EFFECTS OF RATIONAL BEHAVIOR TRAINING ON ATTITUDES OF REHABILITATION SUPPORT PERSONNEL

A DISSERTATION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

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BY

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To the Dean for Graduate Studies and Research:

I am submitting a dissertation written by Norman C. Hooge entitled "Effects of Rational Behavior Training on Attitudes of Rehabilitation Support Personnel". I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Health Education.

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ABSTRACT

COMPLETED RESEARCH IN HEALTH STUDIES

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HOOGE, N. C. Effects of rational behavior training on attitudes of rehabilitation support personnel. Ph.D in Health Education, 1991, 76 pp. (R. Tandy)

This study was designed to measure positive changes in attitudes and cognitive distortion, of support rehabilitation personnel of the Texas Rehabilitation Commission, after training in Rational Behavior Therapy (RBT). The study was conducted during the summer of 1990 with 22 female subjects ranging in age from 24 to 52 years. Educational level was 13 grades, with mean years of work with the Texas Rehabilitation Commission and in comparable work, the same, at 7.6 years. The Wilcoxon matched-pairs signed-ranks test, used for both instruments, showed high significance for two of the Bloom Sentence Completion Survey's (BSCS) seven individual tests used to measure positive attitudes. These were Psychological and Physical at the $p < 0.007$ level. The Dysfunctional Attitude Scale (DAS) scores indicated a significant decrease, at the $p < 0.001$ level, in cognitive distortion following RBT intervention. An additional finding was that the training helped most those individuals scoring highest in cognitive distortion. Of the upper half of the subjects, 91% improved after training. The Spearman rank correlation coefficient, measuring correlation between the two instruments (the DAS and the seven individual tests of the BSCS), determined that only one of the individual tests of the BSCS, Psychological, correlated with the DAS.

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CHAPTER I

INTRODUCTION

Rationale for the Study

In the past forty years, awareness of human emotionality and the striving for positive mental health have increased greatly in public attention and practice. This has been reflected through scientific and popular literature, interest in mental health courses and training both at academic and community levels, and through the increasing use of psychotherapists as well as new modalities of psychotherapy and self-help. This trend is in unison with new thinking regarding the individuality of humans; the equality of humankind with the unshackling of specific bias and prejudice; the emphasis on individual choices; and, in general, human growth and human rights (Beck, 1976; Coleman, 1976; Wilson & Kneisl, 1988).

The importance of positive mental and physical health increasingly is emphasized in the workplace and community through employee assistance and other programs that deal with an array of human problems. These include emotional conflict, alcoholism, drug abuse and addiction, smoking, financial difficulties, family turmoil and lack of physical wellbeing. These problems have resulted in lost productivity in the workplace which, in turn, has led to new ideas in management philosophy. These philosophies are directed toward alleviating or minimizing conditions that cause the problems that result not only in lost time and productivity from sick leave for physical and stress-related complaints but also in lower work energy, low morale, and job turnover (Danaher, 1980; Johns, 1976; Schaeffer, Michaelsen, Hall & Cowan,1989; Walsh, 1982).

Goodman and Maultsby (1974) stated:

> Rational Behavior Training or RBT, is a highly-directive method of teaching people how to increase their skill in reasoning so they will be better able to deal with problems and stresses of daily living. It is based on the fact that the ability to think logically enables people to keep their emotions under better control, to see problems more clearly and solve them more effectively. In effect, RBT is the application of the scientific attitude and method to the totality of daily living.
>
> RBT can be effective in enabling relatively normal people to improve their living skills as it can in enabling disturbed people to regain their emotional and mental health. The goal in RBT is the attainment of maximum emotional and mental health with the least possible expense in terms of time and money by utilizing to the maximum the natural ability everyone has to think rationally. (p. xv)

Albert Ellis, the developer of Rational Emotive Therapy (RET), stated that both RET and RBT stress the same concepts, home work assignments, in vivo desensitization, assertion training, behavior rehearsal, operant conditioning, and other forms of behavior therapy: a mode of cognitive-behavior therapy cited in Goodman and Maultsby (1974). An underlying concept of cognitive behavior therapy expressed by Beck (1976) is that "man has the key to understanding and solving his psychological disturbance within the scope of his own awareness" (p. 3).

In the acknowledgement of his new book, The Feeling Good Handbook: Using the New Mood Therapy In Everyday Life, Burns (1989) reported that he was not the sole creator of the book. Cognitive therapy is a team effort of clinicians and researchers

throughout the world who have contributed to the movement which has revolutionized understanding and treatment of depression anxiety and marital discord. He acknowledged the early pioneering work of Dr's. Albert Ellis and Aaron T. Beck.

The training delivered and tested for this research was based on cognitive behavioral therapeutic concepts and, primarily, the use of the Rational Behavior Training modality. The training modality utilized positive thinking and living skills through exercises in specific rational thinking, in dealing with people, physical self, family, psychological self, self-directedness, work and accomplishment. The goals of the training were to impart mental health skills which may maximize work effectiveness and enhance daily living and, for research purposes, to evaluate training effectiveness. The results of the study will add to the available information on Rational Behavior Therapy.

Statement of the Problem

The problem of the study was to:

1. Determine the results of a structured therapeutic teaching model, primarily based on RBT, on attitudes of research subjects regarding health/human issues. The subjects were rehabilitation support personnel selected on a voluntary and assigned basis. The RBT training was conducted in facilities of the Texas Rehabilitation Commission in San Antonio, Texas during the summer of 1990.

2. Determine the effects of this teaching modality on changes in cognitive distortion.

3. Determine the relationship between changes in attitudes concerning health/human issues and changes in cognitive distortion.

Purpose of the Study

The purpose of the study was to conduct a Rational Behavior Training program to ascertain if attitudes and cognitive distortion of subjects will change positively, and if there is a correlation between the scores on the selected instruments.

Definition of Terms

For the purpose of this study, the following terms were defined:

1. Cognitive Behavior Therapy. Therapy that embraces modalities that guide the process of changing emotions and behavior through examination of thoughts. The underlying concept is that thoughts/beliefs concerning events, not the events themselves, cause specific emotions and behaviors.

2. Cognitive Behavioral Therapeutic Concepts. Understandings recognized within the general area of cognitive behavioral therapy.

3. Rational Behavior Training (Therapy) . Cognitive behavioral psychotherapeutic modality, originated by Maultsby (Goodman & Maultsby, 1974; Maultsby & Hendricks, 1974).

4. Cognitive Distortion. Irrational/non-objective thinking.

5. Rational Emotive Therapy. Cognitive behavioral psychotherapeutic modality, originated by Ellis (1957a, 1957b, 1958, 1962).

6. Rehabilitation Support Personnel. Texas Rehabilitation Commission personnel who have secretarial and/or technical job responsibilities that support rehabilitation counselor and management job functions.

Hypotheses

The following research hypotheses were tested for significance:

1. There will be an increase in positive attitudes concerning health/human issues following RBT intervention.
2. There will be a decrease in cognitive distortion following RBT intervention.
3. An inverse relationship will be found between scores on the test instruments.

Limitations and Delimitations of the Study

The study was limited by the following:

1. The validity and reliability of the instruments used in the study.
2. The objectivity and honesty of the subjects in pre- and posttesting.
3. Experimenter, Hawthorne and Novelty Effects.
4. Subjects' availability by employer.

The study was delimited by the following:

1. The cognitive behavior teaching modality used in the study.
2. The length of time allowed for the training.
3. The size of the sample.
4. The site for the study.
5. The demography of the sample.

CHAPTER II

SURVEY OF THE RELATED LITERATURE

The review of literature was designed to investigate cognitive behavior therapy; the cognitive modality, Rational Behavior Therapy (RBT); and the use of RBT training sessions. The general field of cognitive therapy has copious literature; therefore, this review was limited to studies that provide an understanding of the origin and concepts of cognitive behavior therapy, contributions of Maultsby, selected studies using RBT, and a description of the instruments used in this research.

Origins of Cognitive Behavior Therapy

Origins of cognitive behavior therapy, as defined in and applied to this research, refer prominently to the early work of Ellis (1957a, 1957b, 1958, 1962, 1971) and Beck (1961, 1963, 1964a, 1967). These individuals laid the groundwork for this therapeutic movement. Coleman (1976) generally classified Ellis's Rational Emotive Therapy (RET) as a humanistic-existential modality in which the task of the psychotherapist is one of unmasking the client's self-defeating thoughts. The therapist assists the client in understanding that these thoughts cause and maintain emotional problems and helps the client change faulty assumptions and verbalizations. Ellis refered to RET as a form of behavior therapy and a particular mode of cognitive behavior therapy (cited in Goodman & Maultsby, 1974).

Wilson and Kneise (1988) reported that RET emphasizes human values as the important part of personality. Good mental health is possible only when our values are rational ones.

Ellis's 10 basic irrational ideas, restated by Eshelman and Mckay (1982), are as follows:

1. It is an absolute necessity for an adult to have love and approval from peers, family, and friends.

2. You must be unfailingly competent and almost perfect in all you undertake.

3. Certain people are evil, wicked, and villainous, and should be punished.

4. It is horrible when people and things are not the way you would like them to be.

5. External events cause most human misery--people simply react as events trigger their emotions.

6. You should feel fear or anxiety about anything that is unknown, uncertain, or potentially dangerous.

7. It is easier to avoid than to face life's difficulties and responsibilities.

8. You need something other or stronger or greater than yourself to rely on.

9. The past has a lot to do with determining the present.

10. Happiness can be achieved by inaction, passivity, and endless leisure.

(pp.106-107)

Beck (1976) reflected that the three leading schools in the study and treatment of the emotional disturbances--traditional neuropsychiatry, psychoanalysis, and behavior therapy -- maintain that the source of the patient's disturbance is beyond awareness. He offered a different approach based on the assumption that the individual's consciousness contains elements responsible for the emotional problems; also, the individual has a mental

command of rational techniques to counteract these emotional problems. He termed this "new" approach - Cognitive Therapy. Beck stated that, while the assumptions are relatively new to working with emotional disorders, the philosophical beginnings can be tracked for thousands of years. He referred to the stoics who regarded man's conceptions or misconceptions of events rather than events themselves as the key to emotional problems. Beck further stated that, in its broadest sense, cognitive therapy encompasses approaches that remedy psychological distress through correcting faulty beliefs and self-signals. The emphasis on cognition, however, should not neglect emotional reactions; rather, cognitive therapy works with an individual's emotions through cognitions. In correcting faulty beliefs the therapist deals with excessive, inappropriate emotional reactions.

The general field of cognitive therapy has been and is expanding continuously since the early work of Ellis and Beck. This is evidenced through specific publications, such as New Directions in Cognitive Therapy (Emery, Hollon, & Bedrosian, 1981), a compilation of the works of individual therapists who use cognitive therapy with different populations and problems.

The Contributions of Maultsby

In developing and expanding Rational Behavioral Therapy, Maultsby has authored and co-authored numerous books, booklets, tapes, and articles. This section will discuss Maultsby's ideas and the applications of his work in cognitive therapy.

The early writings of Maultsby evidence his philosophical directions toward a scientifically based theory. In his article Against Technical Eclecticism (1968a), an answer to Lazarus (1967), he contended that therapeutic competence probably is more directly related to techniques based on understandable, scientifically valid theory than on

any other single determinant. He further reported that "currently there are no generally accepted theories of human personality that have large bodies of supporting scientific data. This is an unfortunate fact. Hopefully, it will soon be scientifically remedied" (p. 928). In response to Lazarus's argument that psychotherapists who work as eclectic therapists inevitably must embrace divergent and contradictory notions, Maultsby (1968b) stated, "It is precisely because of, rather than in spite of, this fact that technical eclectism seems to be a questionable alternative to a firm commitment to science" (p. 131).

In Seven Reflections On Scientism Psychotherapy , Maultsby (1968b), also argued with the psychotherapists of the Raimy (1950) school of reasoning in their contention that psychotherapy is an unclear technique applied to unclear problems with unclear outcomes. He felt that these psychotherapists probably were not scientists, but to say psychotherapy can never be a science is inappropriate.

Major contributions which embrace Maultsby's cognitive behavior modality include his earlier books, You and Your Emotions (Maultsby & Hendricks, 1974), Emotional Well Being Through Rational Behavior Training (Goodman & Maultsby, 1974), Help Yourself to Happiness, Maultsby (1975), A Million Dollars For Your Hangover Maultsby (1978), and the later books Rational Behavior Therapy Maultsby (1984), and Coping Better Anytime, Anywhere Maultsby (1986). Central to Maultsby's theory are the concepts of self-talk, anatomy of an emotion, rational self-analysis (RSA), and rational emotive imagery (REI).

Self-talk consists of a person's thoughts and beliefs (rational or irrational) which influence feelings and behavior. The anatomy of an emotion is the makeup of an emotion which includes an individual's thoughts and beliefs about what is perceived and the resulting feelings/behavior. Rational self-counseling consists of rational self-analysis

(examining and evaluating emotions through written technique) and rational emotive imagery (reprogramming the brain with rational thinking leading to rational and desirable feelings and behavior). In rational self-analysis, an individual subjects his thoughts to Maultsby's five rules for rational thinking (see Appendix C). Maultsby (1986) stated that rational emotive imagery has three steps: (a) being sincere in thinking rational thoughts; (b) imagining the most logical mental pictures/impressions for those thoughts; and (c) imagining the most logical emotional feelings and behavior for those thoughts. RBT does not deny emotions but rather examines and evaluates them to gain insight into thinking that is based on invalid assumptions which cause emotional distress.

In discussing origins of RBT, Maultsby (1984) reported that, after completing medical school, he spent fifteen years at in-depth study of nine scientific approaches concerning understanding and assisting individuals to help themselves emotionally. He listed his approaches as: (a) practicing family medicine; (b) completing training in adult and child psychiatry; (c) studying neuropsychological theories; (d-f) studying classical conditioning theory, operant learning theories and learning theories; (g) investigating conditioning and learning research and writings; (h) psychosomatic research; (i) study of Albert Ellis's theory and techniques. He relates that in the eight years following his studies he combined his nine learning experiences into one ideal system of psychotherapy and counseling.

Maultsby (1984) further discussed the word "rational" as defined in RBT. He stated that most people use the word to describe their sincere beliefs and behaviors while they assume that "irrational" describes the contrary beliefs and behaviors of others. People with healthy, undrugged brains usually feel their beliefs are correct. They seldom knowingly keep beliefs they consider irrational. If people's pretherapy beliefs and

disbeliefs were correct and solved their emotional problems, there would be no need for psychotherapy. Therefore, rational means to be healthy as well as therapeutic, and that which is rational has to supersede personal beliefs and disbeliefs. In RBT, rational means optimal health; that is cognitive, emotive and physical behaviors that obey at least three of the five rules for optimal health (rational thinking).

In writing about religion and rationality, Goodman (Goodman & Maultsby, 1974) explored objections by some patients and students of RBT that rationality is in opposition to religious feeling and belief in God. He expressed the view that, when discussing religion, the individual speaks of a vast world of thoughts and action that markedly lacks in consistency. The ethical standards of religion are in contrast to worldly behavior of some of its leaders and followers, and religion is a term that covers a multitude of beliefs and behaviors. If the negative behaviors sometimes associated with religion (rigidity of dogma, intolerance of others views, focus on formality rather than content) are eliminated, then a precious distillate of some of man's greatest thoughts and aspirations can be gained. Goodman provided examples as, "a soft answer turneth away wrath," which is the answer of a rational person to hostility; and Jesus's advice, "judge not least ye be judged," which is similar to the rational recognition that individuals are fallible human beings. We also must recognize that not even the world's greatest religious leaders were infallible. Moses smashed the tablets of law and was chastised. Goodman felt that through this incident, the old testament is attempting to teach us that patience is not only a virtue but it also is practical. To behave otherwise is self-defeating. We need to accept others and ourselves, and we need to begin from there. Self-improvement is the result of the continuous process of education in self-mastery.

Maultsby developed 11 self-defeating beliefs which are similar in part to Ellis's 10 basic irrational ideas. The following self-defeating beliefs are central to RBT theory and are found in You and Your Emotions. (Maultsby & Hendricks, 1974):

1. I have to feel the way I feel. And that's it. That's just me. I have no choice in the matter.

2. I can't accept myself without the love and /or approval of those I want it from.

3. If I don't do everything exactly right, or if I'm not the first, that proves that I'm a worthless slob.

4. Other people or things outside of me make me feel the emotions I feel.

5. If I don't like a job or the people or institution that requires me to do the job, they have no right to be mad at me or punish me if I mess the job up or refuse to do it all together.

6. My way is the only "right," "correct," or "just" way to do things.

7. I should use all my abilities fully and achieve as much as I can. If I don't, I should feel guilty.

8. The way I act tells me what kind of person I am. (If I act foolishly then I'm a fool.)

9. I have to feel bad if the person I love leaves me or dies. My willingness to suffer proves how much I loved that person. If I don't feel bad, that proves that I never really loved that person in the first place.

10. I can't accept myself unless I'm married, have friends or am loved by really worthwhile people or unless I'm involved in a cause that's greater or more worthwhile than I am.

11. I just have to be upset if people (especially those close to me) don't behave the way they should. (pp. 81- 110)

Studies Using Rational Behavior Training

Stevens (1987) studied the effects of a Rational Behavior Training program among elderly subjects. Seven sessions (one hour, twice weekly) were held for the groups. Comparisons of pre- and posttests revealed support for only 1 of 11 hypotheses which favored the RBT program.

Johnson (1980) assessed the effectiveness of RBT in improving attitudes toward leadership. The one general hypothesis tested was that RBT used for leadership development would be significantly more effective than regular leadership training. In a three-day workshop, 4 groups of 10 individuals per group received common training in management theory while experimental groups received added instruction in RBT. The final results indicated a significant difference in the leadership beliefs of those who had the RBT.

Research comparing the impact of Human Relations Training and RBT on interpersonal relations (communication skills) of a community action agency staff was conducted by Thompson (1978). In the study, attempts were made to identify skills which would be most productive in this area. There were 44 subjects randomly assigned to two groups exposed to Human Relations Training and to two groups exposed to Rational Behavior Training. This training occurred during four, 4-hour, weekly sessions. Student t test and analysis of covariance did not show any significant differences in treatment approaches. The results did show that each treatment approach indicated a link to specific outcomes.

Stallworth (1982) designed a study to test Maultsby's Theory of Rational Behavior Therapy for use in lowering the anxiety level of female college students. Twenty experimental and 20 control subjects were used in this research. Training consisted of two hours a week for four consecutive weeks. Pre- and posttests were administered. Statistical analysis at the .05 level showed no significant difference between groups.

Research was conducted by Murphy (1978) to compare the relative effectiveness of Model-Reinforcement Counseling (MRC), Rational Behavior Therapy, and No-Treatment in reducing performance anxiety of counselors-in-training. Forty graduate and undergraduate students who reported high anxiety after viewing a videotaped counseling session with a coached client were used in this study. Two instruments which measure self-rating of anxiety were used before and after the therapy/training. Criteria used included scores on the amount of time spent in vocalization and on empathy ratings of the pre- and posttreatment counseling interview. Statistical treatment results indicated that MRC was more significant than No-Treatment for reducing anxiety, the vocalization scores were not satisfactory for measuring, MRC and RBT did not differ from No-Treatment in facilitating the learning of empathic understanding, and the assumption that anxiety would interfere with the learning of empathic understanding was not verified. The study concluded that anxiety reduction does not lead to enhanced skills performance.

Reister (1975) studied the relative effectiveness of Systematic Desensitization (SD) and Rational Behavior Therapy (RBT) in reducing state and trait anxiety among 41 students. They were assigned to RBT, SD, and No-Treatment (control) groups. Training involved five, 1-hour and 55 minute, weekly sessions. The design was pre- and posttest with a 2 week follow-up test. Significant improvement for the subjects assigned to RBT and SD at the .05 and .02 levels, respectively, was evidenced on the Suinn Test Anxiety

Behavior Scale (STABS) and the Taylor Manifest Anxiety Scale (MAS) in comparison to the No-Treatment group. No significant differences were noted in comparing RBT to SD in reducing STAB scores. RBT was significantly more effective in reducing MAS scores than was SD. The conclusion was that the RBT model may be an alternative to SD for treatment of test anxiety.

Instruments Used in the Study

The Bloom Sentence Completion Survey (Bloom, 1974) and the Dysfunctional Attitude Scale (Weissman, 1980) were used in this study. A review of Bloom's Sentence Completion Survey (BSCS) by Petterson (1985) was favorable. He reported that sentence completion tests are commended for their nonthreating nature, their "face-valid appeal" to those tested, their ability to sample a broad range, and their efficiency in conserving clinician time. He further reported that the BSCS can be commended for its clinical "feel," its clever organization, its ease and meaningfulness in scoring, and its good psychometric beginnings. It may become one of the most used and respected sentence completion tests.

In assessing attitude changes of participants in a 4-week workshop in Transactional Analysis, Bloom (1978) administered the BSCS in pre- and posttesting. He attempted to answer three questions: (a) Would attitudes change? (b) If change occurred, in what direction? and (c) Would results be statistically significant? The results indicated that each participant experienced some change in attitudes; both group and most individual changes were in a positive direction; and statistically significant changes occurred in attitudes toward people, family, psychological self, and work.

Weissman (1980), in her validation study, investigated the appropriateness and utility of the Dysfunctional Attitude Scale (DAS), forms A & B, in assessing the extent individuals have beliefs which predispose them to depression. Results of this study

evidenced that the DAS is reliable as an instrument, and supports construct validity. It also shows support for the cognitive position of depression as expressed by Beck (1963, 1964a, 1967, 1976).

CHAPTER III

PROCEDURES FOLLOWED IN THE DEVELOPMENT OF THE STUDY

The purpose of the study was to conduct a Rational Behavior Training program to ascertain if attitudes and cognitive distortion of subjects will change, positively, and if there is a correlation between the scores on the selected instruments. The procedures used in the study are described as follows: (a) Sources of Information, (b) Preliminary Procedures, (c) Description of the Instruments, (d) Selection and Description of the Subjects, (e) The RBT Sessions, (f) Collection of the Data, and (g) Treatment and Interpretation of the Data.

Sources of Information

Documentary and human sources, training, and past experience were used in the development of this study. Documentary sources included training materials, books, dissertations, periodicals, and computer searches. A structured training model of cognitive behavior therapeutic concepts and skills, primarily based on Rational Behavior Training, was developed by the researcher. This model was designed following clinical training under Maxie C. Maultsby Jr., M.D., psychiatrist and founder of Rational Behavior Training at the University of Kentucky Medical School (Dr. Maultsby is currently chairperson, Department of Psychiatry, Howard University Hospital, Washington D. C.). The model has been used by the researcher with individuals and groups in clinical work since 1976. This experience includes RBT workshops conducted for field practitioners of the Texas Rehabilitation Commission and the Texas Department of Human Resources. The researcher has developed curricula for university students and field practitioners based on

cognitive behavioral therapy concepts, and has used the curricula in teaching graduate and undergraduate students at the University of Texas Health Science Center in Dallas.

Preliminary Procedures

Before initiating the study, permission to use the testing instruments was obtained from the particular authors. Permission to use rehabilitative support personnel in training/research was granted by the Texas Rehabilitation Commission and also by the participants. Documents granting permission are found in Appendix A.

Description of the Instruments

The two instruments used in this study were the Bloom Sentence Completion Survey--Adult (Bloom, 1974), and the Dysfunctional Attitude Scale--Form A (Weissman, 1980). The selection of instruments was based on the following criteria: (a) the instruments ability to measure attitudes and cognitive distortions; (b) the reliability and validity of the tests as determined by the authors and (c) the ability to administer the tests within an hour. Copies of the instruments are found in Appendix B.

The Bloom Sentence Completion Survey--Adult (BSCS) is designed to reveal global attitudes (positive, negative and neutral) about important variables in everyday life situations. The instrument has 40 items to determine attitudes toward people, physical self, family, psychological self, self-directedness, work, accomplishments, and irritants. The scoring system assists in identifying individual changes over time, and can be used to compare individuals, and groups. Bloom (1980) determined that there was little spread in attitudes of individuals toward irritants. The removal of this one category did not affect the validity and reliability of the instrument.

Reliability and validity of this instrument have been reported in studies by Bloom (1980). In 1975, seven enlisted (U.S. Air Force) mental health technicians were trained in the administration of the tests. They completed three hours of instruction, were supervised in scoring 20 tests over a 2 week period, and were given a one hour review. Interrater reliability showed a .90 correlation. Further analysis over a 3 year period, with 39 technician evaluators and 9897 tests, indicated continued good interrater reliability. The BSCS was influenced by previous sentence completion forms and by Bloom's experience in using and modifying the forms in his work with educable mentally retarded youth in the Texas schools; patients in Poterville State Hospital in California; and with patients at the Child Guidance Clinic, Wilford Hall Medical Center, in San Antonio, Texas.

The Dysfunctional Attitude Scale (DAS--Form A or B) is a 40-item instrument designed to measure cognitive distortions. In particular, it measures distortions associated with depression. It is based on Beck's (1976) cognitive therapy model and is constructed to represent seven major value systems: approval, love, achievement, perfection, entitlement, omnipotence, and autonomy. The DAS--Forms A and B, was developed in studies with 216 male and 485 female undergraduate students (predominantly white). Additional research included 105 depressed outpatients, 30 manic depressive outpatients and spouses and 107 depressed patients. The two forms are highly correlated parallel forms derived from 100 psychometric questions. DAS--Form A was used for this study.

A modified Likert scale (Likert, 1932) is used for scoring the DAS, with the adaptive end assigned an arbitrary value of one, the next value two, and so forth, with zero being used for omits (in a seven-point scale). The total score is the sum of the item scores. Higher total scores reflect more distortion in thinking with lower scores indicating less distortion. Scores range from 40 to 280. Corcoran and Fischer (1987), and Weissman

(1980), report excellent internal consistency with alphas ranging from .84 to .92 and excellent stability with test-retest correlations of .80 to .84 over an eight week period. Also, excellent concurrent validity, significantly correlating with other measures of depression and depressive distortions is noted. For example, on the Beck Depression Inventory (BDI) levels of significance for pre- and posttests were $p < 0.001$. The DAS forms are further reported to have good known-groups validity, significantly identifying depressed groups compared to non-depressed groups on the BDI with pre- and posttesting at $p < 0.001$.

Selection and Description of the Subjects

Subjects for this study were rehabilitation support personnel from four supervisory units of the Texas Rehabilitation Commission in San Antonio, Texas. Each unit is located in a different geographical area of San Antonio, Texas. Three supervisors requested and obtained volunteers for the study and one supervisor assigned what he termed "a good cross section" of his personnel to participate. The total number of subjects consisted of 22 female support staff. Their principal work assignments included clerical and technical aspects of servicing rehabilitation client caseloads.

The RBT Sessions

Subjects attended training sessions at the San Antonio regional office of the Texas Rehabilitation Commission during the summer of 1990. The principal investigator conducted the training. Demographic data were obtained for descriptive purposes and pre- and posttests were administered.

Subjects attended three sessions of 3 hours each, which included presentation of concepts and skills practice. In addition to the site training, homework was assigned.

There was a 2-week interval between the first and second sessions, and the final session was initiated 3 weeks after the second session. A make-up session, following the same procedure, was used for four individuals who were absent for the third session. The particular time sequence for training was based on the researcher's prior experience in conducting RBT.

The training site was a conference room located in the San Antonio Regional Office. This conference room comfortably accommodates up to 25 individuals. Seating was arranged in groups of five or six individuals per table. Time off from regular job assignments was allowed for participants to attend training which was conducted on Friday mornings. An outline of the training schedule, basic concepts, and skills practice is found in Appendix C.

Collection of the Data

Pre- and postesting was conducted by the principal investigator of the study. Pretesting was completed at the beginning of the first training session. Copies of both instruments were numbered from 1 to 22 to correspond to the number of subjects. To provide anonymity, instruments were numbered on the inside pages. Sets of attached pre- and posttests were mixed and randomly passed out to the subjects. Subjects were asked to record privately the number found on the pre- and posttests, and to detach and return the posttests. The prettest instruments were completed within a hour.

Instruments were scored by the researcher and, to insure creditability, were scored again by an assistant. On the Bloom Sentence Completion Survey, that is scored subjectively, the final decision on all answers was made by the researcher. Posttesting was completed approximately 4 weeks after the final training session. Subjects who had prerecorded test numbers individually picked out their assigned numbers as prerecorded on

the posttest. The scoring procedure was again repeated. In an attempt to insure reliability in rating, after the final testing, both pre- and posttests of the BSCS were mixed and scored a third time by the same assistant and reviewed by the researcher. The length of time between pre- and posttesting was 9 weeks.

Treatment and Interpretation of the Data

The results of this study did not follow the assumptions of the parametric t test and, therefore, nonparametric tests were used (see chapter 4). The Wilcoxon matched-pairs signed-ranks test (Siegel, 1956) was used to compare pre-and posttesting. Because the hypotheses were made *a* priori, one-tailed tests were used to measure the levels of significance. The level of significance for the Dysfunctional Attitude Scale was $p < 0.05$. In the Bloom Sentence Completion Survey--Adult, the probability level was adjusted by dividing $p<0.05$ by seven (Sokal, & Rohlf, 1981) for an alpha level of of $p<0.007$ (to accommodate the seven separate comparisons needed for any individual test to be significant). The nonparametric Spearman rank correlation coefficient (Siegel, 1956) was used for determining a correlation between scores on the two different instruments.

CHAPTER IV

PRESENTATION & ANALYSIS OF DATA

The results of the study are presented in this chapter which includes a description of the demographic data, description of the test data, and an analysis of the test data. Test comparisons, correlational analysis between instruments, and correlational analysis between pre-and posttests are provided.

Description of the Demographic data

Data were obtained from 22 subjects on the following variables: age, sex, education, race, marital status, number of children, years with the Texas Rehabilitation Commission, and years of experience doing comparable work. The demographic descriptive statistics for the continuous variables are shown in Table 1. Mean age was 37.318 years; education level averaged 12.95; number of children averaged 1.591; mean years with the Texas Rehabilitation Commission was 7.591, and mean years of comparable work experience averaged 7.591. There was little variance in education; however, the number of children, experience with rehabilitation, and with comparable work varied greatly.

The demographic categorical values for sex, race, and marital status are shown in Table 2. All of the subjects were female. Of the subjects, 72.7% were Hispanic and 68.2% were married.

Table 1.

Demographic descriptive statistics for the continuous variables.

	Mean	Std. Dev.	Minimum	Maximum
Age	37.32	6.979	24	52
Education	12.95	0.844	12	15
Children	1.59	1.368	0	5
Years with TX Rehabilitation	7.59	7.229	0	23
Years of Comparable Exp.	7.59	6.953	0	27

Table 2.

Demographic categorical values.

Category	Count	Proportion
SEX		
Male	0	0%
Female	22	100%
RACE		
Caucasian	4	18.2%
Hispanic	16	72.7%
Black	2	9.1%
MARITAL STATUS		
Single	4	18.2%
Married	15	68.2%
Divorced	3	13.6%

The Dysfunctional Attitude Scale (DAS) and the Bloom Sentence Completion Survey (BSCS) data are nonparametric and do not follow the assumptions of the t test or regression analysis. Most scores were non-normally distributed and there were presence of outliers in the data. Figures 1 through 4 are frequency histograms of test scores which show their significant deviations from normality (single line on bar of figure 4 indicates 0 value). To test for deviations from normality, the Kolmogorov-Smirnov goodness of fit test (Siegel, 1956) was used to compare the data to that of a normal distribution.

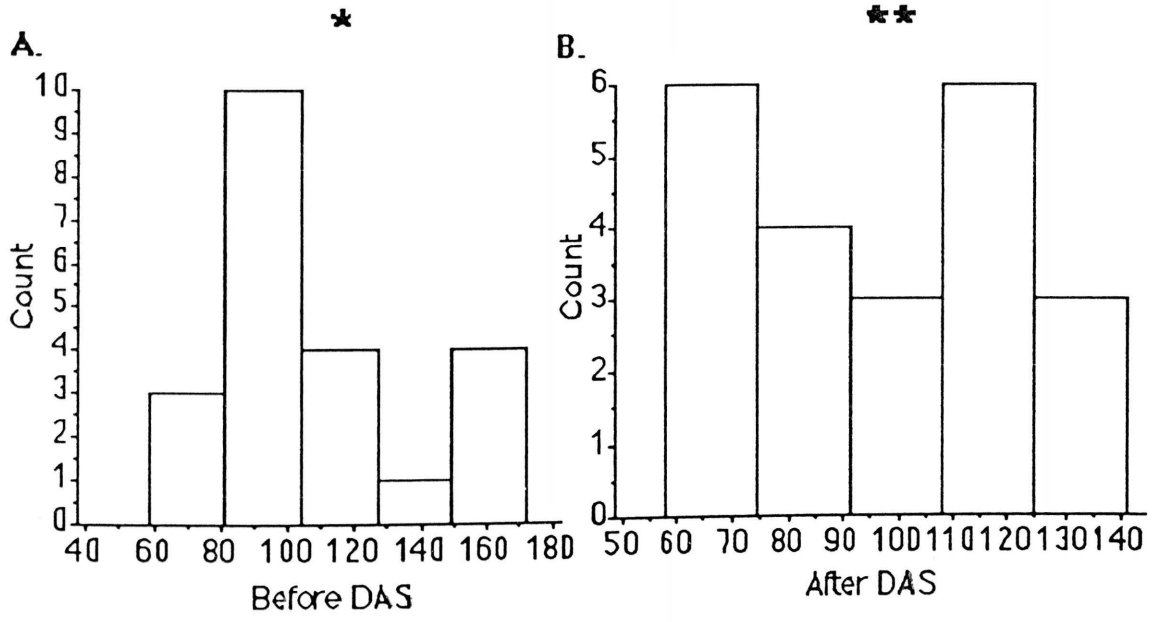

Figure 1. Frequency histograms for the DAS tests * , ** refer to those distributions that significantly vary ($p>0.05$, $p<0.01$ respectively) from normality using the Kolmogorov- Smirnov test for goodness of fit.

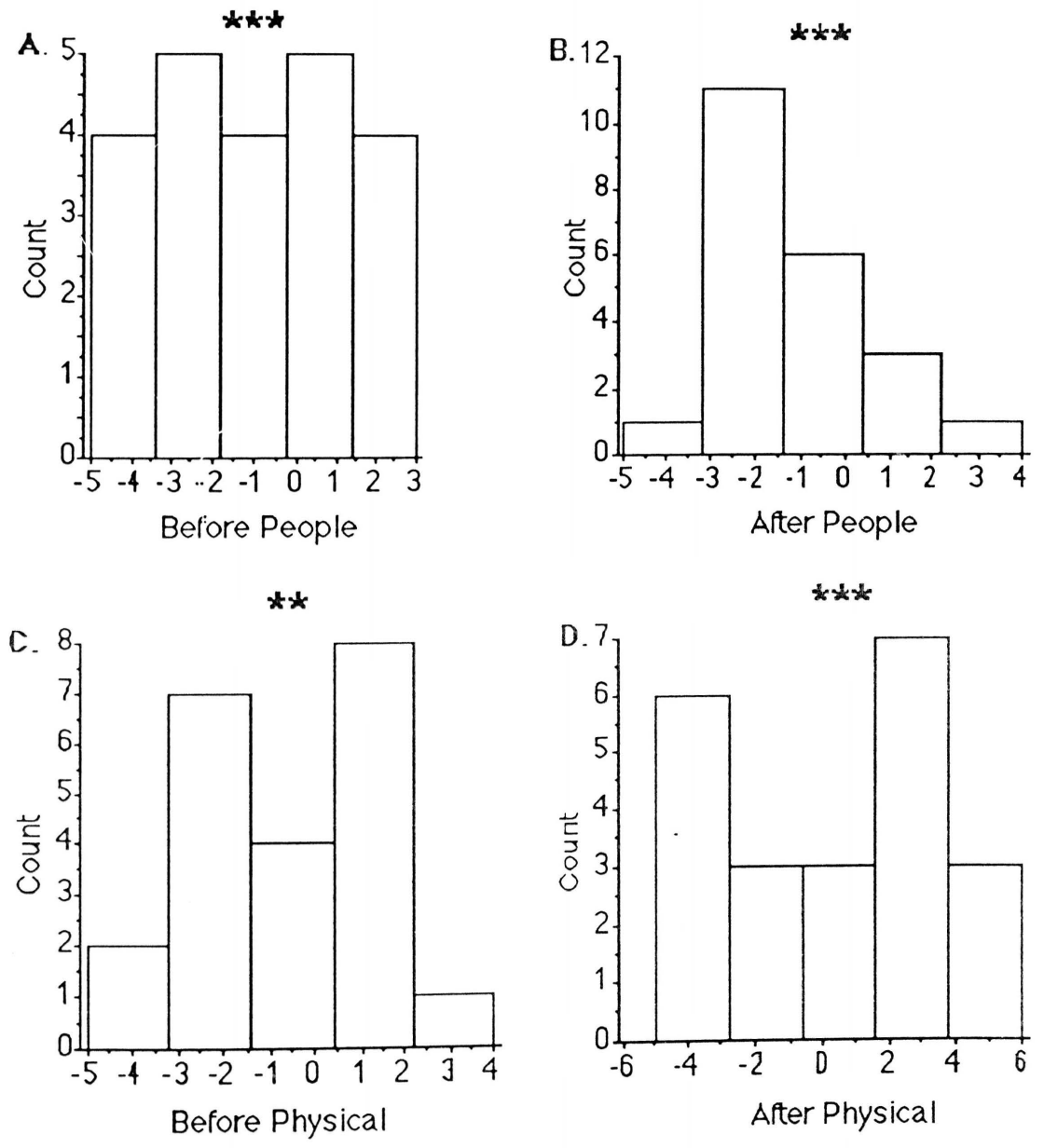

Figure 2. Frequency histograms for the BSCS (for People and Physical Self). *, **, *** refer to those distributions that significantly vary ($p>0.05$, $p<0.01$, $p<0.001$ respectively) from normality using the Kolmogorov-Smirnov test for goodness of fit.

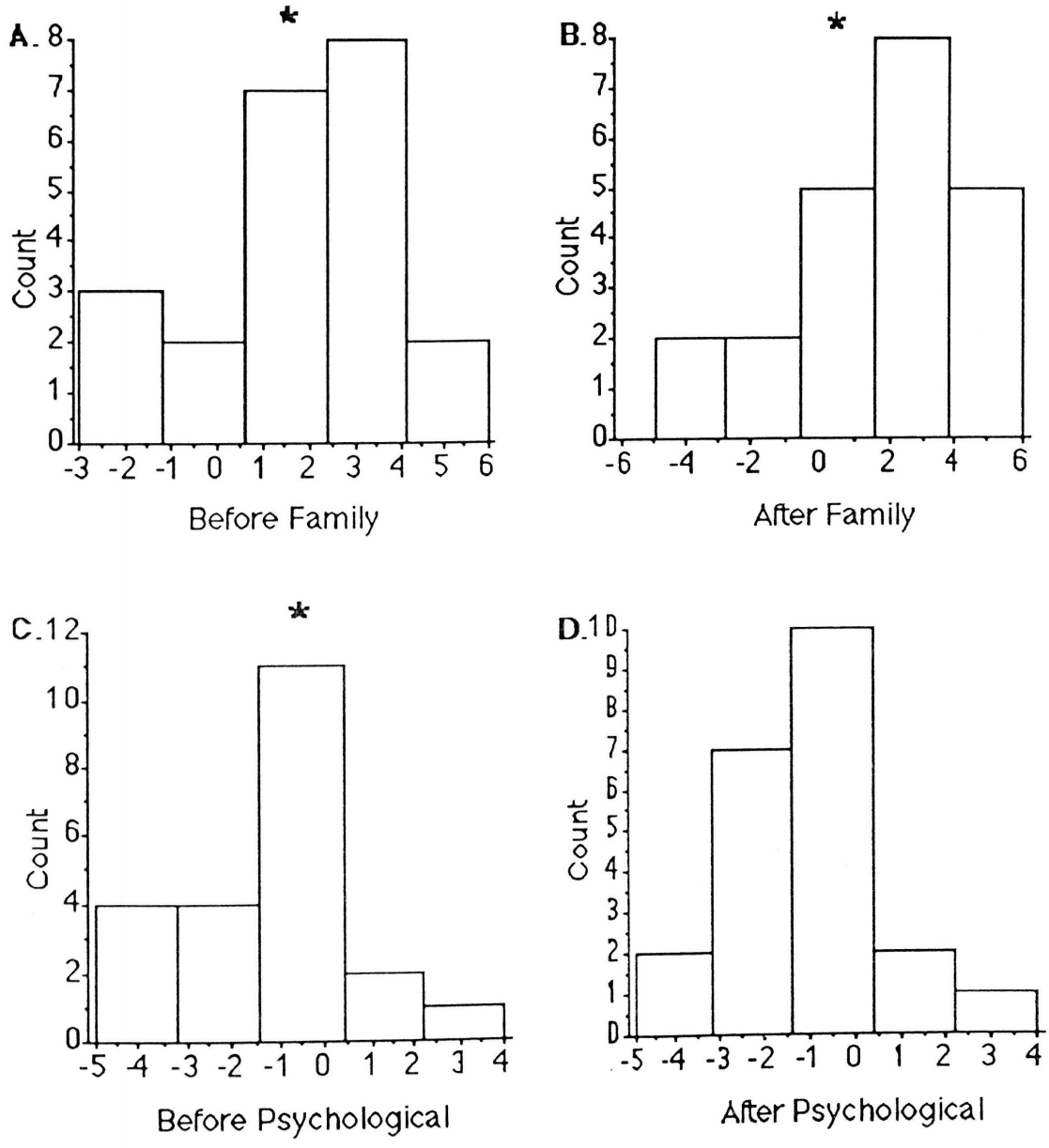

Figure 3. Frequency histograms for the BSCS (for Family and Psychological Self). * , ** , *** refer to those distributions that significantly vary ($p>0.05$, $p<0.01$, $p<0.001$ respectively) from normality using the Kolmogorov-Smirnov test for goodness of fit.

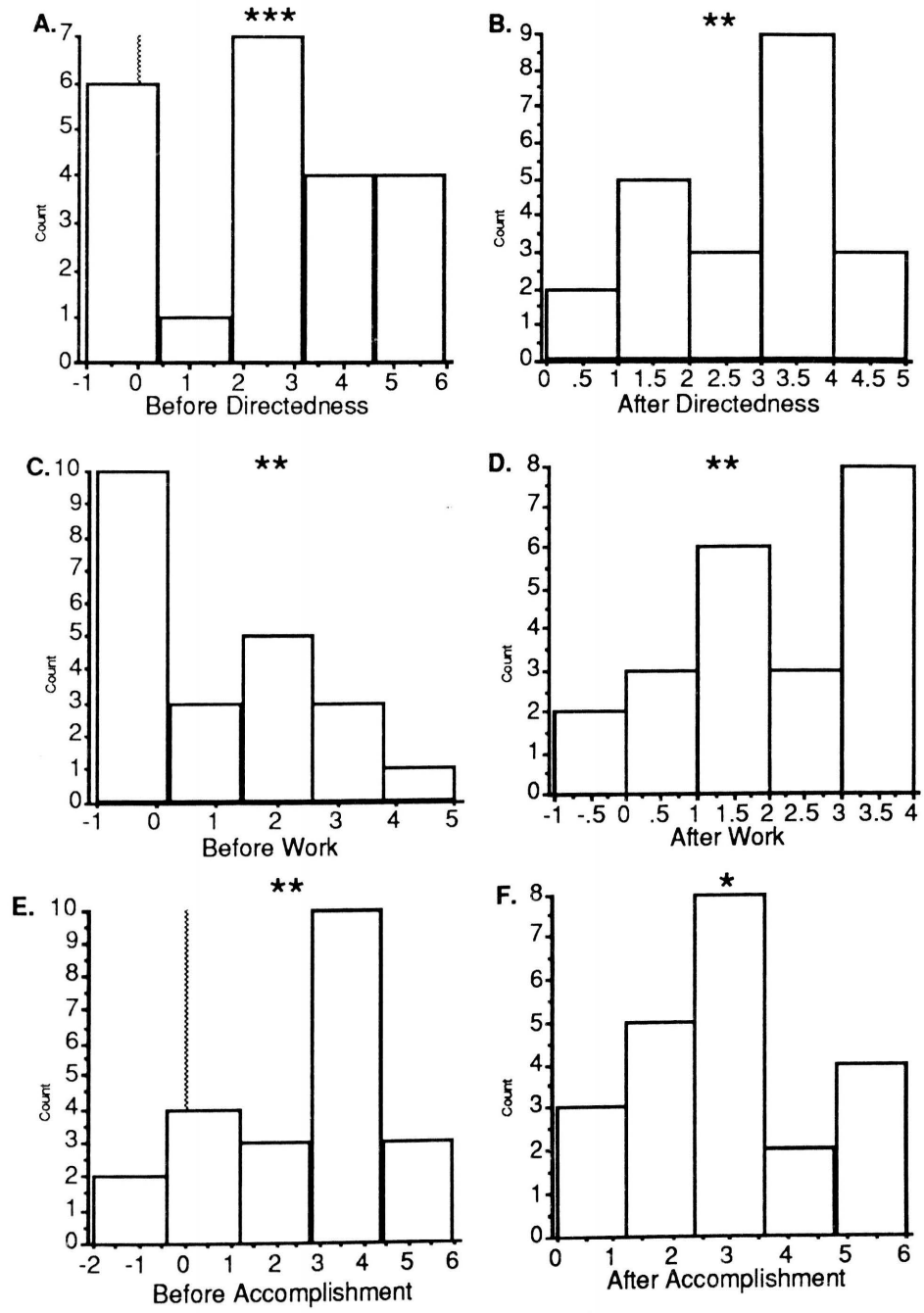

Figure 4. Frequency histograms for the BSCS for (Self-Directedness, Work and Accomplishment). *, **, *** refer to those samples that significantly vary ($p>0.05$, $p<0.01$, $p<0.001$ respectively) from normality using the Kolmogorov-Smirnov test for goodness of fit.

Pre- and posttest variances for many tests were unequal (See Table 3). The Scheffé-Box test (Sokal, & Rohlf, 1981) for homogeneity or variances was used to compare the variances. This is a test for heteroscedasticity (inequality of variances among samples). The DAS test and the BSCS People, Physical, Directedness, and Accomplishment tests all demonstrated unequality of variances.

Table 3.

Variance and deviations from equality of variances for the DAS and BSCS; * refers to those pairs of tests (pre & post) in which there is significant ($F_{[5,21]}$) inequality of variances using the Scheffé-Box test for homogeneity of variances.

Test	Pretest Variance	Posttest Variance	F-Value
DAS	1055.60	629.00	6.8**
BSCS			
People	5.58	3.64	5.48**
Physical	4.92	9.47	7.96***
Family	6.15	6.24	1.34
Psychological	4.61	3.20	2.45
Directedness	4.13	1.54	12.43***
Work	2.29	1.88	2.32
Accomplishment	3.68	1.89	4.67**

*p<0.5, **p<0.01, ***p<0.001

Analysis of the Test Data

The Wilcoxon matched-pairs signed-ranks test was used to compare statistical significance of pre-and posttesting on the DAS and the BSCS since the data were nonparametric. This test provides more weight to a pair showing a large difference between two conditions than to a small difference. It is an appropriate test for the behavioral scientist because it allows the individual to make a decision regarding difference of pairs and can also rank the differences (Siegel, 1956). The Wilcoxon matched-pairs signed-ranks test also has more ability to distinguish differences between groups than the t test in most cases (Sokal & Rohlf, 1981).

Table 4 displays the pre- and posttests comparisons of the DAS and the seven individual tests of the BSCS showing means, standard errors, and significances (Z value). Figures 4 and 5 are bar graphs showing mean and standard errors of the DAS and BSCS.

DAS score comparisons were significantly different at the $p < 0.001$ level. For the BSCS,the significance levels were divided by the number of tests to get the individual test significance levels of $p < 0.007$. The results were as follows:

People- Not significant

Physical- Significant at $p < 0.007$

Family- Not significant

Psychological- Significant at $p < 0.007$

Directedness- Not significant

Work- Significant at $p < 0.05$

Accomplishment- Different, but significant only at $p < 0.10$

Table 4.

Between test comparisons; means, standard errors and significances. N=22.

Test	Pretest Mean ±S.E.	Posttest Mean ±S.E.	Z- Value
DAS	108.55±7.02	97.136±5.17	-2.69***
BSCS			
People	-1.182±.504	-1.273±.407	0.04
Physical Self	-.818±.473	0.182±.657	-2.62***
Family	1.64±.529	1.640±1.64	0.0
Psychological Self	-1.73±.401	-0.682±.318	-2.56***
Self-Directedness	2.32±.433	2.270±.265	-0.10
Work	0.95±.322	1.540±.292	-1.63**
Accomplishment	2.41±.409	2.910±.294	0.75*

*p<0.10,**p<0.05,***p<0.007

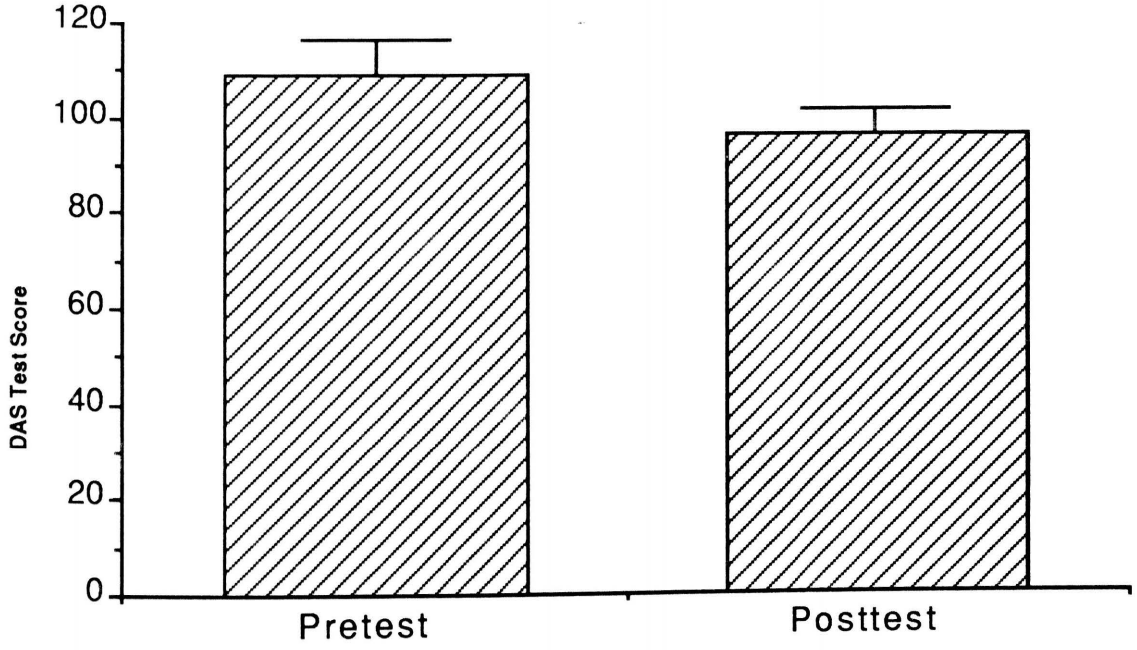

Figure 5. DAS pre- and posttest comparisons. Mean and standard error bars are shown, N=22.

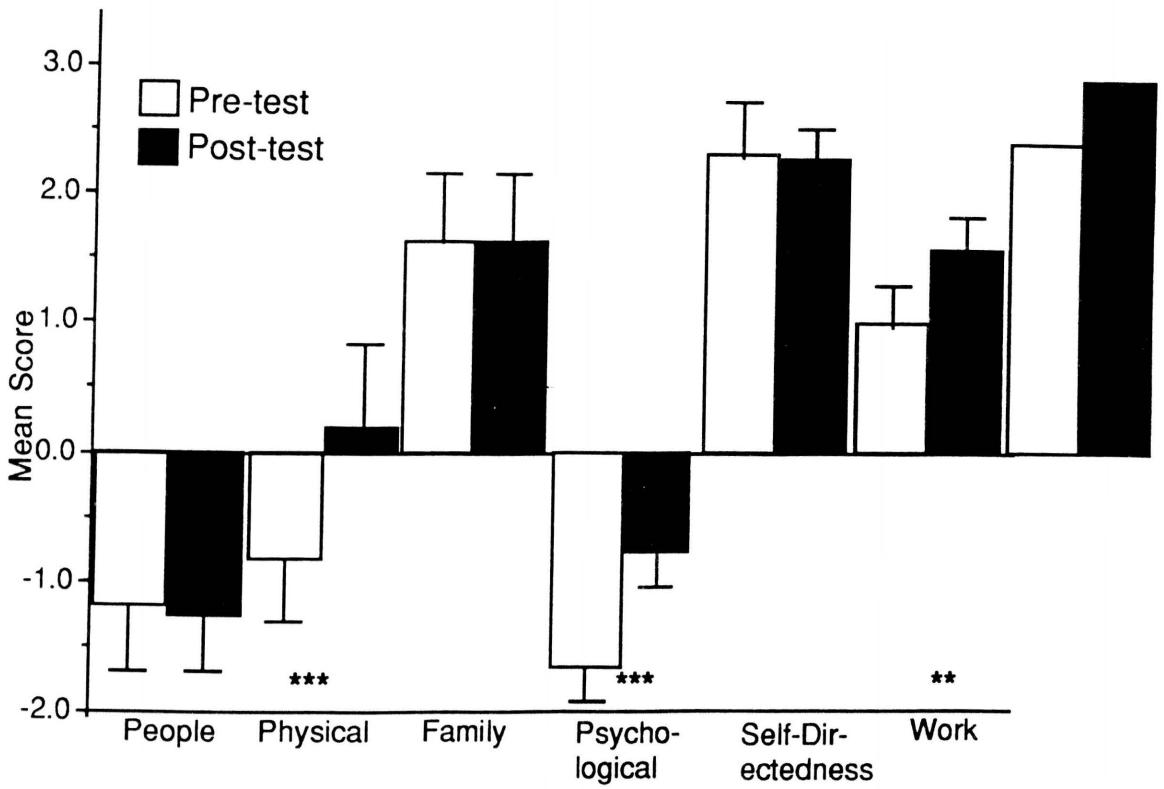

Figure 6. Pre- and posttest scores on the BSCS. Mean and standard error bars are shown, N=22. * p<0.10, ** p<0.05, *** p<.007.

Correlational Analysis Between Scores on the Two Instruments

The correlation between the DAS and different BSCS tests are shown in Table 5. The Spearman rank correlation coefficient was used. For all statistics based on correlation of ranks it is probably the best known. It is a measure of association requiring both variables be measured, minimally, in an ordinal scale so individuals can be ranked in two ordered series (Siegel, 1956). Significance was determined by z-value.

The data relate that only one individual test (Psychological) correlated with the DAS test. This test was highly correlated at $p < 0.001$. All other individual tests of the BSCS were uncorrelated.

Table 5.

Correlation between DAS test and the different BSCS tests. N=22

BSCS Test	Spearman's RHO	Z-Value
People	-.093	-0.425
Physical	-.052	-0.239
Family	.034	0.155
Psychological	-.739	-3.385***
Directedness	-.083	-0.380
Work	-.049	-0.226
Accomplishment	-.290	-1.328

*p<0.05, **p<0.01, ***p<0.001

Correlational Analysis Between Pre-and Posttests

The correlation (test stability) between pre-and posttests of each instrument is shown in Table 6. Test-retest stability is one of the components of reliability (Aiken, 1979; Polit & Hungler, 1987). The data show the DAS stability to be high at $p < 0.001$. In the BSCS, Physical Self and Family show high stability at $p < 0.001$. Psychological Self indicated stability at $p < 0.01$ while Self-Directedness was at $p < 0.05$. Overall indications of test-retest stability of the BSCS were low.

Table 6.
Test-retest correlation (Test Stability) between pre and post DAS and BSCS. N=22.

Test	Spearman's RHO	Z-Value
DAS	.815	3.733***
BSCS		
PEOPLE	.323	1.478
PHYSICAL SELF	.796	3.650***
FAMILY	.727	3.330***
PSYCHOLOGICAL SELF	.547	2.509**
SELF-DIRECTEDNESS	.411	1.885*
WORK	.359	1.643
ACCOMPLISHMENT	.053	0.243

*p<0.05, **p<0.01, ***p<0.001

DAS Finding

Further analysis of the DAS scores indicated that the training seemed to have provided the most help to those subjects who scored high on the tests. Of the eleven highest scores (See Appendix E Raw Data) which constituted the upper 50%, 91% of the subjects scores improved (lowered) after training.

CHAPTER V

SUMMARY, FINDINGS, DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

Summary

The purpose of the study was to conduct a Rational Behavior Training program to determine if attitudes and cognitive distortion would change positively, and to determine if there is a correlation between the scores on the two instruments used in the study. The Dysfunctional Attitude Scale (DAS) and the Bloom Sentence Completion Survey (BSCS) were the instruments selected for data collection. Both the training sessions and the testing were conducted by the principal investigator. Subjects for the study were rehabilitation support personnel of the Texas Rehabilitation Commission. They attended three training sessions at the San Antonio regional office of the Commission during the summer of 1990.

The data directed that nonparametric tests be used. The Wilcoxon matched-pairs signed-ranks test was initiated to compare pre-and posttesting. The Spearman rank correlation coefficient was used to determine if a correlation existed between scores on the two instruments.

Findings

The results of the hypotheses tested for significance are as follows:

Hypothesis 1.

There will be an increase in positive attitudes concerning health/human issues following RBT intervention. ACCEPTED.

Using the Wilcoxon matched-pairs signed-ranks test indicated that the BSCS showed a high level of significance for two of the instrument's seven individual tests.

These were Psychological and Physical at the $p< 0.007$ level. Work was significant at the lessor level of $p< 0.05$.

Hypothesis 2.

There will be a decrease in cognitive distortion following RBT intervention. ACCEPTED.

The Wilcoxon matched-pairs signed-ranks test showed the DAS score comparison of pre- and posttests to be significantly different at the $p< 0.001$ level.

Hypothesis 3.

An inverse relationship will be found between scores on the test instruments. ACCEPTED.

The Spearman rank correlation coefficient, which was used for correlation between the two instruments (the DAS and the seven individual tests of the BSCS), indicated that only one test, Psychological, correlated with the DAS at a high level of $p< 0.001$.

Discussion

There was a significant difference ($p< 0.001$) in the scores on the Dysfunctional Attitude Scale (DAS) following the Rational Behavior Therapy training. Based on this significance level, it is felt the training did influence the subjects in reducing their cognitive distortion. In an analysis of the test results it is important to note that the training was most beneficial for those subjects who scored high on the DAS pretest (a high score indicates a higher level of distortion). Of the eleven subjects with the highest scores, 91% improved on the posttest. The individual with the highest score improved 54 points (appendix E). This is indicative of the value of the training in working with subjects who are most prone to irrational self-defeating thought processes.

The DAS had a significant correlation (inverse relationship) with only one individual test of the Bloom Sentence Completion Survey (BSCS). This was the Psychological. One explanation for high correlation with the Psychological test could be that both instruments, the DAS and the individual test of the BSCS, measured similar psychological content items. The hypothesis, therefore, that an inverse relationship was found between scores on the test instruments may be misleading.

The test-retest stability of the DAS using correlational analysis between pre-and posttest was high. This analysis and the instrument's positive history in measuring cognitive distortion indicated that it was appropriate for the study.

There was a significant difference in two of the seven tests of the BSCS following the RBT training. Both the Physical and the Psychological components of the instrument showed significance at the $p< 0.007$ level. It can be said, therefore, that the RBT training did result in an increase in positive attitudes in some aspects of health/human issues as measured by the BSCS.

Possible explanations for the BSCS findings could be: (a) The training geared itself to particular components of the test, especially the Psychological component which was highly correlated with the DAS; (b) The BSCS may be influenced by the participants mood of the particular day. For example, after the testing, one subject stated that she had personal problems that day and did not accurately indicate what her first thoughts were on the sentence completion items; (c) The BSCS, as analyzed for stability between before and after tests, showed overall low test-retest stability. Thus, there is the question of the instrument not being appropriate for this study.

Demographic data, while not directly related to measurement in this study, is important in understanding the scope of the study and for future replications. All 22

subjects were female. The mean age of the subjects was 37 years (rounded) with the range being 24 to 52 years. This indicates a mature individual. Education was 13 grades (rounded), with a range of 12 to 15 grades. This points to individuals who are generally above high school level in education and have, according to job description, at least clerical skills. The mean years of work with the Texas Rehabilitation Commission was 7.591. The range was 0 to 23 years. The mean years of work experience in comparable work was also 7.591 with the spread from 0 to 27 years. Both statistics indicate subjects who are generally work sophisticated and stable in employment. This sophistication and stability of subjects, along with age maturity and educational level, could have positively influenced their willingness to change.

The study was delimited by the size as well as the demography of the sample. Also the study was limited by the subjects availability. It depended on subjects who were allowed training time off from regular employment duties. No control group was available. It is felt that future replications would produce more significance if these variables were addressed in expanded studies.

Conclusion

Rational Behavior Therapy Training significantly decreased cognitive distortion as measured by the (DAS) and significantly increased positive attitudes regarding health and human issues on 2 of the 7 tests of the BSCS. A significant inverse relationship was found between the DAS and only one of the individual tests of the BSCS.

Recommendations

Based on this study, the following recommendations are offered for future studies:

1. Utilize Rational Behavior Therapy training for diverse populations and in varied training environments to determine its effectiveness.

2. Replicate the study by using a different instrument, other than the BSCS, along with the Dysfunctional Attitude Scale.

3. Use a larger sample size.

4. Use a broader demographic base.

5. Include a control group in replication of this study.

6. Select subjects who have flexible availability.

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APPENDICES

Appendix A:
Permission Letters

Texas Rehabilitation Commission

"A Human Energy Agency"

VERNON M. ARRELL
Commissioner

San Antonio Field Office West
1222 Callaghan Road
San Antonio, Texas 78228
(512) 434-9421 / FAX (512) 434-3552

TO: Norman C. Hooge, C.R.C.,
Vocational Rehabilitation Counselor
San Antonio F.O. West

FROM: Terry W. Smith, C.R.C., Terry Smith, CRC
Regional Director
San Antonio Regional Office

DATE: MAY 7, 1990

SUBJ: EFFECTS OF RATIONAL BEHAVIOR TRAINING ON ATTITUDES OF REHABILITATION SUPPORT PERSONNEL: A DISSERTATION PROPOSAL, TEXAS WOMEN'S UNIVERSITY.

I have reviewed your research proposal which discusses rational behavior therapy training to be conducted with employees of the Texas Rehabilitation Commission. I approve this research/training to assist you in your study and to benefit TRC employees who will be trained. Please assure that the issue of confidentiality and a clear explanation to participants regarding the research aspect is provided up front.

TWS:im

WALLACE BLOOM, PH.D.
2619 McCullough
San Antonio, Texas 78212

Clinical Psychology 735-6231

I hereby authorize Mr. Norman Hooge to use the Bloom Sentence Completion Survey for his research project.

DATE: March 14, 1990

Wallace Bloom

Wallace Bloom, Ph.D.
Clinical Psychologist

Norman –

Sorry for the delay –

You may use the DAS with your dissertation research – Good Luck!

Arlene Rice

Appendix B:
Instruments

BLOOM SENTENCE COMPLETION SURVEY (ADULT)
ANALYSIS RECORD

NAME	SEX	AGE Yr__ Mo__	DATE
SSN:	EXAMINER:		

ITEM					+	0	–	NET	ATTITUDE TOWARDS:
1	9	17	25	33					PEOPLE
2	10	18	26	34					PHYSICAL SELF
3	11	19	27	35					FAMILY
4	12	20	28	36					PSYCHOLOGICAL SELF
5	13	21	29	37					SELF-DIRECTEDNESS
6	14	22	30	38					WORK
7	15	23	31	39					ACCOMPLISHMENT

8. . . . rather do without:	IRRITANTS
16. . . . bothers me most is:	
24. . . . makes me angry is:	
32. . . . suffer most from:	
40. . . . only had:	

NOTES

BLOOM SENTENCE COMPLETION SURVEY (ADULT)

NAME: _____ SEX: _____ AGE: _____ DATE: _____

SSN: _____

1. OTHER PEOPLE USUALLY _____
2. WHEN I LOOK AT MYSELF, I _____
3. I THINK MY FAMILY _____
4. MOST PEOPLE DON'T KNOW THAT I _____
5. WHEN I HAVE SPARE TIME, I _____
6. MOST SUPERVISORS _____
7. WHEN OTHERS DO BETTER _____
8. I WOULD RATHER DO WITHOUT _____
9. MOST PEOPLE MY AGE _____
10. MY BODY IS _____
11. MARRIED PEOPLE _____
12. THERE ARE TIMES WHEN I _____
13. DISCIPLINE AND RULES ARE _____
14. WHAT I LIKE MOST ABOUT MY WORK IS _____
15. TEN YEARS FROM NOW, I _____
16. WHAT BOTHERS ME MOST IS _____
17. IF OTHER PEOPLE MY AGE _____
18. MY FACE _____
19. MY (WIFE OR MOTHER) USUALLY _____

BLOOM SENTENCE COMPLETION SURVEY (ADULT) – Continued

20. SECRETLY._____

21. PUTTING ME IN CHARGE WOULD._____

22. THE SUPERVISOR I LIKED BEST WAS A PERSON WHO_____

23. MY WORK HAS BEEN_____

24. WHAT MOST UPSETS ME AND MAKES ME ANGRY IS._____

25. PEOPLE ARE SLOW TO_____

26. THE CLOTHES I PICK TO WEAR_____

27. MY FAMILY AND I OFTEN_____

28. PEOPLE THINK OF ME AS _____

29. WHEN I'M PUT UNDER PRESSURE OR THE WORK GETS HARDER, I_____

30. WHAT I LIKE LEAST ABOUT MY WORK IS_____

31. LOOKING AHEAD TOWARDS THE FUTURE, I _____

32. I SUFFER MOST FROM_____

33. MOST (MEN OR WOMEN)_____

34. MY LEGS_____

35. MY (HUSBAND OR FATHER) USUALLY_____

36. WHEN I LET MYSELF GO_____

37. A PERSON MY AGE SHOULD_____

38. WORK USUALLY_____

39. SOMEDAY I WILL_____

40. IF I ONLY HAD_____

DAS FORM A

This Inventory lists different attitudes or beliefs which people sometimes hold. Read EACH statement carefully and decide how much you agree or disagree with the statement.

For each of the attitudes, show your answer by placing a checkmark (✓) under the column that BEST DESCRIBES HOW YOU THINK. Be sure to choose only one answer for each attitude. Because people are different, there is no right answer or wrong answer to these statements.

To decide whether a given attitude is typical of your way of looking at things, simply keep in mind what you are like MOST OF THE TIME.

EXAMPLE:

ATTITUDES	TOTALLY AGREE	AGREE VERY MUCH	AGREE SLIGHTLY	NEUTRAL	DISAGREE SLIGHTLY	DISAGREE VERY MUCH	TOTALLY DISAGREE
1. Most people are O.K. once you get to know them.			✓				

Look at the example above. To show how much a sentence describes your attitude you can check any point from totally agree to totally disagree. In the above example the checkmark at "agree slightly" indicates that this statement is somewhat typical of the attitudes held by the person completing the inventory.

Remember that your answer should describe the way you think MOST OF THE TIME

NOW TURN THE PAGE AND BEGIN

DAS

ATTITUDES	TOTALLY AGREE	AGREE VERY MUCH	AGREE SLIGHTLY	NEUTRAL	DISAGREE SLIGHTLY	DISAGREE VERY MUCH	TOTALLY DISAGREE
REMEMBER, ANSWER EACH STATEMENT ACCORDING TO THE WAY YOU THINK MOST OF THE TIME.							
1. It is difficult to be happy unless one is good looking, intelligent, rich and creative.							
2. Happiness is more a matter of my attitude towards myself than the way other people feel about me.							
3. People will probably think less of me if I make a mistake.							
4. If I do not do well all the time, people will not respect me.							
5. Taking even a small risk is foolish because the loss is likely to be a disaster.							
6. It is possible to gain another person's respect without being especially talented at anything.							
7. I cannot be happy unless most people I know admire me.							
8. If a person asks for help, it is a sign of weakness.							

ATTITUDES	TOTALLY AGREE	AGREE VERY MUCH	AGREE SLIGHTLY	NEUTRAL	DISAGREE SLIGHTLY	DISAGREE VERY MUCH	TOTALLY DISAGREE
9. If I do not do as well as other people, it means I am an inferior human being.							
10. If I fail at my work, then I am a failure as a person.							
11. If you cannot do something well, there is little point in doing it at all.							
12. Making mistakes is fine because I can learn from them.							
13. If someone disagrees with me, it probably indicates he does not like me.							
14. If I fail partly, it is as bad as being a complete failure.							
15. If other people know what you are really like, they will think less of you.							
16. I am nothing if a person I love doesn't love me.							
17. One can get pleasure from an activity regardless of the end result.							
18. People should have a reasonable likelihood of success before undertaking anything.							

ATTITUDES	TOTALLY AGREE	AGREE VERY MUCH	AGREE SLIGHTLY	NEUTRAL	DISAGREE SLIGHTLY	DISAGREE VERY MUCH	TOTALLY DISAGREE
19. My value as a person depends greatly on what others think of me.							
20. If I don't set the highest standards for myself, I am likely to end up a second-rate person.							
21. If I am to be a worthwhile person, I must be truly outstanding in at least one major respect.							
22. People who have good ideas are more worthy than those who do not.							
23. I should be upset if I make a mistake.							
24. My own opinions of myself are more important than other's opinions of me.							
25. To be a good, moral, worthwhile person, I must help everyone who needs it.							
26. If I ask a question, it makes me look inferior.							
27. It is awful to be disapproved of by people important to you.							
28. If you don't have other people to lean on, you are bound to be sad.							

ATTITUDES	TOTALLY AGREE	AGREE VERY MUCH	AGREE SLIGHTLY	NEUTRAL	DISAGREE SLIGHTLY	DISAGREE VERY MUCH	TOTALLY DISAGREE
29. I can reach important goals without slave driving myself.							
30. It is possible for a person to be scolded and not get upset.							
31. I cannot trust other people because they might be cruel to me.							
32. If others dislike you, you cannot be happy.							
33. It is best to give up your own interests in order to please other people.							
34. My happiness depends more on other people than it does on me.							
35. I do not need the approval of other people in order to be happy.							
36. If a person avoids problems, the problems tend to go away.							
37. I can be happy even if I miss out on many of the good things in life.							
38. What other people think about me is very important.							
39. Being isolated from others is bound to lead to unhappiness.							
40. I can find happiness without being loved by another person.							

Appendix C:
RBT Sessions

Rational Behavior Training: Concepts and Skills

Overview of Sessions

(3 hours each)

1st Session

-Introduction of research and workshop

-Pretesting

-Concepts of RBT (Slides)

-Homework Assignments

2nd Session

-Review of RBT concepts/ individual homework

-Group work on health and human issues

-Homework assignments

3rd Session

-Review and reinforcing of concepts

-RBT Video

-Irrational and self-defeating beliefs (Slides)

-Closure

Posttesting (4 weeks later)

OUTLINE OF BASIC RBT CONCEPTS

(Goodman & Maultsby , 1974; Maultsby, 1975; Maultsby & Hendricks, 1974)

I. Your Emotions

A. You make yourself feel the way you feel (unless someone is in physical control of you or there are organic, disease or drug induced problems).

B. You can also make yourself feel differently if you want to.

II. Rational View of an Emotion

A. An emotion is made up of;

1. Perceptions
2. Evaluating thoughts which you believe
3. Feelings (positive, negative, neutral)

B. Your thoughts cause your feelings.

1. Angry thoughts make angry feelings.
2. Depressed thoughts cause depressed feelings.
3. Positive thoughts result in positive feelings.

C. Your actions usually follow your feelings.

III. Rational Thinking

A. You can make yourself feel better if you

1. Look at your thoughts.
2. See if your thoughts make sense or nonsense.

B. Five criteria (rules) for rational thinking and behavior

1. They're true (i.e. based on objective reality).
2. They lead you to protect your life.
3. They lead you to get what you want.

4. They keep you from feeling the way you don't want to feel.

5. They keep you out of trouble you don't want with other people, e.g. police, boss, sweetheart, spouse.

C. Remember: You have to think better before you will feel better.

IV. ABC's of the How to Feel Better

A. Rational Self Analysis

1. RSA is a written rational analysis of a personal problem.

2. It is a method you can use to teach yourself what irrational thoughts and beliefs you have and what rational thoughts and beliefs it would be best for you to have.

3. You learn to do RSA's by doing them.

B. Steps in doing an RSA

1. You first separate the event into:

a. It's objective facts

b. Your thoughts, attitudes and beliefs about the facts

c. Your emotional response to them

2. Then you write out the five rules of rational thinking and use them to challenge any of your irrational thoughts about the facts.

3. You write rational substitutes for any of these irrational thoughts.

C. Practical use of the five rules of rational thinking

1. Is this thought true?

2. Does this thought lead me to protect my life ?

3. Does this thought get me what I want.?

4. Does this thought keep me from feeling the way I want to feel?

5. Does this thought keep me out of trouble with others I don't want?

D. The advantages of thinking rationally are obvious

1. You stop feeling so bad.

2. You start behaving the way you want.

3. You start getting what you want.

E. To get these benefits start doing RSA's on your own problems. Picture a situation in which you've been upset and write it out in the RSA format.

V. Rational-Emotive Imagery

A. The rational use of your imagination

1. REI can help you speed up learning how to feel the way you want and behave in a way that will get you what you want.

2. Knowing how to think and act better does not automatically make you feel better.

3. You have to practice thinking and behaving rationally in those old situations before you can begin to feel better.

B. Using REI to change feelings

1. You can change your mind and physical behavior much faster than you can change your old habits of emotional feelings.

2. The best way to get rid of an old habit of emotional feeling is to practice not having the old feelings at the times you usually have them.

3. The best way to do that is to do daily mental practice (REI), e.g., imagine yourself making your old mistakes without getting angry at yourself. Then imagine yourself doing what you want to do without making a mistake.

C. Steps to go through to prepare for and to do REI.

1. Do an RSA on the situation where you upset yourself. Be sure your challenges are effective.

2. Next, get in a comfortable chair and relax your body.

3. In your mind picture yourself back in the situation that you did the RSA on. But now, think only your rational challenges written in the RSA.

4. Feel calm about the situation throughout the whole time you are doing REI. If you start to get upset, stop; get calm and start REI again.

5. Finally, picture yourself feeling and acting in the rational way you want to feel and act in that situation in the future.

D. REI is the fastest way to learn to think, feel and act rationally. It is the best way to get the most from your imagination.

GROUP EXERCISE - FAMILY

Perception / Event:

My husband came home reporting his secretary just had her hair restyled and she looked wonderful. He suggested that I consider this style.

Self-Talk:

(1) My husband doesn't like my hair.

(2) He finds his secretary more attractive.

(3) He is tired of me. He doesn't love me as much anymore.

Emotions:

Jealousy; inadequacy; fear

Feelings Desired:

Feel "O.K."; self-assured; in control

GROUP EXERCISE - PHYSICAL SELF

Perception / Event:

Again, I stopped doing my exercises.

Self-Talk:

(1) Exercise is O.K. for people who don't have to work all day.

(2) I might as well totally quit because I just can't keep it up.

(3) I get enough exercise anyway.

(4) I could exercise if my (husband, boyfriend) worked out with me. He gives me no support.

Emotions:

Defensiveness; frustration; guilt; self-pity; blame

Feelings Desired:

I want to feel good about myself.

GROUP EXERCISE - SELF-DETERMINATION

Perception / Event:

I have just dropped the college course I've always wanted to take because my time is limited with working, keeping house, raising kids etc.

Self-Talk:

(1) I can never do what I want!

(2) I'm stuck in a rut!

(3) I don't have what it takes to go back to school.

Emotions:

Self-defeated; lack of confidence

Feelings Desired:

Self-Confident; in charge

GROUP EXERCISE - WORK

Perception / Event:

At work, in addition to my regular responsibilities, I have been assigned to a committee, which meets twice a week for a month, to develop a program to better manage time.

Self-Talk:

(1) If they would just get rid of the people who dreamed this up there wouldn't be any problem.

(2) I'm going to better manage my mental health and "dump" this agency.

(3) I can't afford to quit- I'm stuck!

Emotions:

Frustration; anger; helplessness

Feelings Desired:

Feeling good; in-control; relaxed

GROUP EXERCISE - PEOPLE

Perception / Event:

I hurried to the store in my cutoffs and old shirt to buy some bread. A well dressed woman saw me heading for the check-out counter and rushed in ahead of me.

Self-Talk:

(1) She thinks she's better than me.

(2) She thinks she can push me around.

(3) I shouldn't have worn these clothes. Everyone thinks I'm a bum.

Emotions:

Anger; inadequacy; ashamed

Feelings Desired:

Self-Confidence; calmness; self-pride

GROUP EXERCISE - ACCOMPLISHMENT

Perception / Event:

I visited some friends last night whom I knew in high school ten years ago. My husband and I had lived in the same part of town and had almost the same income. Now they have a beautiful home and lots of money- we don't.

Self-Talk:

(1) I've accomplished nothing in my life.

(2) I live in this broken down shack I call a home.

(3) I'll never make good money with my education.

Emotions:

Depressed; trapped

Feelings Desired:

Happy for them and us; pleased with self; security

Appendix D:
Demographic Information Sheet

DEMOGRAPHIC INFORMATION

AGE: _____

SEX: _____

EDUCATION: _____

RACE-CULTURAL ORIGIN: _____

MARITAL STATUS: _____

NUMBER OF CHILDREN: _____

YEARS WITH THE TEXAS REHABILITATION COMMISION: _____

YEARS OF OTHER EXPERIENCE DOING COMPARABLE WORK: _____

Appendix E:
Raw Data

Demography Data

Age	Sex	Education	Race	Marital Status	Children	Years with TX rehab	Years of Comp. Exp.
35	Female	13	Caucasian	Married	1	9	5
28	Female	12	Hispanic	Married	2	11	0
36	Female	15	Caucasian	Married	0	4	0
37	Female	13	Hispanic	Divorced	2	3	11
39	Female	13	Hispanic	Married	1	15	2
37	Female	12	Hispanic	Single	0	17	0
46	Female	12	Caucasian	Married	2	23	5
24	Female	14	Black	Single	0	1	6
36	Female	13	Black	Single	2	3	10
32	Female	13	Hispanic	Married	2	3	8
52	Female	12	Hispanic	Married	5	14	15
28	Female	13	Hispanic	Married	0	11	0
31	Female	14	Hispanic	Single	0	3	5
36	Female	12	Hispanic	Married	0	2	19
51	Female	13	Hispanic	Married	2	1	27
40	Female	14	Caucasian	Divorced	2	3	11
40	Female	12	Hispanic	Married	2	1	17
39	Female	13	Hispanic	Married	3	0	6
40	Female	14	Hispanic	Married	1	19	1
45	Female	12	Hispanic	Divorced	1	19	6
37	Female	13	Hispanic	Married	3	2	6
32	Female	13	Hispanic	Married	4	3	7

DAS and BSCS Test Scores

Before DAS	After DAS	Before People	After People	Before Physical	After Physical	Before Family	After Family
59	68	-1	-3	-4	-3	4	3
62	58	2	3	2	5	3	1
76	68	0	-2	-2	-3	-3	-5
83	91	-5	-3	-1	2	-1	0
84	74	-5	-2	1	3	-1	-1
85	90	-2	1	-2	-4	3	1
91	91	-2	-3	-2	0	3	3
96	112	2	0	-5	-5	2	2
97	61	-1	0	-3	-2	1	2
97	72	-3	-2	2	2	1	4
98	97	2	-3	1	-1	5	3
101	109	1	-1	1	2	3	5
103	75	2	-3	2	2	4	4
106	105	-3	-3	-3	-4	-3	-3
108	121	-3	-2	-1	1	3	2
111	103	0	1	3	4	2	1
136	122	-1	0	1	4	4	3
138	109	0	0	-1	2	2	4
150	140	1	1	-1	0	-3	-1
167	137	-1	-2	-3	2	1	2
169	115	-4	-5	0	2	5	5
171	119	-5	0	-3	-5	1	1

Before Psycho-logical	After Psycho-logical	Before Self Directed-ness	After Self Directed-ness	Before Work	After Work	Before Accomplis hment	After Accomp-lishment
1	1	2	1	0	1	2	0
1	-1	1	3	2	3	5	5
0	-1	5	3	1	1	3	2
0	1	2	1	0	3	3	2
0	0	0	3	3	3	3	3
0	0	3	2	-1	3	3	3
-1	-1	4	3	2	2	3	3
-2	1	-1	0	0	1	2	2
-3	-4	2	1	0	0	4	3
0	0	4	4	0	1	4	3
-4	-2	-1	3	1	-1	-2	5
-3	0	3	4	4	3	5	2
-2	-1	4	4	1	3	4	4
0	-1	0	0	1	2	3	5
-3	0	5	3	2	3	0	5
-3	-1	2	3	2	1	0	3
-5	-3	5	1	-1	3	3	2
-1	3	4	3	3	2	1	4
-3	-2	0	2	0	0	2	1
-1	-1	5	3	2	3	-1	1
-4	-2	2	1	-1	-1	1	3
-5	-1	0	2	0	-1	5	3