | 0 | 1 | 2 | 3 | 4 |
| 43. Good natured | 0 | 1 | 2 | 3 | 4 |
| 44. Gloomy | 0 | 1 | 2 | 3 | 4 |
| 45. Desperate | 0 | 1 | 2 | 3 | 4 |
| 46. Sluggish | 0 | 1 | 2 | 3 | 4 |
| 47. Rebellious | 0 | 1 | 2 | 3 | 4 |
| 48. Helpless | 0 | 1 | 2 | 3 | 4 |
| 49. Weary | 0 | 1 | 2 | 3 | 4 |
| 50. Bewildered | 0 | 1 | 2 | 3 | 4 |
| 51. Alert | 0 | 1 | 2 | 3 | 4 |
| 52. Deceived | 0 | 1 | 2 | 3 | 4 |
| 53. Furious | 0 | 1 | 2 | 3 | 4 |
| 54. Efficient | 0 | 1 | 2 | 3 | 4 |
| 55. Trusting | 0 | 1 | 2 | 3 | 4 |
| 56. Full of pep | 0 | 1 | 2 | 3 | 4 |
| 57. Bad-tempered | 0 | 1 | 2 | 3 | 4 |
| 58. Worthless | 0 | 1 | 2 | 3 | 4 |
| 59. Forgetful | 0 | 1 | 2 | 3 | 4 |
| 60. Carefree | 0 | 1 | 2 | 3 | 4 |
| 61. Terrified | 0 | 1 | 2 | 3 | 4 |
| 62. Guilty | 0 | 1 | 2 | 3 | 4 |
| 63. Vigorous | 0 | 1 | 2 | 3 | 4 |
| 64. Uncertain about things | 0 | 1 | 2 | 3 | 4 |
| 65. Bushed | 0 | 1 | 2 | 3 | 4 |

MAKE SURE YOU HAVE ANSWERED EVERY ITEM.

EdITS POM 021

# APPENDIX G

## Subjective Stress Inventory

Stress Experience

Dr. Du-Fay Der
Dept. of Counselling Psychology
U.B.C.

How much stress/anxiety do you experience as a result of the following:

| | | Low | | | | High |
|---|---|---|---|---|---|---|
| 1. | relationship with spouse | 1 | 2 | 3 | 4 | 5 |
| 2. | relationship with children | 1 | 2 | 3 | 4 | 5 |
| 3. | interaction with co-workers | 1 | 2 | 3 | 4 | 5 |
| 4. | interaction with friends | 1 | 2 | 3 | 4 | 5 |
| 5. | going out on public (shopping, etc) | 1 | 2 | 3 | 4 | 5 |
| 6. | going to the Doctor | 1 | 2 | 3 | 4 | 5 |
| 7. | going to the therapist | 1 | 2 | 3 | 4 | 5 |
| 8. | consuming/eating | 1 | 2 | 3 | 4 | 5 |
| 9. | before menstrual period | 1 | 2 | 3 | 4 | 5 |
| 10. | during menstrual period | 1 | 2 | 3 | 4 | 5 |
| 11. | during ovulation | 1 | 2 | 3 | 4 | 5 |
| 12. | going to sleep | 1 | 2 | 3 | 4 | 5 |
| 13. | amount of sleep | 1 | 2 | 3 | 4 | 5 |
| 14. | anticipating commencement of job | 1 | 2 | 3 | 4 | 5 |
| 15. | housework | 1 | 2 | 3 | 4 | 5 |
| 16. | change in weight (gain/lost) | 1 | 2 | 3 | 4 | 5 |
| 17. | taking medication | 1 | 2 | 3 | 4 | 5 |
| 18. | money matters | 1 | 2 | 3 | 4 | 5 |
| 19. | marriage | 1 | 2 | 3 | 4 | 5 |
| 20. | minor illness | 1 | 2 | 3 | 4 | 5 |
| 21. | change in eating habits | 1 | 2 | 3 | 4 | 5 |
| 22. | change in sleeping habit | 1 | 2 | 3 | 4 | 5 |
| 23. | social gatherings | 1 | 2 | 3 | 4 | 5 |

# APPENDIX H

## Physiological Symptoms Scale

Physiological Symptoms

Dr. Du-Fay Der
Dept. of Counselling Psychology
U.B.C.

To what extent have the following symptoms been present:

| | very little | | | | very much |
|---|---|---|---|---|---|
| 1. Dyspnea (difficulty breathing) | 1 | 2 | 3 | 4 | 5 |
| 2. Palpitations | 1 | 2 | 3 | 4 | 5 |
| 3. Vertigo | 1 | 2 | 3 | 4 | 5 |
| 4. Paresthesias (pins & needles) | 1 | 2 | 3 | 4 | 5 |
| 5. Sweating | 1 | 2 | 3 | 4 | 5 |
| 6. Faintness | 1 | 2 | 3 | 4 | 5 |
| 7. Trembling/Shaking | 1 | 2 | 3 | 4 | 5 |
| 8. Fear of Dying/Going Crazy | 1 | 2 | 3 | 4 | 5 |

# APPENDIX I

Minnesota Multiphasic Personality Inventory Profiles
Pre-therapy, post-therapy and follow-up

MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

Computer Generated Report
M.D. ANGUS & Associates Limited.

Pre-therapy
Name:
Age: 40
Sex: FEMALE
DATE:

Graph of K-Corrected T Scores (SCALES 1, 4, 7, 8 & 9 WERE K CORRECTED)

| Raw(+ K) | TK / Scale | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 41 ? | | | | XXXXX | | | | | | | | |
| 1 | 40 L | | | | XXXXXX | | | | | | | | |
| 14 | 76 F | | | | | XXXXXXXXXXXXX | | | | | | | |
| 13 | 51 K | | | | | XX | | | | | | | |
| 31 | 87 HS (1) | | | | | XXXXXXXXXXXXXXXXXX | | | | | | | |
| 42 | 94 D (2) | | | | | XXXXXXXXXXXXXXXXXXXXX | | | | | | | |
| 45 | 96 HY (3) | | | | | XXXXXXXXXXXXXXXXXXXXXX | | | | | | | |
| 31 | 79 PD (4) | | | | | XXXXXXXXXXXXXXX | | | | | | | |
| 39 | 45 MF (5) | | | | XXX | | | | | | | | |
| 17 | 76 PA (6) | | | | | XXXXXXXXXXXXX | | | | | | | |
| 47 | 86 PT (7) | | | | | XXXXXXXXXXXXXXXXX | | | | | | | |
| 53 | 97 SC (8) | | | | | XXXXXXXXXXXXXXXXXXXXX | | | | | | | |
| 23 | 65 MA (9) | | | | | XXXXXXXXX | | | | | | | |
| 35 | 62 SI (0) | | | | | XXXXXXX | | | | | | | |

WELSH CODE: 832*17"46'90-/5:#F'-K/?L:#

Graph of Non K-Corrected T Scores (** DENOTES SCALE USUALLY K CORRECTED)

| | Raw Score | T / Scale | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 41 ? | | | | XXXXX | | | | | | | | |
| | 1 | 40 L | | | | XXXXXX | | | | | | | | |
| | 14 | 76 F | | | | | XXXXXXXXXXXXX | | | | | | | |
| | 13 | 51 K | | | | | XX | | | | | | | |
| ** | 24 | 82 HS (1) | | | | | XXXXXXXXXXXXXXXX | | | | | | | |
| | 42 | 94 D (2) | | | | | XXXXXXXXXXXXXXXXXXXXX | | | | | | | |
| | 45 | 96 HY (3) | | | | | XXXXXXXXXXXXXXXXXXXXXX | | | | | | | |
| ** | 26 | 80 PD (4) | | | | | XXXXXXXXXXXXXXX | | | | | | | |
| | 39 | 45 MF (5) | | | | XXX | | | | | | | | |
| | 17 | 76 PA (6) | | | | | XXXXXXXXXXXXX | | | | | | | |
| ** | 34 | 77 PT (7) | | | | | XXXXXXXXXXXXXXXX | | | | | | | |
| ** | 40 | 87 SC (8) | | | | | XXXXXXXXXXXXXXXXXX | | | | | | | |
| ** | 20 | 63 MA (9) | | | | | XXXXXXXX | | | | | | | |
| | 35 | 62 SI (0) | | | | | XXXXXXX | | | | | | | |

The analysis and interpretation below is based on the K-CORRECTED profile given above. It may not apply if an elevated K score obtained.

Research scales which follow the interpretation may or may not be useful for assessing a particular client's profile. They should be used with extreme caution.

MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

Computer Generated Report
M.D. ANGUS & Associates Limited.

Post-therapy

Name:
Age:
Sex: FEMALE
DATE:

Graph of K-Corrected T Scores (SCALES 1,4,7,8 & 9 WERE K CORRECTED)

| Raw(+ K) | TK / Scale | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 41 ? | | | | XXXXX | | | | | | | | |
| 6 | 56 L | | | | | XXXX | | | | | | | |
| 5 | 55 F | | | | | XXXX | | | | | | | |
| 22 | 68 K | | | | | XXXXXXXXXX | | | | | | | |
| 13 | 50 HS (1) | | | | | X | | | | | | | |
| 19 | 49 D (2) | | | | | X | | | | | | | |
| 28 | 66 HY (3) | | | | | XXXXXXXXX | | | | | | | |
| 32 | 81 PD (4) | | | | | XXXXXXXXXX | XXXXXX | | | | | | |
| 39 | 45 MF (5) | | | | XXX | | | | | | | | |
| 10 | 56 PA (6) | | | | | XXXX | | | | | | | |
| 26 | 51 PT (7) | | | | | XX | | | | | | | |
| 28 | 58 SC (8) | | | | | XXXXX | | | | | | | |
| 20 | 58 MA (9) | | | | | XXXXX | | | | | | | |
| 19 | 44 SI (0) | | | | XXXX | | | | | | | | |

WELSH CODE: 4"'3-98671/250:#K-LF/?:#

Graph of Non K-Corrected T Scores (** DENOTES SCALE USUALLY K CORRECTED)

| | Raw Score | T / Scale | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 41 ? | | | | XXXXX | | | | | | | | |
| | 6 | 56 L | | | | | XXXX | | | | | | | |
| | 5 | 55 F | | | | | XXXX | | | | | | | |
| | 22 | 68 K | | | | | XXXXXXXXXX | | | | | | | |
| ** | 2 | 41 HS (1) | | | | XXXXX | | | | | | | | |
| | 19 | 49 D (2) | | | | | X | | | | | | | |
| | 28 | 66 HY (3) | | | | | XXXXXXXXX | | | | | | | |
| ** | 23 | 73 PD (4) | | | | | XXXXXXXXXX | XX | | | | | | |
| | 39 | 45 MF (5) | | | | XXX | | | | | | | | |
| | 10 | 56 PA (6) | | | | | XXXX | | | | | | | |
| ** | 4 | 38 PT (7) | | | XXXXXX | | | | | | | | | |
| ** | 6 | 44 SC (8) | | | | XXXX | | | | | | | | |
| ** | 16 | 54 MA (9) | | | | | XXX | | | | | | | |
| | 19 | 44 SI (0) | | | | XXXX | | | | | | | | |

The analysis and interpretation below is based on the K-CORRECTED profile given above. It may not apply if an elevated K score obtained.
Research scales which follow the interpretation may or may not be useful for assessing a particular client's profile. They should be used with extreme caution.

MINNESOTA MULTIPHASIC PERSONALITY INVENTORY

Computer Generated Report
M.D. ANGUS & Associates Limited.

Follow-up
Name:
Age: 40
Sex: FEMALE
DATE:

Graph of K-Corrected T Scores (SCALES 1,4,7,8 & 9 WERE K CORRECTED)

| Raw(+ K) | TK / Scale | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 41 ? | | | | | XXXXX | | | | | | | |
| 5 | 53 L | | | | | XXX | | | | | | | |
| 5 | 55 F | | | | | XXXX | | | | | | | |
| 19 | 62 K | | | | | XXXXXXX | | | | | | | |
| 14 | 52 HS (1) | | | | | XX | | | | | | | |
| 18 | 47 D (2) | | | | | XX | | | | | | | |
| 25 | 61 HY (3) | | | | | XXXXXXX | | | | | | | |
| 27 | 69 PD (4) | | | | | XXXXXXXXXX | | | | | | | |
| 41 | 41 MF (5) | | | | | XXXXX | | | | | | | |
| 13 | 65 PA (6) | | | | | XXXXXXXXX | | | | | | | |
| 25 | 50 PT (7) | | | | | X | | | | | | | |
| 25 | 54 SC (8) | | | | | XXX | | | | | | | |
| 17 | 50 MA (9) | | | | | X | | | | | | | |
| 22 | 47 SI (0) | | | | | XX | | | | | | | |

WELSH CODE: 463-8197/025:#K-FL/?:#

Graph of Non K-Corrected T Scores (** DENOTES SCALE USUALLY K CORRECTED)

| | Raw Score | T / Scale | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 41 ? | | | | | XXXXX | | | | | | | |
| | 5 | 53 L | | | | | XXX | | | | | | | |
| | 5 | 55 F | | | | | XXXX | | | | | | | |
| | 19 | 62 K | | | | | XXXXXXX | | | | | | | |
| ** | 4 | 45 HS (1) | | | | | XXX | | | | | | | |
| | 18 | 47 D (2) | | | | | XX | | | | | | | |
| | 25 | 61 HY (3) | | | | | XXXXXXX | | | | | | | |
| ** | 19 | 63 PD (4) | | | | | XXXXXXXX | | | | | | | |
| | 41 | 41 MF (5) | | | | | XXXXX | | | | | | | |
| | 13 | 65 PA (6) | | | | | XXXXXXXXX | | | | | | | |
| ** | 6 | 41 PT (7) | | | | | XXXXX | | | | | | | |
| ** | 6 | 44 SC (8) | | | | | XXXX | | | | | | | |
| ** | 13 | 48 MA (9) | | | | | XX | | | | | | | |
| | 22 | 47 SI (0) | | | | | XX | | | | | | | |

The analysis and interpretation below is based on the K-CORRECTED profile given above. It may not apply if an elevated K score obtained.
Research scales which follow the interpretation may or may not be useful for assessing a particular client's profile. They should be used with extreme caution.