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A Review of Outcome Studies of Rational Emotive Therapy, 1982-1989

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A REVIEW OF OUTCOME STUDIES OF RATIONAL EMOTIVE THERAPY 1982 - 1989

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CHAPTER I

BACKGROUND, THEORY, AND PURPOSE

Background

Because of the evolution that RET has undergone, and to aid the reader in understanding the principles and applications of RET as they relate to the various studies reviewed in this thesis, a general review of the background, theory and technique of Rational Emotive Therapy will be presented first.

Originally trained in psychoanalytic procedures, Ellis became increasingly dissatisfied with the effectiveness and efficiency of classical analysis. During the early 1950s, in an effort to incorporate the principles of traditional psychoanalytic therapy with his own beliefs about human nature, Ellis created the Rational Emotive system of therapy.

While he continued to believe that Freud was correct in his view that irrational forces were responsible for keeping many people troubled, Ellis did not agree that these forces were unconscious conflicts stemming from early childhood. Rather, Ellis felt that these conflicts were direct results of the patient's present circumstances and choices they were making.

Rational Emotive Therapy is generally considered part of existential-humanistic psychology, as it has an optimistic view of mankind. However, because of its systematic way of thinking, it has also been embraced by behaviorists (Ivey, 1980). The RET approach focuses more on thoughts than on feelings, and contends that people make themselves victims by their own crooked, and irrational thought patterns (Ellis, 1977).

Since its early conception, Rational-Emotive Therapy (RET) has undergone many minor and some major changes, and has adopted various other names, such as Rational Therapy (RT), Semantic Therapy (ST), Cognitive-Behavior Therapy, and Rational Behavior Training (RBT), as well as incorporating a variety of techniques into the therapeutic process.

Theory

Ellis translated his basic beliefs about the irrational nature of people into what he termed the ABCs of Rational Emotive Therapy, where 'A' represents the objective facts, events, and behaviors which an individual encounters, 'B' is the person's belief about A, and 'C' represents the emotional consequence. Most people tend to consider that A causes C, or facts cause consequences. Ellis challenges this equation, contending that it is what people think about an event which determines how they feel, rather than the specific event (Ellis, 1962).

The emphasis of RET is primarily on changing the way one thinks about the behavior rather than on changing the behavior itself. RET teaches that rational beliefs lead to appropriate emotional and behavioral responses, and irrational beliefs contribute to inappropriate or ineffective responses, resulting in increased and possibly ongoing emotional pain.

There are three basic tenets underlying the Rational Emotive theory. The first is that we are born neutral, neither good nor bad. An indivividual's characteristics or actions may be rated, but not the 'self'. There is no way to prove our worth as human beings, and to base our esteem on the ability to achieve, to love, to be approved of, or to be rational is to say that the value of the whole person is defined by the value of only a part of what that person is (Ellis, 1962). Any search for an absolute meaning to life will end in disappointment, as there are no absolutes except those that we create (Ellis, 1973).

The second tenet of RET refers to the biological irrationality of human beings. This irrational pattern begins early in life, and is reinforced by parents and the general society. As social beings, children have a basic need for love and attention, and quickly learn behaviors designed to elicit desired reponses from those around them. They then begin evaluating themselves on the basis of what others say. The degree to which a child's interactions with

parents and significant others encourages the development of such behavior will have a direct bearing on the degree to which the individual develops rational or irrational patterns of thinking.

The third tenet of RET is the assumption that individuals are able to direct and be responsible for their own lives. According to Ellis, although people are almost fully responsible for choosing to be disturbed and dysfunctional, they can be held truly responsible for their troubled lives only if they have been instrumental in creating their personal problems (Ellis, 1973). They cannot be responsible for how others treated them in childhood; they can only be responsible for how they currently construe their childhood. However, in the process, accepting responsibility for one's own problems does not involve blaming oneself.

Ellis further contends that virtually all feelings of emotional disturbance stem from the following three basic irrational views of the world which, in turn, create an extra set of beliefs that lead to irrational, inappropriate and self-defeating behavior.

1. "I must do well"
2. "You must treat me kindly, fairly and considerately"
3. "The universe must make things easy for me"

Technique

RET can, in many ways, be considered psychoeducational,

as it demystifies the counseling process and shares what is important in the process openly with the client. Working as a combination philosopher-teacher-scientist, the RET therapist views the therapeutic relationship primarily as a precondition for effective education.

The task of the RET therapist is to correct thought patterns and rid people of irrational ideas. RET counselors can vary in their use of micro-skills, but Ellis uses a large number of open-ended questions, directives, interpretation, and expression of content, advice and opinion. The listening skills of paraphrasing and reflecting of feeling do not play a prominent role in this therapy.

The therapist demonstrates unconditional acceptance of clients, even while attacking many of the client's irrational beliefs and self-destructive behaviors. Full acceptance of the client as a human does not mean that the therapist must demonstrate warmth or liking toward the client, full tolerance of clients is demonstrated by never evaluating the client as a person.

RET therapists are frequently genuine and open, and directly reveal their own ideas, beliefs, and philosophy of life. Therapists are also willing to reveal some of their own foibles in order to dispute the Client's belief that anyone can be more than human.

The basic therapeutic maneuver in Rational Emotive

therapy is always to be on the alert for irrational thinking and, when it is observed, to work on it directly, concretely, and immediately. Basic to this process of openly disputing illogical beliefs, is confrontation, the direct examination of incongruities and discrepancies in the client's thinking and behavior.

In form, RET is like most other therapies, with one-hour weekly individual sessions or two-hour group sessions being the norm. Designed to be a short-term therapy that can teach the ABCs of emotional problems in one to ten sessions, the pace of the interview is fast, the number of interviews with each client tends to decrease, and there is heavy emphasis on taking ideas derived in the interview out into daily life. In Rational Emotive therapy, it is not enough to help free the client from irrational thinking, a parallel and more positive goal of RET is to equip the client with beliefs that are satisfactory and functional for everyday life.

The Sequence of the RET process generally begins with the counselor educating the client in the basic ABCs of RET. At this point, the emphasis of the therapy is primarily on changing the way a person thinks about the behavior, rather then on changing the behavior itself. The client and therapist work together to raise the client's level of consciousness from a childish, demanding, and absolute style

of thinking to a logical, empirical, and probablistic style of processing information (Prochaska, 1979). Clients are encouraged to maintain the belief that they have the human potential to be as rational as their teacher-therapist.

Once patients have the basic ABCs down, they are most often placed in group therapy to further refine and practice the rational philosophy of living that they are applying to their problems. However, regardless of how much of the therapy is done in a group setting, the focus is not on the relationships between group members but on the rational quality of the thinking, emoting, or behaving that is being revealed by particular individuals.

RET utilizes a variety of cognitive, emotive and behavioral techniques such as homework, which can range from notetaking to using internal sentences during unpleasant events. A client 'works' at home and brings the homework assignment to the next session to be discussed with the counselor. This is the primary RET technique, and its purpose is to have clients actively dispute the illogical premises that lead to irrational beliefs by sharpening their beliefs through higher-level cognition. Homework also frees clients from becoming dependent upon the counselor by fostering independent action.

Rational Emotive Imagery (REI) refers to a type of modification used to reinforce the idea that feelings will

change when cognition is changed. Clients are asked to think of a situation or person that provokes anxiety. They are then required to examine their beliefs about that situation or person, and systematically disputes the irrational belief precipitating the reaction. The focus is then on the change of emotion brought about by disputing the beliefs and changing the self-statement.

Relaxation training within RET is viewed as a positive skill, although not a therapeutic end in itself, as these techniques offer only temporary relief and do not directly undermine the client's irrational belief system. Skill training relates directly to the deficit, and allows the client to have some impact on the specific activating event.

Bibliotherapy refers to the assignment of various readings to achieve greater understanding of thinking ones way out of disturbing situations.

In some cases, Ellis is even willing to rely on other therapy systems to supplement his own therapy when his approach reaches its limits, especially Behavior Therapy approaches. (Hansen, Stenic, Warren, 1982).

Purpose

Raymond DiGuiseppe and Norman Miller (1977) provided a review of the literature assessing the effectiveness of Rational Emotive Therapy. In 1983, a continuation of this research was accomplished by Drs. Terrence McGovern and

Manuel Silverman for outcome studies conducted from 1977 through mid-1981. This thesis is meant as a continuation of these reviews. The purpose of this thesis is two-fold:

1. To assess recent research (1982-1989) on the effectiveness of Rational Emotive Therapy.

2. To gather in a single document, recent Rational Emotive Research to provide a convenient means of reviewing subsequent research.

Limitations

A computer search of psychological abstracts was the primary method used to obtain the research discussed in this thesis. Although this method does not imply a thorough and exhaustive accounting of all RET outcome studies, it is believed that a sufficient percent of the research has been included to offer a fair appraisal.

The source for this research included both professional journals and Ph.D. dissertations. While the professional journals were available for personal, in-depth review, the dissertations were unpublished, and Dissertation Abstracts were utilized. Most of the studies listed in Dissertation Abstracts provided adequate commentary for use in this thesis. However, for those listings that were insufficiently commented upon, copies were obtained through the inter-library loan program at Loyola. Those found to have insufficient information were omitted. The studies represent the period from 1982 through 1989.

Format

Both DiGiuseppe and Miller (1977) and McGovern and Silverman (1983) categorized their reviews under two major headings:

1. Non-comparative studies - outcome studies that do not compare RET with other types of psychotherapy
2. Comparative studies - outcome studies comparing RET with one or more therapies.

This format will be adopted in this thesis as well.

As with the previous reviews, this research will be divided into three sections. The first will be a review of outcome studies that do not compare Rational Emotive Therapy with any other type of treatment. These studies either measure the benefits of RET on a pretreatment, posttreatment basis, or compare the effectiveness of RET with various placebo or no treatment groups. The second section reviews outcome studies that do compare RET with other types of psychotherapy. And, the third section provides a discussion of the studies that are presented, including two headings added by McGovern and Silverman. The first is a discussion of prior research, where the findings of DiGuissepe and Miller, and McGovern and Silverman are reviewed.

The second additional section will review Rational Emotive outcome studies that either combine RET with other therapies or RET studies that are not appropriate for the first two sections.

CHAPTER II

OUTCOME STUDIES

Introduction

DiGiuseppe and Miller's original review included a total of 22 studies. That number more than doubled for McGovern and Silverman, who reviewed 47 studies in their 1983 article. The majority of the studies discussed in both of these reviews supported the efficacy of RET, and provided significant findings that favored the RET position. However, although the RET position was supported by the majority of this research, discussions were included in both articles concerning the shortcomings observed in the studies reviewed, particularly methodological problems that limited the uncritical acceptance of these results.

This chapter includes eighty-nine studies, and will be divided into three sections. The first section will address non-comparative studies of Rational Emotive Therapy, those outcome studies that do not compare RET with other therapeutic methods. The second section will look at comparative studies of RET, those studies comparing RET with another type of therapy. The third section looks at RET studies which do not

fall within the criteria of either the comparative or non-comparative sections.

SECTION 1: NON-COMPARATIVE STUDIES

This section will review those studies which do not compare RET with different methods of psychotherapy. These studies generally employ a pre- and posttest format, and occassionally make use of various control groups.

Where as the DiGiuseppe and Miller research tended to concentrate primarily on the problem of anxiety, the studies reviewed in the McGovern/Silverman research exposed Rational Emotive Therapy to a broader range of clinical problems. The studies conducted since 1982 appear to continue this trend, exposing the RET position to an even broader range of clinical problems, thus providing a more extensive scrutiny of RET.

This section will be divided into several subsections indicating the general problem area addressed by the studies. These are multi-symptomatic, sexual dysfunction, anxiety, and other.

Multi-symptomatic

This section prsents a number of studies in which a variety of presenting complaints were focused upon, rather than one single symptom or problem. Many of the subjects were simply identified, via psychological testing, as being in need of help.

In 1983, Ruth Von Pohl attempted to demonstrate a beginning linkage of social worker's theoretical construct of person-in-environment with the practice principles of Rational Emotive Therapy (RET), as well as assessing the effects of RET with a select group of emotionally disturbed children in day and resident treatment.

A total of eleven subjects participated in this research, six in the treatment design, and five as part of a quasi-experimental research design. Treatment consisted of RET training modules where the trainer met with the subjects three times per week in the classroom for 30-minute sessions over four consecutive weeks. The training sessions consisted of two didactic presentations and ten video-tapped puppet shows. Behavior observers recorded the frequency of the subjects' selected off-task classroom behavior (ie calling out, complaining, getting out of seat, and wasting time).

Results of this study indicated that RET reduced the frequency of three of the four off-task classroom behaviors. It also appeared, based on these findings, that the micro intervention into the person-in-environment construct is a valuable avenue for the desired reduction of situational conflict.

Jean Maria Cirillo (1985) compared the acquisition of Rational Emotive Therapy concepts among adults with different levels of neutoricism when presented with discriminative cues

heavily emphasized and when presented without emphasis on cues.

Ninety-six male and female undergraduates were divided into a higher and lower neuroticism scale, based on results of the Eysenck Personality Inventory. Within each group subjects were randomly assigned to one of four treatment conditions, each consisting of two half-hour long presentations of the basic principles of RET.

The Idea Inventory (1983), and a post-experimental questionnaire, administered to assess what aspects of each treatment had the most phenomenological value to the persons viewing it, were used to assess content acquisition.

Findings indicated that the additional component of clear emphasis upon important cue words did increase the subjects' gain in rational thinking from pretesting to post-testing. Additionally, it was found that subjects in the higher neuroticism group benefited more from emphasis upon important words than did subjects in the lower neuroticism group. A three-way interaction was also found, indicating that subjects with lower levels of neuroticism benefited more from viewing the videotape without emphasis when a female lecturer was used. The variable of initial level of neuroticism alone was not found to have a significant effect on subjects' ability to benefit from the film.

Fosterling (1985) conducted three studies to test one hypothesis of Rational Emotive Therapy concerning the relationship between thoughts and emotions.

Experiment I used an achievement scenario to test the hypothesis that negative emotional reactions following failure are stronger when the individual holds irrational rather than rational beliefs. Seventy-nine male and female undergraduate students were asked to imagine that they "must succeed" (irrational), or "would like to succeed" (rational), on an exam in their major (important condition) or minor (unimportant condition). They were also asked to imagine they failed because of lack of effort or ability. Subjects rated on scales ranging from one to nine how strongly they might experience disappointment, depression, sadness, anger, anxiety or guilt.

Results suggested that negative emotional experiences were more intense for both important and unimportant conditions when failing individuals believed that they "must" succeed rather than they "would like to" succeed. In addition, the affective reactions were stronger when failure occured at the more important condition. These data supported the assumption of RET that irrational cognitions lead to strong and possibly maladaptive negative emotional reactions following failure.

Experiment II was designed to replicate the findings of Experiment I using an observer rather than an actor's perspective, as well as test the hypothesis that rational cognitions trigger a cluster of emotions that are qualitatively different from the affects associated with irrational cognitions. Positive emotional states following success were included in this investigation to explore the influence of the rationality variables on these affects.

Forty-one female and 41 male undergraduates were randomly assigned to two groups ranging in size from 15 to 25. Both groups were presented with two brief stories, one with a successful outcome and one with an unsuccessful outcome. The stories with successful outcomes were followed by a list of 48 words describing positive affective states. The stories with unsuccessful outcomes were followed by a list of 98 descriptions of negative affects. Subjects were asked to read the story and indicate on a seven-point scale how intensely the story character might experience each of the listed affects.

Results of this study suggested, in accordance with the data of Experiment I, that negative emotional states were generally experienced more strongly in the presence of irrational beliefs than in the presence of rational cognitions.

This study lent support to the hypothesis advocated by RET theorists that maladaptive negative emotions were stronger in the presence of irrational cognitions.

Experiment III investigated the cognitive content of adaptive and maladaptive negative emotions.

Sixty-four female and male students were assigned to small groups ranging in size from three to five. Two scenarios were described in the questionnaire, one represented an achievement domain (failing an exam) and the second presented an affiliative scene (girlfriend leaving). It was indicated that the character felt either rage, anger, guilt, regret, depression or sadness about the event. Three questions representing (a) rational vs. irrational evaluation (b) irrational self blame vs. rational self acceptance (c) irrational low frustration tolerance vs. rational high frustration tolerance were then asked. Subjects were asked to respond seperately for each of the cognitions on a ten-point scale.

Results suggested that negative emotional experiences were more intense for both important and unimportant conditions when failing was accompanied by irrational beliefs.

Results of this study provided further evidence for the RET hypothesis that maladaptive negative emotions are associated with irrational cognitions and adaptive affects are associated with rational thoughts.

LaWanna Kaye Gunn (1986) described mood states and psychological symptoms that occur during and after a two-week Rational Behavior Therapy program.

The subjects of this study were forty-three clients of

the RBT Intensive Self-Help Program. Mood and psychological symptom changes were related to the demographic characteristics of the clients. Findings suggest that the mood levels and psychological symptoms improved after the two-week program and remain improved for at least one year after the program. T-test revealed no significant differences for the demographic variables of marital status, sex, age, and educational level of the clients.

Carayannis-Schneider (1987) developed a group treatment program for dually diagnosed adults utilizing a Rational Emotive Therapy approach to social problem solving. A male-female team implemented this program for a period of six weeks (two hours weekly) with each of three groups of dually diagnosed individuals, staggered over time. Program methods included videotape feedback, role play exercises, brief lectures, visual aids, demonstrations and modeling. Homework assignments were given at the end of each session and reviewed at the beginning of the next.

A total of eighteen dually diagnosed adults, six from each of three group home settings, comprised the treatment groups. A slightly modified multiple baseline design was implemented, staggering treatment over time across three groups.

The effects of the treatment approach were evaluated by comparing multiple pre- and posttest results on the Means-

Ends Problem Solving procedure (MEPS), the Optional Thinking Test (OTT), and the Rational Emotive Problem Solving test (REPS). Target problem behaviors outside of the group were monitored throughout the study to evaluate effects of treatment outside of the group. Finally, videotape excerpts were evaluated to assess social interactions within the group.

All three groups made statistically significant improvements in social problem solving, particularly in the utilization of rational emotive arguments. Subjects exhibiting mood disorders benefited the least from treatment. For approximately one-third of the subjects, the benefits of treatment did not endure three months after the program. Generalization to behavior outside of the group was weak due to the short duration of the program and absence of carry over beyond the groups. Spontaneous social interactions within the group increased over time and were found to be very leader-oriented throughout the program.

The author recommended that the program be extended by several weeks, and that concepts and skills be actively brought into the living environment in order to apply and reinforce newly acquired skills.

Jacobsen, Tamkin and Blount (1987) tested the efficacy of Rational Emotive Therapy in psychiatric inpatients. It was hypothesized that RET, in comparison with a control condition of usual hospital therapies, would produce greater

treatment effects, as indicated by change in irrational beliefs, changes in reported symptomatology, and hospital discharge.

Subjects were sixty-one male inpatients in a Veteran's Administration psychiatric hospital (34 experimental and 27 control). All were open-ward patients who received intensive psychiatric treatment including chemotherapy, group therapy and various recreation therapies.

Subjects were first administered the Cornell Index and Idea Inventory. All subjects were given a profile depicting how they had scored on each of the eleven irrational beliefs as compared to the average person. Treatment groups consisted of six to ten members per group. Sessions were held three times weekly for three weeks, for a total of nine sessions. The first two sessions involved a group leader presenting an introduction to Rational Emotive Therapy, the A-B-C model of emotional problems, and Ellis' eleven irrational beliefs. Between sessions, patients were asked to analyze problem situations according to the A-B-C model and to bring these up for discussion in the group.

Toward the latter part of treatment, sessions were less didactic as patients engaged in more group discussion and helped each other to identify irrational beliefs and replace them with more rational ones. At the end of treatment patients again filled out the Idea Inventory. Approximately

two weeks after the end of treatment patients were again administered the Cornel Index. Control subjects were administered testing by a psychology technician blind to the hypotheses of the study, following the same time schedule as the experimental subjects.

General support for the hypothesis that endorsement of irrational beliefs is related to emotional disturbance was provided by the fact that the mean Idea Inventory score for this psychiatric inpatient population was about one standard deviation below the mean found for normals.

Results of this study indicated that patients who attended an RET group changed their self-reported irrational beliefs more than did patients who received other forms of therapy but not RET. The outcome criteria, Cornell Index scores and discharge and readmission rates, produced trends in the hypothesized direction rather than statistically significant results.

The authors felt that this study put RET to a very difficult test in several respects. Since the control subjects were patients undergoing a number of other potent forms of treatment, it was difficult to show that any one form of treatment made a significant difference. Also, in a psychiatric hospital setting, a no-treatment or waiting-list control group would be unethical. Further, patients participating in this study were severely disturbed individuals, for whom any therapeutic change is likely to be

quite difficult. Finally, obtaining follow-up data on patients after discharge was difficult, resulting in a reduced number for follow-up data comparisons.

Based on the results of this study, the authors recommended that future research should use larger samples and find means to increase follow-up participation.

Sexual Dysfunction

Fred Friedberg (1982) relates the case of a 26-year old graduate student with an inhibited orgasmic response, who could ejaculate only during masterbation. The subject's anxiety and depression about this problem were treated with rational restructuring of specific irrational, self-defeating statements. Masturbation was prohibited, and various facilitative coital positions were recommended until coital ejaculation was accomplished.

This treatment, coupled with the development of rational attitudes toward sexual performance lead to a successful change in the subject's behavior.

Ursula Beher-Zimmerman (1982) discussed the case of a 23-year old female with fear of, and hostility toward men which resulted in secondary depression and negative self-evaluation. Using the clinical application of Rational Emotive Therapy, inappropriate behaviors and emotions were changed by uprooting the irrational beliefs (cognitions) that accompany them. This was accomplished mainly by disputation, a series of socratic questions that lead

to insight on the part of the client in the illogical and self-defeating character of her irrational beliefs, thereby motivating her to replace them with more rational ones.

Through the application of these techniques as well as homework assignments, the subject was able to overcome her fear of men and increase her enjoyment of sex.

Usha Ram (1983) discussed the successful use of RET with a 22-year old male's inhibition in heterosexual communication, which was manifested in his experience of anxiety and avoidance of prolonged conversations with females. By focusing on the subject's belief system, RET challenged his beliefs and modified them. The subject was encouraged to use positive self-verbalization techniques, which helped him to achieve rational thinking patterns that reduced the communication apprehension and increased comfort in conversing with females. In addition, this modification also improved the subject's concentration on studies and classroom lectures.

Munjack et al (1984) assigned sixteen males, (19 to 23 years of age), with erectile failure, who were married or living with their partners, to either twelve bi-weekly sessions involving six weeks of Rational Emotive Therapy (RET), or a six week waiting-list control group. Participants were administered two sexual anxiety scales and a rational beliefs inventory. Active treatment administered

by a graduate student in psychology with special training in RET resulted in subjects making significantly more sexual intercourse attempts, reporting significantly reduced sexual anxiety, and having a significantly higher number of successful intercourse attempts than the waiting-list control group.

While six to nine month follow-up revealed that most treated subjects had fallen back toward the pre-test baseline (lower rates of successful intercourse), group means as a whole were still significantly higher than pretreatment intercourse success rates.

Anxiety

Richard Reed (1983) investigated the effect of cognitive presentations of aspects of Rational Emotive Therapy (RET) on performance anxiety. An additional purpose of this research was to study the effect of these RET presentations on altruism. Three active RET presentations, biblio, oral group, and oral cassette tape presentations were designed to test these effects. A control presentation was also administered to control for the Hawthorne Effect.

Three instruments were used to measure the dependent variables. The state portion of the State-Trait Anxiety Inventory was used to measure performance anxiety. It was administered with special instructions that directed the subjects to their respective performance situations. The Helping Disposition Scale was used as a measure of the

individual's altruism, and an RET understanding scale was used to measure the degree to which the subjects understood the RET presentation. All three scales were administered at the same time and in close temporal proximity to the performance situation.

Eighty subjects were selected on the basis of their willingness to participate and their involvement in a performance situation. They were divided into four groups: Biblio, Oral Group, Oral Cassette Tape, and Control, using a randomization procedure. In addition, the researcher was blind to the assignments as they were being made.

Findings indicated that there were no significant differences between treatment groups with regard to performance anxiety or altruism. There was a weak positive relationship between performance anxiety and altruism, regardless of group.

The author concluded that the results of this study call into question the use of self help materials as a treatment for performance anxiety, and suggest that further examination of this issue was required.

Betty Briggs (1986) evaluated the effects of Rational Assertiveness Training provided by intensive group experience on reducing the anxiety and unpleasant physical symptoms that are sometimes experienced by physician assistant students.

Briggs hypothesized that more assertive and clinical-

ly knowledgeable physician assistant students would be less anxious, think more rationally, possess more internal self control, and experience fewer undesirable physical discomforts.

The aim of this study was to decrease anxiety and increase assertiveness, as well as provide a better understanding of anxiety, especially state (transitory) anxiety during the actual performance of a task through Rational Assertiveness Training. It was further hypothesized that decreased anxiety improved interpersonal relationships and patient care, and enhanced job satisfaction for physician assistants.

These hypotheses were tested with five self-report tests, a clinical performance rating scale and two questionnaires. Multivariate analysis of variance was used to evaluate the five self-report tests. Differences in the clinical performance scores were evaluated using the two-sided t-test. Significant differences at the .05 level were found in assertiveness, physical discomfort, and the clinical performance evaluation scores.

These findings suggest that the treatment group was more aware of being assertive during the clinical experience, had fewer physical discomforts, and had a more positive expectation of their clinical performance evaluation. The author also suggested that implementing assertiveness training in the physician assistant curriculum over a longer

period of time may significantly improve clinical interpersonal relationships. Therefore, decreased anxiety and increased assertiveness in physician assistants would result in better patient care.

Gitlin and Tucker (1988) examined correlations among irrationality, ability to discriminate rationality, and trait anxiety. One hundred and fifty-two college students completed the State-Trait Anxiety Inventory to measure trait anxiety, and the Irrational Beliefs Test with standard instructions to estimate subjects' rationality. The Irrational Beliefs Test with instructions to mark the most rational responses was also administered to test ability to discriminate rationality. A significant positive correlation was found between irrationality and trait anxiety and a significant but low correlation was found between irrationality and discrimination ability. There was no significant correlation between discrimination ability and trait anxiety.

Gitlin and Tucker concluded that gains reported from Rational Emotive Therapy such as increased rationality and anxiety reduction, may have been primarily due to factors other than teaching clients to discriminate rational from irrational beliefs. It was suggested that the strong pressure applied in RET not only to discriminate between rational and irrational beliefs, but to consciously dispute

irrational beliefs and act deliberately on rational ones was the primary impetus for change.

Based on the results of this study, the authors recommended that more empirical research was needed to determine which aspects of RET serve to structure change, and which serve to impel change.

Other

Maxwell and Wilkerson (1982) investigated the effects of group Rational Emotive Therapy in promoting rational thinking and self-enhancing emotions among twenty-four female, caucasian undergraduate volunteers. The purpose of this study was to determine the effect of teaching rational therapy principles and techniques to college students in group settings. Each subject was administered the Sixteen Personality Factor Questionnaire as a pre- and posttest measurement. During a ten-week course, class members were lead through a cognitive emotional re-education experience based on Maltsby's structured format for rational self-analysis. The correlated t-test was computed to assess the difference in pre- and posttest treatment scores for each of the five factors derived from the 16PF.

From this study, Maxwell and Wilkerson concluded that the group Rational Emotive Program increased emotional stability, serenity, the ability to tolerate frustration, and self-confidence in problem-solving and dealing with everyday challenges of life. Also, treatment significantly

reduced anxiety regarding achievement. Although levels of tension and frustration tolerance were not significantly decreased, all of the five factors demonstrated movement in the direction of greater emotional health.

The researchers suggested that the increased sense of confidence represented by post-treatment scores suggests that anxiety may be created not only by the anticipation of stressful situations, but by the absence of a belief that one has a choice about the emotional effect the situation has upon him/herself. Belief in the ability to select one's emotional destiny is apparently inimical to anxiety.

In 1982, Carole Lee-Gilmore attempted to demonstrate that Rational Assertiveness Training in the form of an ongoing intensive group experience may help to facilitate change and to lessen difficulties of assertive interpersonal relations in nursing practice.

Using five self-report tests, The Assertion Inventory, Rational Behavior Inventory, Internal-External Locus of Control Scale, State-Trait Anxiety Inventory, Wahler Physical Symptoms Inventory, and the Rational Assertiveness Training Questionnaire, Lee-Gilmore tested the assumption that individuals who are more assertive are also less anxious, possess more internal self-control, think more rationally, and experience fewer undesirable physical symptoms on nurses.

A ten-week (25-hour) Rational Assertiveness Training

Program utilizing a comprehensive and intensive group model based on Ellis' Rational Emotive Therapy was given to forty-two nurses in the treatment group, following the pretesting, the thirty-eight nurses in the control group were placed on a waiting list, and told that their training would be delayed. At the end of the treatment group's training, both groups came together for the first posttesting, and three months later, both the treatment group (N=30), and the control group (N=11), received the follow-up second posttesting.

The trained treatment group showed a statistically significant improvement on every assessment instrument on posttesting and second posttesting as compared with pretesting scores. The control group of nurses remained essentially the same on every assessment instrument, on first and second posttesting measures as compared with pretesting scores.

The author concluded that this data fully supported the acceptance of the research hypotheses that the trained treatment group, in comparison to the waiting list control group, would, from pre- to posttesting, and from pre- to second posttesting, show the following statistically significant changes: 1) A decrease in the mean discomfort scores the Discomfort Scale of the Assertion Inventory; 2) a decrease in the mean response probability scores on the Response Probability Scale of the Assertion Inventory; 3) an

increase in the mean rationality scores on the Rational Behavior Inventory; 4) a decrease in the mean locus of control scores on the Internal-External Locus of Control Scale; 5) a decrease in the mean state scores on the State Scale of the of the State-Trait Anxiety Inventory; 6) a decrease in the mean trait scores on the Trait Scale of the State-Trait Anxiety Inventory; and 7) a decrease in the mean physical symptoms scores on the Wahler Physical Symptoms Inventory.

Bowin (1983) assessed whether a three-week course presentation of Rational Emotive Therapy would be effective in reducing the stress of lower-division college students. The seventy-two training undergraduates were enrolled in four seperate courses in human behavior over a period of two quarters. Therapy totalled two sessions each week, lasting about two hours per session. The fundamental techniques of the therapy were presented in a lecture format using material from Ellis' Guide to Rational Living. The control group, consisting of 39 upper division college students, were enrolled in three seperate courses in strategy and policy over the similar period of two quarters.

Both control and treatment groups were given as a pretest and posttest, three instruments from the Objective Analytic Anxiety Battery. The test were scored using the scoring key from the Handbook of the Objective Analytic Anxiety Battery. and the data analyzed by student's t-test.

For seventy-two students exposed to the material on Rational Emotive Therapy, there was some reduction in the level of stress from the pretest to the posttest. The thirty-nine control students who were not exposed to the therapeutic material did not show significant change in the level of stress from pre- to posttest. Based on these results, the author concluded that the effect of the therapeutic presentation on reducing the level of student's stress was not conclusive.

Bowin goes on to point out several of the limitations of this study, such as the fact that only a short time was available for presentation of the technique. The qualifications of a lay person in presenting the material was also questioned, as was the use of the incomplete battery which probably lessened the validity of responses.

The author concludes that, although this study does suggest that a short course in Rational Therapy may help reduce the level of stress for a selected sample of college students, the need for replication was evident. He emphasized that future studies must utilize a comprehensive set of measuring instruments, a qualified therapist, skilled in techniques, and a larger representative sample.

Buckley (1983) developed a Rational Emotive Affective Education Program (REAE) for a group of socially and emotionally disturbed (SED) public school students, grades 2 through 8, in special education classes. A school psycholo-

gist presented weekly classroom lessons for six months and consulted with the teachers about the program and students' progress.

Three dependent variables consisted of two behavior rating scales, one completed by the students and one by their teachers, for the Behavior Rating Profile (1978), and the Piers Harris Children's Self-Concept Scale (1969).

Control groups were students from regular classes in the same buildings as the REAE students, as well as SED students from districts similar to the one with the REAE program. Thirty-six members were matched for sex and age for the three groups.

Repeated measures ANOVA for the groups revealed no significant change from Fall to Spring testings for any group or age subgroup on variables. The only measure to differentiate regular from SED students was the teacher rating. ANCOVA using Fall scores as covariates for Spring test scores revealed no significant differences between any group or age subgroup on any variable.

The author concluded that the efficacy of the REAE program cannot be supported by these analyses. However, the data does suggest a more positive effect for younger children.

Christopher Thurman (1983) randomly assigned twenty-two university students who were classified as Type A, via the Jenkins Activity Survey, to either a Rational Emotive

or a no-treatment control group. Six treatment sessions were structured around four major components of Type A patterns, time urgency, competitiveness, hostility and anger, and achievement striving.

Subjects were pre- and posttested using a battery of measures including the Irrational Beliefs Test and the State-Trait Anxiety Inventory. Results indicated that self-reported levels of the Type A behaviors of speed and impatience, and competitive behaviors, as well as irrational beliefs concerning high self-expectations, anxious overconcern about the future, and perfectionism were significantly reduced and maintained at a two-month follow-up, compared to controls. Results also supported the efficacy of cognitive restructuring methods in the modification of Type A behavior.

Solomon and Ray (1984) designed a program to reduce recidivism among ninety-four adults convicted of shoplifting base on a Rational Emotive Therapy approach. After arrest and conviction, subjects were referred to the program by the local courts as a condition of probation. Participants completed a battery of psychological tests including the MMPI, the Irrational Beliefs Test and a self-concept measure prior to the corrective group experience.

Subjects (mean age 25.6 years) participated in an intensive eight-hour psycho-educational group counseling experience that focused on irrational beliefs about shoplifting

identified by a 20-item irrational beliefs scale. Results show that subjects' belief in avoiding difficulties and in being unable to control decisions was significantly related to lower educational attainment. During the one-year experience with the program, only one repeat offense occured, and the subject involved in this incident was later diagnosed as a kleptomaniac.

The authors concluded that the moderate negative correlations found between level of education and irrational beliefs suggested that, as years of formal education increase, shoplifters as a group were more likely to confront as opposed to avoid their problems. Shoplifters with higher livels of education seemed to endorse an internal locus of control perspective.

Based on these findings, the authors concluded that the A-B-C model and the RET approach were helpful in overcoming shoplifting behavior, and they suggested that the use of locus of control measure with samples of shoplifters may clarify the issue further.

In 1984, Albert Ellis presented a case of an abrasive 25-year old female college dropout who had been seen in individual therapy for two years with poor results.

By employing a number of Rational Emotive methods, the client went back to college and graduated, obtained and worked steadily at a job, and improved her social life. Specifically, Ellis showed the client that she

would continue to suffer unless she worked hard at changing her ideas. He employed modeling via subject's attendance at the therapist's public demonstrations of RET and regularly used RET problem-solving methods. While theoretical discussions had little effect, practical planning to get more of what she wanted in life were quite effective and, combined with unconditional acceptance, homework assignments, strong reinforcements and behavioral rehearsal, the subject left therapy considering herself "cured". Although Ellis felt she had a ways to go in relating intimately to others, he did agree that there appeared to be considerable improvement.

Omizo, Cubberly, and Omizo (1985) examined the effects of Rational Emotive Education (REE) counseling group sessions on the self-concept and locus of control of sixty leanring disabled (LD) children, age eight to eleven. Subjects were randomly assigned to experimental and control conditions. The goals of the REE sessions included the acquisition of problem-solving skills and the development of rational coping strategies. The experimental group leader was trained in REE, and sessions, each lasting approximately one hour, were held twice weekly for twelve weeks. Subjects were administered the Dimensions of Self-Control -- Form E, and the Nowicki-Strickland Locus of Control Scale for children before and after treatment. MANOVA revealed no significant differences on pretest self-concept and locus of control; posttest MANOVA indicated significant differences

between experimental and control groups. Univariate and discriminant analysis revealed several dimensions of self-concept and locus of control measure to be valid discriminators. It was concluded that the REE intervention appeared to be beneficial in both enhancing certain aspects of self-concept and encouraging a more internal locus of control orientation in LD students.

Caraway and Hayslip (1985) evaluated the impact of teaching Rational Behavior Therapy (RBT) to a group of retirees. Treatment consisted of the teaching of RBT principles, the assignment of homework and, specifically, the reinforcement of group members by the group leader and by one another, when they verbalized rational thoughts about their behaviors. Rational Behavior Therapy was also evaluated regarding the effects of placebogenic factors, (e.g. expectancy for improvement), utilizing a neutral discussion control group which focused on the meaning of retirement, and attempted to share everyday problems and explore solutions focusing on the interpretation of one's role at present. No mention was made of RBT, and no principles or RBT were taught.

At the one week posttest, the RBT group tended to become more worrisome and less rational regarding frustration, they were, nevertheless, more willing to make independent decisions and accept the consequences of these decisions. This group also became more willing to accept work on

unpleasant tasks.

Follow-up data, obtained six week later, tentatively suggested that, while the RBT group maintained its worrisome mood, it was in fact, more likely to desire perfection. This gain, however, was counter balanced by a trend toward drops in the willingness to make independent decisions, lessened self-sufficiency and less overall rationality.

Results of this study suggested that RBT can be a potentially valuable means by which to deal with the self-depreciating judgements made by elderly persons.

In 1986, Lo-Fuang attempted to determine the effects of a Rational Emotive Education (REE) program on learning disabled (LD) adolescents' self-concept as measured by the Dimensions of Self-Concept, and perception of locus of control orientation, as measured by the Rotter Internal-External Scale. Sixty LD adolescents were randomly assigned to experimental and control groups. Subjects in the experimental group received two sixty-minute REE lessons every week for six consecutive weeks. Subjects in the control group watched National Geographic films as a group. The REE group sessions were conducted by two experienced facilitators trained in REE. Multivariate analysis of variance (MANOVA) revealed significant differences on the posttest self-concept and locus of control variables. Following the significant MANOVA differences, post hoc univariate F and discriminant analysis revealed three measures

of self-concept and locus of control measure to be valid discriminators. It was determined that the REE program used was a promising intervention strategy for helping the LD population enhance some aspects of self-concept and develop a more internal locus of control orientation.

Lynn Pauley (1986) presented a case study of an obese female with whom Rational Emotive Therapy was used as the treatment model. The goals of the model were to expose and alter the subject's irrational beliefs.

By employing RET techniques, the subject was able to identify her irrational beliefs about food and its significance in her life. Although this case demonstrated that RET may be a useful means of treating obesity, the author recommended that further studies were needed for more significant proof.

Leaf, Gross, Todres, Marcus and Bradford (1986) designed a series of three subsequent studies to explore the limits of the conditions under which instruction about psychotherapy can produce 'therapeutic' benefits.

One major goal of the first study was to eliminate 'relationship factors' from the training situation. The authors studied the effect of education about RET on a situational, non-clinical emotional problem universal among the students participating in this study. They measured situation-specific anger, self-perceived coping ability, and 'rationality' with additional questionnaires, and com-

pared these to a measure of demoralization.

Eighty-thee male and female undergraduate students, enrolled in the first author's abnormal psychology class were recruited as subjects. Questionnaires included the 12-Best-Item form of the General Health Questionnaire (1972), as well as a six-item set of descriptions of anger-provoking situations. Informal discussions with students and faculty led to identification of a numbr of common irritating situations, and test describing these was written after discussion with these informants. Also, a ten-item Self-Report Scale of Rationality (1973) was administered.

Pre- and post-training questionnaires were answered eight weeks apart. To provide anonimity, each student chose and remembered a pseudonym, which was used to label each answer sheet. Following the examination, four lecture-workshop demonstrations were given on RET approaches for dealing with anger (Ellis 1977). After each of these lectures, students were required to fill out and turn in weekly homework based on some provocation they had experienced. Subjects were also required to submit a term paper on the RET self-counseling project, which comprised 25% of their course grade.

In a second study, an experimental comparison of outcome expectations that emphasized either of two different specific aims of RET, immediate emotional relief, or immu-

nization against future distress, were carried out. After randomly assigning students to instructional conditions were trained in small groups, simulating RET group therapy.

A third study dealt with personal problems, but also compared pre- to post-training changes in a "treated" group with those in two groups in the same class who, instead of undergoing self-counseling training, read and wrote review papers about studies of positive outcomes after RET. A second, untreated group, comprised of students enrolled in other classes of abnormal psychology, provided a control for possible within-class-sample selection biases and contrast effects that might have differntially affected the treated group and their classmate controls.

Questionnaire scores improved after RET self-counseling training for all three trained groups, but did not improve for the two comparison groups. The authors concluded that, because mental health only improved when students actually practiced self-counseling procedures, the improvements must have required that practice, rather than simply learning about abnormal psychology or RET, or simply having RET self-counseling training available to them.

Based on the results of these studies, the authors agreed that education about psychotherapy can produce both specific and general 'therapeutic' benefits, and that positive outcomes are not relted to specific features of the

training process. They further concluded that initial demoralization does predict the magnitude of subsequent improvement in mental health. They hypothized that 'non-specific', placebo-like processes related to changes in self-acceptance are the principle cause of the large 'therapeutic' effects observed. The authors also felt that the simplicity with which these large effects are produced, and the fact that they are a consequence of procedures carried out for educational purposes, suggests that 'mental health services' aimed at producing emotional relief from situational distress can be efficiently and cost-effectively delivered without traditional service providers or service settings. They further concluded that more research on the effects of evocative, homework-oriented, instruction about psychotherapy was warranted, both to improve conceptual paradigms about placebo effects, and to determine the patterns of relationships between educational and therapeutic processes.

Omizo, Lo-Fuang, and Williams (1986) studied the effects of participation in a Rational Emotive Education (REE) program on the self-concept and locus of control of sixty learning disabled adolescents, grades 9 through 12. Subjects were administered the Dimensions of Self-Concepts (1977, 1978) and the Internal-External Scale (1966) one week pretest and one week posttest. Subjects assigned to the experimental group met for one hour, twice a week for six

weeks. After treatment, experimental subjects demonstrated significantly higher levels of aspiration, leadership and initiative scores, and significantly lower anxiety scores than did controls. It was suggested, based on these results, that REE may be a promising intervention strategy for this population.

Bohlmann (1986) conducted a study that attempted to raise the self-acceptance and self-actualization levels of runners. The treatment utilized was bibliotherapy-based Rational Emotive Therapy principles. The author also noted how this study could contribute some clarification for the confusion noted in the field of self-concept literature at that time.

The method consisted of recruiting runners from a local running club and then screening them in order to identify the runners who were low in self-acceptance and comparatively high in self-esteem. Fifty runners were included in the study. Subjects in the experimental group were provided with twelve bibliotherapy lessons over a period of six weeks. Posttesting was done using the Personal Orientation Inventory (1966) and the Self-Esteem Scale (1965).

Comparisons were made between the experimental and control groups on the criterion variables of the levels of self-esteem, self-acceptance, and self-actualization. It was found that the experimental group did make a significant

gain in their level of self-acceptance. The other comparisons were not found to be significant.

That some runners could be helped to achieve a higher level of self acceptance was seen as a valuable piece of data for both runners and researchers. The use of RET in a bibliotherapeutic intervention was supported, and some clarification of terms was noted.

In 1987, Marilyn Oldman, examined the emotional distress that some middle-aged women experience about looking older in American society and the application of Rational Emotive Therapy (RET) as an effective treatment approach to this problem.

This study was carried out through the use of a survey, and the findings were based on questionnaires administered to fifty-two women during two, one-hour interviews.

The questionnaire was anonymous and consisted of three preliminary questions that were demographical in nature concerning the age, marital status and educational level of the repondents. The subject matter consisted of questions about personal feelings, societal attitudes, fear of loss of sexual attractiveness and the relationship between older looking appearance and employee opportunities. The fourth scale was the researcher's target area for exploration.

The study sample consisted of married and single,

white middle-aged, middle-class women with the age range of forty to fifty-five years of age. Their educational levels ranged from high school to graduate work, and they were all learning or relearning business skills in order to seek out-of-the-home employment in the future. As a follow-up to the questionnaire, and based on the findings of this study, the researcher conducted an in-depth individual interview with two appropriate women volunteers to further explore women's feelings on this issue in a more personal way.

The author concluded that the findings of her study confirmed that women were experiencing considerable distress about looking older, particularly when they contemplated seeking employment. Also, single women, whether divorced or widowed, expressed significantly more distress in all four scales that did the married women.

Farley (1987) describes Rational Behavior Problem Solving, a comprehensive cognitive behavioral program designed to facilitate employability of persons with disabilities. This Rational Behavior Problem Solving program was comprised of four components. The first component focused on self-awareness and self-monitoring. Participants were taught how to discriminate between five major classes of behavior responses: Perceiving, thinking, feeling, and intending to act. They learned to identify, label and describe their responses in specific career situations

Behavior assessment focused on self-evaluation and facilitated the participants in determining if they were responding in a useful and productive manner. The three major assessment areas persented were; 1) participants were taught to examine the characteristics of their behavior response; 2) participants were taught to examine the actual or possible effect their responsehad on their overall behaving; 3) participants were taught to examine the possible or actual consequences of their response.

Behavior goals facilitated participants in examining alternate ways of behaving and choosing an alternate, more effective way to respond. Participants were also taught to verbalize and describe optional responses which became behavioral goals or preferred ways of behaving.

Behavioral Restructuring taught participants to develop a self-directed program using self-management techniques. The program was designed to help them translate their behavior goals into actual behavior and fully develop the new behavior response pattern.

Participants learned to set behavior goals and restructure behavior in a self-directed program using self-management techniques in ten specific problem-solving steps.

The author concluded that Rational Behavior Problem Solving training appeared to be a promising intervention for promoting the career development of persons with disabilities. It was recommended that the program be intro

duced in schools, mental health settings, government agencies, healthcare centers, etc. Farley also encouraged research assessing its effectiveness with students, healthcare patients, government agency clients, and others, when taught by counselors, psychologists, social workers, teachers, etc.

Ellis (1987) attempted to demonstrate integrative developments in Rational Emotive Therapy by presenting the case of a thirty-year old woman who presented with hypochondria, panic, obsessive compulsions, depression, and procrastination.

Rational Emotive Therapy was used to attack identified irrational beliefs through direct challenge, rational coping statements, cognitive distraction, psychoeducation, shame-attacking exercises, reinforcement on homework, and social skill training. Results indicated that treatment in cognitive, behavioral, and emotional dimensions did effect symptom reduction.

Ellis concluded that, although RET was initially a pioneering integrative school of psychotherapy, it had become increasingly more so in the last decade. Its theory had incorporated additional cognitive, emotive and behavioral aspects, and its practice, integrated with its theory, had become increasingly ecclectic. Although still upholding the hypothesis that cognition is a powerful element in creating and disspelling emotional and activity-directed

disturbance, it also uses powerful emotive and behavioral techniques to effect philosophic change.

In 1989, Maes argued that interventions aimed at the reduction of emotional distress in chronic patients should try to influence the patients' perception of their illness and/or treatment, and provide them with effective coping strategies. Using R. S. Lazarus' (1966) model of stress as a frame of reference, two studies are presented in which coronary heart disease patients and asthmatic patients were offered a form of cognitive group treatment based on Rational Emotive Therapy, designed to reduce emotional distress (anxiety, depression, or anger), and influence health behavior outcomes.

Both intervention programs consisted of eight, two to three-hour group sessions in which eight patients and their partners took part. During the first session, the A-B-C-D scheme was introduced to the patients by a health psychologist. The following sessions were devoted to a specific topic related to the respective disease. In both groups, the topics were selected on the basis of prior need assessment study.

Nineteen asthmatic patients were referred by two lung specialists. All were adults with comparable lung functions, number of attacks, and high medication consumption. Patients were assigned to the experimental or control condition respectively. The experimental group was offered the program

in addition to standard medical care. The control group received standard medical care only. The following variables were measured both before and two weeks after the intervention: 1) Cognitive attributes toward the illness stored in long-term memory, especially optimism, locus of control, and shame or stigma measured by a Dutch adaptation of the Respiratory Illness Opinion Survey, 2) coping behavior, measured by the Asthma Coping Questionnaire, and 3) Emotional distress, especially, anxiety, depression and anger. The cognitive group program had an impressive effect on the reduction of emotional distress (anxiety, depression and anger) in asthmatic patients. In addition, this effect was paralleled by a specific change in coping the asthma in everyday life.

Fifty-five patients with coronary heart disease were referred by two rehabilitation physicians one month after the first myocardial infarction or coronary bypass operation. All patients were adults (51 males and 41 females), and all were younger than sixty-five years of age. Patients were randomly assigned to either an experimental group (N=33), or a control group (N=22).

Patients in the experimental group received the cognitive group intervention program in addition to standard medical care, including exercise. The control group received standard medical care including physical exercise only. Patients in the experimental group were offered the program

in groups of five to eight, and their partners, each subgroup receiving eight weekly two-hour group sessions.

The following variables were measured in the control and experimental groups both before and two weeks after the intervention: 1) Coping behavior, measured by the Coping Questionnaire for Heart Patients, and 2) emotional distress variables (state and trait anxiety, depression, state and trait anger).

The cognitive intervention program enabled patients to express and communicate their worries about heart disease and reduced feelings of depression. However, it failed to bring about changes in other coping strategies, and was ineffective in reducing anxiety and anger in patients with coronary heart disease.

The author concluded that a cognitive intervention strategy based on Rational Emotive Therapy did reduce emotional distress in patients with asthma and coronary heart disease. The effects of the intervention in asthmatic patients were more impressive than the effects with coronary heart disease patients.

Maes pointed out that the reason for this may have been that the patients with coronary heart disease were receiving an established form of rehabilitation. The asthma patients lacked such a form of support, which may have illustrated the need to establish a psychological form of pulmonary rehabilitation.

This study did not measure irrational beliefs and, therefore, did not reveal whether the observed treatment effects were paralleled by changes in beliefs. The author also commented that some forms of emotional distress may not be influenced by cognitive interventions. There are various sources of emotional distress, and cognitive procedures are probably far less powerful in influencing autonomous than cognitive processes. These experiments were no proof that a cognitive approach only may reduce emotional distress in chronic patients, even when the emotional distress may be cognitively induced. More traditional behavior therapy might do the job as well and even physical exercise proved to have a reducing effect on anxiety and depression.

Results of this study indicated that, although cognitive therapy proved to be effective in the treatment of emotional distress in chronic patients, there was a danger in defining alternative treatment strategies as the "enemy". As there was no single (cognitive) cause for emotional distress in chronic patients, there was no single cognitive form of effective treatment.

It was recommended that future studies try to identify the nature of specific forms of distress in different groups of patients and compare the relative effects of cognitive and non-cognitive intervention strategies.

Woods (1987) conducted a series of stress-management

workshops in a Rational Emotive Therapy (RET) format for forty-nine employees of a large corporation. Measures were obtained on the dependent variables of Type A behavior, anxiety, anger, depression, assertiveness, and physical illness symptoms, and the independent variable of irrational beliefs before the progam began, and again three to four months following completion.

Workshops were scheduled for one and one-half hours during the regular workday once a week for four weeks. Department members were assigned to a workshop according to their job level. In all, five groups participated in seperate four-week workshops. The size of the groups varied fromeight to fourteen. Sessions were conducted in lecture/discussion format. Both lecture and discussion were RET-oriented, and focused almost exclusively on basic RET concepts and their application to the reduction of stress in general, and to the reduction of anxiety, anger, guilt, and depression in particular.

This report supports previous findings regarding the effectiveness of an RET or closely related therapeutic approach in producing desirable changes for a number of different emotional and behavioral problems. Major changes were obtained on all dependent measures supporting previous work on the usefulness of the RET approach in reducing various types of distress. These changes were shown to be related to changes in irrational beliefs.

The modifications obtained with Type A behavior resulting from a concentrated focus on changing cognitive variables supported previous research. Since this was a correlational study, it could not be argued that causal relationships had been demonstrated.

Woods discussed the absence of a control group, citing moral, legal and ethical constraints against making half the participants a non-treatment control group. He also discussed the possiblity of the Hawthorne Effect or lying, concluding that the option for annonymity, difficulty of the tests, and the potential for backfire limited the probability of this issue.

Ellis (1987) argued that people who are bored and depressed tended to have both discomfort anxiety and low frustration tolerance (LFT). Usually, interacting with the LFT are sever feelings of inadequacy that lead to the adoption of a boring, safe life with self-deprecations for being boring and worthless. Ellis presented the case of a twenty-eight year old woman to illustrate how LFT and self-downing can interact to create, exacerbate and maintain a boring life. The application of several cognitive, emotive and behavioral techniques of RET were used to combat the bordom, anxiety and depression, resulting in a reduction in symptoms.

SECTION 2: COMPARATIVE STUDIES

This section will review studies that compare Rational

Emotive Therapy with other psychotherapies. These studies usually tend to include a control group, and have been divided into two parts: Those studies comparing RET with a single other therapy, and those studies comparing RET with more than one therapy method.

Part I: Single Therapy Comparisons

Recreational Educational Programming

In 1982, D. Meyer investigated the effects of Rational Emotive Group Therapy on anxiety and self-esteem of learning-disabled children. One hundred and ten learning-disabled children (ages 8-13 years) were assigned to one of three experimental conditions, Rational Emotive Therapy (N-32), Recreational Educational Programming (N=31), or no-contact control (N=47). Within the two experimental treatments groups of seven to nine members, similar in chronological ages, were formed. The Rational Emotive groups received therapy based on Rational Emotive Theory. The Recreational Educational Programming groups engaged in such activities as arts and crafts, table-top games, gym activities, sports, and hiking. The no-contact group did not meet. A total of nine sessions over a ten-week period were conducted with the children who were in the Rational Emotive Recreational Education groups.

Pre- and posttest measures of self-esteem (SEI) and anxiety (TASC) were obtained, and the data were studied statistically by analysis. Results indicated significantly

lower mean anxiety scores for the Rational Emotive Therapy group after treatment. No significant difference was obtained in mean self-esteem estimates.

The author concluded that Rational Emotive Group Therapy showed potential for use in reducing anxiety in learning disabled children, and that this study supported the findings of earlier research that Rational Emotive Therapy is highly effective in reducing anxiety. However, it was suggested that self-esteem may be less susceptible to change over relatively short-term therapy periods. Recommendations for further research were offered.

Relaxation Training

In 1983, Mark Jasnow compared the effectiveness of Rational Emotive Therapy (RET) and Relaxation Training (RT) on anxiety reduction in sixth grade students. The effects of initial level of anxiety and time treatment duration were also investigated.

Ninety-five sixth grade students served as subjects for this study. Subjects were classified as high, medium, or low anxiety, based on their pre-treatment trait anxiety scores, and were randomly assigned to either Relaxation Training groups (N=36) or Rational Emotive Therapy groups (N=37). A third group served as a control (N=22). Five dependent measures were used, including two measures of content acquisition, two measures of emotional adjustment, and a parent rating scale. All measures were administered

pretreatment and following the tenth and fifteenth treatment sessions. Two experimenters individually conducted the treatment groups for fifteen, thirty-minute sessions over an eight week period.

The data were analyzed by analysis of covariance repeated measures design. Tukey (b) Multiple Comparisons Tests were used to analyze differences among means.

The results of this study indicated that the principles of RET and RT can be learned by sixth grade subjects. Both treatments were more effective than the control group in reducing neuroticism and anxiety. RET was more effective than RT in reducing neuroticism, however, there was no difference between the two treatment groups in reducing trait anxiety. The beneficial effect of time was generally supported.

Professional Support Group

Terry Lee Wilson (1983) examined the differences in measured anxiety of teachers who received instruction in two stress management techniques, Rational Emotive Therapy and professional support group, and those who did not. From a population of 1,843, elementary and middle school teachers in a major midwestern designated urban public school system, 250 were randomly selected to receive a letter inviting them to participate in this study. Twenty-eight were elected to participate and were randomly assigned to one the three groups. Pretest and posttest anxiety

measures, A-Trait Scale, the State-Trait Anxiety Inventory and the Taylor Manifest Anxiety scale were obtained for the three groups. To control for the contribution of recent life events to measured anxiety, the schedule of recent experience was administered at pretest. Between the administration of the pretest and post-test, two groups were exposed to and practiced the principles of Rational Emotive Therapy and Professional Support Group, respectively. The third group served as a control with no exposure to treatment.

Data from 27 subjects were analyzed and revealed no significant difference between the group centroids of the two anxiety pressure in the population.

Peer Group Counseling

Lyons (1983) investigated the effects of peer group counseling on adolescent males in a normal high school setting. A total of ninety-six subjects were equally divided into four peer groups led by peer counselors trained in the Human Relations method, four peer groups led by peer counselors trained in the Rational Emotive method, and a control group consisting of subjects in attendance of a health education class. Each treatment group consisted of eight subjects (10th grade level), two peer counselors (12th grade level), and a professional guidance counselor.

Both the Human Relations (HR) and the Rational Emotive (RE) peer counselors received twenty-two hours of

training in the respective counseling methods. All peer counselors were pre- and posttested for their level of either HR or RE knowledge to ensure that they had been trained to acceptable criteria. In examining the test scores at the posttest, it was found that both HR and RE peer counselors had acquired the basic concepts of the respective counseling theories and could apply them to client problems.

The trained peer counselors then conducted their respective groups for a total of eighteen hours, meeting twice a week. At each group session, a member from the school's Guidance Department attended and rated peer counselor's ability to lead the group from either a Human Relations or Rational Emotive perspective.

A 3 X 2 analysis of variance was designed using pre- vs. postscores was used to test the four hypotheses made in this study. The four hypotheses that subjects in either the HR or RE treatments would achieve a significantly greater level of self-esteem, a more internal locus of control, better class behavior and a more enhanced grade point average when compared to the no-treatment control condition, were not supported.

It was recommended that future research be directed toward exploring alternative means for the purposes of peer group treatment enhancement. Matching peer counselor personality variables with the counselor training received,

examining alternative counselor training models, controlling for subject motivation, and contrasting peer counseling with other mental health models of primary prevention were offered as suggestions for future research in the school setting.

Gestalt Therapy

C. Conoley, J. Conoley, and J. McConnell (1983) examined the effects of the ABCs of Rational Emotive Therapy (RET), the empty chair technique of Gestalt Therapy, and a reflective listening control condition in reducing anger for sixty-one female undergraduates. The repressor-sensitizer response to threat was investigated as an s characteristic that was hypothesized to influence the effectiveness of the treatment conditions. Both treatment techniques reduced blood pressure and lowered feeling questionnaire scores significantly more than the control condition. The repressor-sensitizer measure failed to differentiate between the effectiveness of either treatment.

Transactional Analysis

In 1984, Clint Voelm studied the efficacy of teaching Rational Emotive Education to acting-out and socially withdrawn adolescents. Thirty-eight acting-out and 42 socially withdrawn adolescents from an intermediate school comprised the final number of subjects who were randomly assigned to, and completed one of three treatment groups: REE, Transactional Analysis, and no-treatment control. The treatment

programs consisted of ten weekly 45-minute sessions that were held at the school. The Burks' Behavior Rating Scales, Children's Survey of Rational Concept, and the Piers-Harris Children's Self Concept Scale were administered before and after the ten week program, and 30 days later during a follow-up period. The Comprehensive Test of Basic Skills was administered before the treatment program and once again during the follow-up period.

The acting-out adolescents who received REE obtained a significant increase in their ability to comprehend the theoretical con cepts of REE. They were also described by their classroom teachers as being significantly less aggressive, less resistant, having more impuse and anger control, being more socially conforming, and feeling less persecuted. However, these significant levels were not maintained at the 30 day follow-up period.

The socially withdrawn adolescents who recieved REE also obtained a significant increase in their ability to comprehend the theoretical concepts of REE. These same adolescents obtained significant increases in their self-esteem; they felt better about their outward behaviors, physical appearance and attributes, intellect and school status, anxiety level, popularity, and personal happiness and satisfaction. Additionally, these adolescents were behaviorally described they their classroom teachers as being significantly less anxious, less withdrawn, less

dependent, and having better ego strength. However, these significant levels were not maintained at the 30-day follow-up period. Recommendations for future research were discussed.

Systematic Desensitization

Jay Stewart (1984) investigated the relationship between therapeutic approach, client anxiety, and client evaluation of counseling. The two treatments were Systematic Desensitization (SD), and Rational Emotive Therapy (RET). A second purpose was to investigate the effect of client hemisphericity on anxiety and evaluation of counseling.

Thirty undergraduates volunteered to engage in anxiety reduction. These subjects identified the stimulus which led to their excessive anxiety and reported state anxiety by completing the StateTrait Anxiety Inventory Form X-1 (Spielberger, Gorsuch & Leshene, 1970). Subjects were then categorized as right, left, or non-dominant in cerebral hemisphericity through their lateral eye movements (Gur 1975). Subjects were randomly assigned to the two treatment groups.

Advanced doctoral students were used as counselors. Three counselors exclusively used SD with their assigned clients, the other three exclusively used RET. Subjects and counselors met for four one-hour sessions. The sessions were separated by one week. At the end of each

session, the subjects completed the STAI as if in the presence of their previously identified source of anxiety. After the fourth session, subjects additionally completed a Counselor Evaluation Inventory (Linden, Stone, and Shertzer 1965).

Client anxiety levels were significantly lower for SD subjects than RET subjects only after the first counseling session. The trend of anxiety reduction over the four sessions differed between the two groups.

Treatment groups were nearly equal in rating the effectiveness of their counseling. There was a significant negative correlation between client ratings of counseling effectiveness for subjects who received SD but not for subjects who received RET.

There were no significant differences found between left and right hemispheric dominant on post-treatment anxiety levels of evaluation of counseling effectiveness. However, left-hemispheric dominants lowered their anxiety more than right dominants in RET, and right dominants lowered their anxiety more than left dominants in SD.

Recommendations for anxiety reduction counseling research included recruiting more hemispheric dominants and additionally using physiological measures of anxiety. Applications included using SD for client anxiety reduction if only one counseling session is to be provided.

Anxiety Management Training

William Jedlicka (1985) studied the effects of two different stress reduction interventions on five psychological variables. Subjects, who were diagnosed as having type A personalities, were assigned to one of three groups, Rational Emotive Therapy, Anxiety Management Training, and no therapy control. Before and after therapy each subject was administered the four subscales from the Jenkins Activity Survey (Type A, Speed and Impatience, Job Involvement, and Hard Driving and Competitive), and the short form of the hardiness test. The two therapeutic interventions were studied to determine which of the two would have the greatest impact on reducing Type A behavior. The first intervention, Rational Emotive Therapy (N=14), concentrates on changing a person's perception of a stressful event. The second treatment, Anxiety Management Training (N=15), works on allowing the individual to handle the effects of stress more efficiently. The control group (N=14) discussed current events from popular news magazines.

The subjects were from various walks of life including executives, healthcare professionals, clerical workers, housewives, and students. The Rational Emotive Therapy group consisted of 14 subjects. The study lasted for four weeks with one meeting a week for each group. Each weekly session ran for one and one half hours. Two-factor split-plot analyses of variance (treatment by pre- versus

posttest score) were used to assess the effect of the two interventions. Neither therapy was effective in changing scores on any of the tests. Since previous studies assessing the two types of behavior have serious methodological problems, the authors concluded that it was possible that Rational Emotive Therapy and Anxiety Management Training do not significantly effect Type A behavior.

Group Psychotherapy with Hypnosis

In 1985, James Buldas used group psychotherapy for enhancing late adolescent self-concept: Comparing the effects of hypnosis and Rational Emotive Therapy. The purpose of this study was to determine whether university students, classified as late adolescents, could enhance their self-concept as measured by the Tennessee Self-Concept Scale (TSCS) Total Positive Score.

Seven hypotheses were derived which stated the null relationship between self-concept enhancement and the treatment modalities of hypnosis and Rational Emotive Therapy, when compared over an eight week period of time.

A sample of university students enrolled in psychology 100 (N=54) were pre, post and follow-up tested using TSCS, with specific reference made to the Total Positive Score. The data were analyzed by a parametric statistical technique, the ANCOVA test of significance. The seven null hypotheses were validly analyzed for statistical significance, and each was not rejected. Self-concept scores of late adoles-

cent subjects were not significantly enhanced after eight exposures of group psychotherapy with hypnosis or Rational Emotive Therapy. Reliability coefficients were similar to those found in TSCS standardization. Also, results were consistent with the clinical literature that self-concept is a relatively stable formation.

Conclusions suggested inappropriate subject selection as well as duration of treatment exposure. Also, issues of experimenter effectiveness were discussed, and recommendations for future research were proposed.

Self Instructional Training

Robert Grassi (1985) investigated the efficacy of Rational Emotive Education (REE) and Self Instructional Training (SIT) with medium and high anxious children in fourth and sixth grades. A total of eleven dependent measures were used, including two measures of content acquisition and seven measures of emotional adjustment. Emotional adjustment was assessed with two self report measures, one behavior rating scale completed by parents, and scores on six factors of a behavior rating scale completed by teachers.

A total of thirty-six fourth grade, and 36 sixth grade children, were randomly selected to serve as subjects for the study. The data was analyzed using a 4-factor split plots analysis of covariance. The Tukey (b) multiple comparisons test was used to analyze the differences be-

tween treatment group.

The results of the study show that, when compared to an Attention Control, SIT and REE were more effective in increasing content acquisition of the respective treatments at posttest, but only REE was more effective at both grade levels at follow up. When compared to an Attention Control, Both REE and SIT were more effective in reducing anxiety, but only REE was more effective in reducing neuroticism. SIT and REE did not differ significantly from each other in reducing anxiety or neuroticism at either grade level. No significant differences were noted in the ratings by parents of students in the REE, SIT, or Attention Control groups. Ratings by teachers of children in the REE and SIT groups did not differ significantly from ratings of children in the Attention Control groups. However, ratings by teachers offered some support for the effectiveness of REE with initially high anxious students.

Results were discussed in terms of maximizing the outcomes of preventative mental health programs. Implications for future research were also discussed.

Person-Centered Therapy

In 1987 Jack Martin, Wyn Martin, and Alan G. Slemon presented a descriptive process study in which relations among counselor and client cognitive and behavioral variables were examined in relation to counselor and client ratings of counseling effectiveness. Unlike previous

cognitive-mediational process research on counseling, the conceptual and coding systems used were tailored specifically to two different counseling approaches. Data were obtained from videotapes of 20 counseling sessions and from 40 stimulated recall interviews with both counselors and clients following the counseling sessions. Ten of the sessions followed a Rational Emotive format; ten followed a person-centered format. Both therapeutic conditions consisted of two dyads, each studied experimentally during five sessions selected from 8 to 10 session brief counseling intervientions. Results indicated that variables composed from both cognitive and behavioral data predicted participant ratings of counseling effectiveness more than did behavioral variables alone. As in previous cognitive-mediational process research on counseling, such relations seemed to depend on a strong negative correlation between counselor transparency (accurate client perceptions of counselor intentions) and participant ratings of counseling effectiveness.

A summary of these results indicated that despite empirically confirmed differences in the counseling approaches studied and the methodologies used, the main results were similar to those yielded by previous research by Martin et al. (1986). Cognitive perceptions and processes do seem to be associated with participant's experiences of counseling, but in a rather nonobvious manner. It appeared

that clients did not need to know exactly what the counselor meant to do in order to experience counseling as effective.

Until stronger theoretical and empirical bases for understanding the results of cognitive-mediational process research on counseling are available, the authors suggested that it might be better to restrain speculation that carries prescriptive overtones. Another reason for curtailing such speculation is that this research, is descriptive. The intent of such work is not to compare the effectiveness of different forms of counseling, nor to furnish information regarding what works best for whom, but rather, to advance understanding of the sublet complexities of human actions in the social, interpersonal world of counseling and therapy.

Cognitive Behavior Therapy

In 1988, Warren, McLellarn and Ponzoha compared the relative effectiveness of "preferential" Rational Emotive Therapy (RET) and general Cognitive Behavior Therapy (CBT) in the treatment of low self-esteem and related emotional disturbances. Thirty-three subjects were randomly assigned to RET, CBT, and waiting-list control (WLC) groups. Therapy consisted of eight weekly one and one half hour group sessions. At posttest, both the RET and CBT groups changed significantly more than the WLC group on all measures; self-esteem, depression, general and social-evaluative anxiety, anger, and rational thinking. On the self-esteem

and self-efficacy measures, the CBT group changed significantly more than the RET group. At a six-month follow-up, both the RET and CBT groups maintained their gains, and there were no significant differences between groups on any measure.

While Ellis' hypothesis that RET is superior to CBT was not supported, strong support for the effectivenss of both RET and CBT was obtained. In a short time period, these group treatments significantly reduced clinical levels of low self-esteem, depression, anxiety, and anger. While the overall results indicated equivalent effectiveness of RET and CBT, at posttest CBT self-esteem and self-efficacy scores were higher than those for RET.

It was suggested that future research might compare the relative ability of self efficacy scores and actual postest self-esteem scores as predictors of future levels of self esteem.

The conclusions drawn from this study were subject to several limitations. Although the same therapists, aware of the hypotheses, conducted both treatments, measures of subjects' expectancies, rating of therapist behavior, and equivalent therapeutic outcomes provide evidence that experimenter bias was adequately controlled. Nevertheless, It is possible that the therapists' bias in favor of RET may have been communicated to clients in subtle, undetected ways. If this did occur, the findings suggest robust

effects of the CBT treatment. Other limitations were the lack of a placebo group and the absence of a WLC group at follow-up. Ethical considerations required that the WLC group be treated after posttest. An additional limitation was the sole reliance of self-report measures. It was suggested that behavioral measures and ratings by significant others (e.g., spouses) would have been a useful additional to clients' self-reports. However, it was noted that one of the self-report measures - the BDI had typically been a major measure of outcome in previous studies evaluating treatments of depression.

The authors suggested that one possibility that RET did not prove superior to CBT was that a truly preferential version of RET was not presented. Ellis had raised this criticism, in relation to not having subjects read articles by him on the preferential RET approach to emotional problems. Another suggested possibility was that RET might be more suitable for certain types of clients (e.g. brighter or more philosphically-oriented) while CBT might be more appropriate for others. This study did not attempt to obtain such a matching of client and therapy.

Another explanation offered was that both groups, although exposed to different therapy techniques, may have received a similar philosophical message from the therapists. Perhaps the philosophical concept of unconditional self-acceptance was conveyed to both groups.

In essence, the CBT group may have benefited from the RET philosophy of self-acceptance while the RET group did not benefit from the skills training that was the focus of the CBT group. Regardless of speculations, Ellis's claim that RET is superior to other forms of cognitive-behavior therapy was not supported by this study.

Exposure in Vivo

In 1988, Emmelkamp, Visser, and Hoekstra randomly allocated eighteen DSM-III diagnosed obsessive-compulsives to two treatment conditions: (1) Rational Emotive Therapy (RET) and (2) Exposure in Vivo. The RET treatment consisted of analyzing irrational thoughts, while Exposure in Vivo was self-controlled. Treatment consisted of ten sessions. Both treatments resulted in significant improvement in anxiety/discomfort and the Maudsley Obsessional Compulsive Inventory, and in a reduction of social anxiety. In addition, RET resulted in significant changes in depression. Results were maintained up to six months later. No significant differences were found between the two conditions.

This was the first controlled study showing that cognitive therapy has clinically beneficial effects on obsessive-compulsive patients. On the obsessive-compulsive targets, the results of cognitive therapy were about equally effective as self-controlled exposure in vivo, although more exposure patients were rated as clinically improved than cognitive patients. Both treatments were found to

lead to a reduction of social anxiety. On depression cognitive therapy led to significant improvements whereas self-controlled exposure did not. One of the main limitations of this study was the small number of participants in each group. The authors acknowledged that although it could be argued that this study probably did not have sufficient power to detect a small difference in treatment effectiveness, being that there was no sign of a difference in treatment effectiveness, it would be unlikely that with a larger number of Ns in each group significant between-group differences would have emerged.

Another limitation of this study was that exposure was self-directed rather than therapist-directed. The authors suggested that a future study directly comparing RET and therapist-guided exposure might be worthwhile.

Further, the authors warned that data at the six-month follow-up should be interpreted cautiously. As most of the patients received additional treatment during this period, this assessment cannot be considered a formal follow-up. Although this additional treatment did not lead to further significant reduction in target problems at follow-up II, it was felt that additional treatment in a number of cases was necessary to prevent relapse.

In summary, cognitive therapy proved to be as effective as exposure in vivo in dealing with obsessive-compulsive targets, and results were found to generalize to

other areas (i.e., depression and social anxiety). Given the characteristics of the present sample who received cognitive therapy (young, well-educated, non-chronic complaints), the authors felt there was a clear need to replicate this study with older, less highly educated, chronic cases. It was also recommended that future research efforts attempt to evaluate the effects of a comprehensive integration of cognitive and behavioral interventions.

Part II: Multiple Therapy Comparisons

L. Kelly (1982) studied Rational Emotive Therapy vs Lewinsohnian-based approaches to the treatment of depression. Three groups were compared in an effort to assess the effectiveness of cognitive, behavioral and control treatment groups for depression. Twenty subjects participated in a six week group treatment program. All groups were equally effective in reducing depressive symptomotology yet there were no significant differences between the groups on self-report or behavioral measures.

In 1982, C. Richards investigated the therapeutic preferences of Jungian personality types using Rational Emotive, Client-Centered, and Gestalt therapies. The purpose of this study was to determine if there is an identifiable therapeutic preference of individuals that reflects the major personality types as outlined by Jung.

Data were secured from 114 subjects ranging in age from 17 to 60 years, and classified by personality char-

acteristics (using the Myers-Briggs Type Indicator, administered to the entire sample). Subjects were then shown filmed demonstrations of Rational Emotive, Client-Centered, and Gestalt therapies and subsequently asked to rank order their preferences. Hypotheses central to the purpose of this study are that introverts and extraverts show differential therapeutic preferences; thinking types differ from other types in their preference for Rational Emotive Therapy; feeling types differ from other types in their preference for Client-Centered therapy; sensation types differ from other types in their preference for Gestalt therapy. Significant relationships between personality type and therapeutic preference were determined through the use of a chi-square analysis of data.

Data analyses involving the four research hypotheses resulted in nonsignificant differences between the groups with regard to personality type and therapeutic preference. The author concluded that either further, more refined research was indicated, or that the results accurately reflected existing population trends.

Thomas A. Walsh (1983) attempted to determine the effectiveness of Rational Emotive Therapy (RET), Progressive Relaxation (PR), Attention Placebo (AP), and a no-treatment group in reducing levels of trait anxiety in undergraduate students who participated in anxiety reduction workshops. The subjects in this study were fifty-one male and female

undergraduate student volunteers. The subjects were randomly assigned to one of the four treatment groups.

The Attention Placebo procedure consisted of a discussion about learning styles and the effects that the learning styles have on adjustments in the classroom. The no-control group served as a control with no treatment being administered.

Two self-report measures, the State-Trait Anxiety Inventory (STAI) (A-State), and the Multiple Affect Adjective Checklist (MAACL) ("In General"), as well as a behavioral measure, the Anxiety Rating Scale (ARS), were used to assess the effectiveness of each treatment on anxiety.

It was hypothesized that the self-report scales would reflect a decrease in anxiety which would be greatest for the RET treatment. The second hypothesis was that the students in the RET treatment would report the greatest amount of anxiety reduction according to the behavioral measure. The third hypothesis stated that there would be no sex differentiation in relation to anxiety reduction within any of the treatments.

An analysis of variance (ANOVA) on the difference between scores from pre- to posttest and an analysis of co-variance (ANCOVA) of the difference between scores from pre- to posttest by group and sex with pretest scores as the co-variant, were the methods for each measure, with alpha set at .05 for all analysis.

Results showed that there was a significant difference, in the effectiveness of anxiety reduction in the RET group, according to the STAI. The MAACL failed to reveal any significant difference between treatments. The RET group was more effective than the other treatments in anxiety reduction, and the PR group was more effective than the NT group, according to the ARS. All instruments revealed differences between sexes in anxiety reduction within any of the treatments.

Ellen Themes (1983) compared the following three methods of reducing math anxiety in women; Meichembaum's Cognitive Behavior Modification, Ellis' Rational Emotive Therapy, and math skills intervention. The extent of the relationship between math anxiety and background variables, and between math anxiety and causal attribution variables was also investigated.

The sample was a group of sixty women, ranging in age from 18 to 60 years, from a small private college. Each of the three groups met for six weekly sessions, lasting 75 minutes each. Participants were dropped if they missed more than one session. The Differential Aptitude, Numerical Ability Subtest, Form S (DAT; Bennett Seashore, and Wesman 1973) was used to measure achievement; the Mathematics Anxiety Rating Scale (MARS; Suin 1972) to measure math anxiety; and a causes assessment scale Spies, 1981) to measure causal attribution.

A two-way analysis of variance, repeated measures design was performed on the MARS. All groups showed significantly reduced math anxiety scores from pretest to posttest, from pretest to follow-up and from posttest to follow-up, but no group emerged as the method of choice. Pearson correlation coefficients were computed for math anxiety with background variables and with causal attribution variables. The correlation of the MARS with the DAT was significant, but the MARS with Math GPA, age, number of courses and length of time since the last math course was not. The MARS was also signficantly correlated with the following causal attribution variables: Ability level, difficulty of math, luck, help or lack of help from others, and efforts. It did not correlate significantly with mood current achievement or the way teachers presented math.

A multiple regression analysis was performed with the MARS as dependent variable. The following variables emerged as predictors; ability, level, luck and the sum of the causes. When multiple regression analysis was performed with the DAT as dependent variable, the predictors were age, math GPA and help from others.

In 1983, Scott Murray studied the differential effectiveness of stress reduction strategies for hospital staff experiencing multiple defuse stressors. Subjects were randomly distributed into either of the treatment groups or a control. The Spielberger State Trait Anxiety Inventory

symptomatology. For these rational thinkers, stressful life events and symptoms were not significantly correlated.

Sixty-eight undergraduate subjects were assigned to one of three treatment conditions: Six hours of stress reduction training using mostly RET attitude change techniques (RET condition), six hours of stress reduction training using mainly relaxation techniques and health counseling (HC/R condition), and a waiting list control group (WL condition).

At post-treatment assessment, it was found that RET subjects had significantly decreased their adherence to irrational beliefs. This result was maintained at a following assessment two months later. HC/R and WL subjects showed negligible change in irrational belief scores at both assessments. HC/R subjects were found to have significantly reduced their psychological symptoms at post-treatment. At follow-up, HC/R symptoms scores were not found to have maintained significant improvement. WL subjects' symptom scores did not significantly change. RET subjects' perceptions of the stressfulness of common life change events were found to have decreased significantly at both post-treatment and follow-up assessments. HC/R and WL subjects' perception scores did not change significantly.

Fenigsohn (1983) examined the effects of three methods of study skill group intervention with middle school underachievers. Thirty-six students who had failed one or more

academic subjects (English, Math Social Studies or Science) were randomly placed in one of four groups of nine students each. The first group was based on the theory and techniques of Rational Emotive Therapy. It attacked the "blame Factor", and attempted to build a strong and positive attitude in the students.

Practical study skill instruction was an adjunct to the Rational Emotive approach. The second group was that of Structural-Study Skills. This group concentrated on procedures and techniques in practical skill building areas such as organization, note and test taking, homework preparation and other such didactic procedures. The third group was that of Affective Education. Its premise was that by attending to the underlying dynamics associated with academic failure the student, through a cathartic group experience, is better able to cope with personal and social problems, and thus becomes able to deal with academic ones. Little emphasis was placed on study skills, but rather on the emotional needs of the student. The fourth group was a control group which received no treatment.

Each group met nine times for a period of forty-five minutes per session. The activities included open discussion, film strip viewing, paper and pencil activities and didactic instruction in various study skill areas.

Dependent variables were obtained pre- and post-treatment for subjects including grade point averages, results

of the sum of study habits and attitude questionnaire, and results of the teachers observation tally. From the data analysis, the following conclusions were drawn (1) The RET group showed significant improvement in study habits, study attitudes, study orientation and teacher observation tally scores. They did not show improvement in GPA. (2) The Structured-Study Skill group showed significant improvement in study habits, study orientation and teacher observation scores but not in GPA or study attitudes. (3) The Affective group showed improvement only in the teacher observation tally but in no other variables. (4) Between groups only one group showed statistically significant improvement over any other.

Michael Gombatz (1983) compared the effectiveness of Paradoxical Directives (PD) as a technique to Client-Centered (CC), Rational Emotive Therapy (RET) and wait-list control. It was hypothesized that subjects who received PD treatment would, 1) evaluate self-rated problem relief as more greatly improved than subjects in the CC, RET and/or Control (CG); 2) rate the quality of the relationship as measured by the Barrett Lennard Relationship Inventory (RI), higher than subjects in the CC and RET groups; 3) express a greater willingness to reveal themselves to a counselor as measured by the Willingness to Disclose Questionnaire (WTD) than subjects in the CC, RET and/or CG groups; and 4) show self-reported lower symptom distress level in depressed,

anxious, and/or hostile affect than subjects in the CC, RET and/or CG.

Sixty subjects were randomly assigned to one of four groups CC, RET, PD, or CG. Nine counselors on the same level of ability matched according to counselor familiarity, preference and belief in effectiveness were assigned to the three treatments, three counselors per group. There were three weekly fifty-minute treatment sessions.

Results indicated a statistically significant difference of all three groups when compared to the CG in self-rated problem relief. No significant differences were found among the treatment or control in the RI, WTD or the depression of hostility scale of the BSI. Statistically significant differences were found when the PD group was compared to the CG on the anxiety scale of the BSI. Inspection of the means revealed fairly consistant proportionate decreases of the affect in all of the treatment groups.

It was concluded that PD are as equally effective as CC and RET as evaluated by self-report outcome criteria and proportionate decrease in negative affect after treatment.

Roberta Morse (1983) conducted three test anxiety reduction workshops based on Systematic Desensitization, Rational Behavior Therapy, or Cognitive Behavior Modification. Twenty-five black students took part in this study. Subjects showed a significant pre- to posttest decline in scores on both the Worry and Emotionality scales of the

Test Anxiety Inventory, with the greatest decline occuring in the subject's receiving Rational Behavior Therapy. In 1983, LeVine-Welsh studied the effects of three treatments which incorporate Rational Emotive Techniques and Assertion Skills Training upon locus of control and assertive behavior in adult women.

This study utilized a pre-, post-, and follow-up design for comparison between treatment and control groups to determine the impact of differential treatments upon assertive behavior and locus of control in adult women. The treatments were designed to separate the following assertion training procedures: Assertion Training, Rational Emotive Techniques, and Rational Emotive Techniques coupled with Assertion Training.

A one-way ANOVA performed at pretest time showed no significant differences between groups prior to treatment. Repeated measures ANOVA were computed for all times of testing across all treatments.

Significant ($p<.05$) movement towards an internal locus of control, as measured by the Rotter Internal-External Scale, was found for the Assertion/Rational Emotive Group and the Assertion Group across pre- to posttest time. No significance was found for the treatment or time/treatment interaction effects with the Rotter.

No significance was found for increases in reported assertive behavior, as measured by the Rathus Assertiveness

Schedule, across all time and treatments.

Significance ($p<.05$) was found for observed assertive behavior, as measured by the Behavioral Observation Checklist, for the assertion and Assertion/Rational Emotive Group for time/treatment interaction. The Behavioral Observation Checklist was an instrument developed by the researcher of this study. Spearman-Brown split-half reliability testing demonstrated the Checklist to be a reliable instrument. Inter-rater reliability was also demonstrated.

Timothy Smith (1983) studied the change in irrational beliefs and the outcome of Rational Emotive Psychotherapy. The Rational Emotive model posits that changes in the endorsement of irrational beliefs mediate the therapeutic effects of Rational Emotive Psychotherapy. This study examined the correlations between pre- to post-treatment changes in beliefs and changes in treatment outcome measures within the context of a previously published study of Rational Emotive Therapy.

Subjects were fifty adults assigned to one of five conditions; RET; RET and Rational Role Reversal; RET and REI; Alternative Treatment or Control, who completed an idea inventory and measures of anxiety, depression, and neuroticism. As predicted, reliable correlations between changes in beliefs and changes in emotional distress were obtained. This relationship occurred in control conditions as well as in treatment groups, qualifying the support

obtained for the Rational Emotive model. Thomas Finn (1983) compared Relaxation Training, Rational Emotive Therapy and non-specific treatment effects on the reduction of muscle contraction headache symptoms.

Forty-eight muscle contraction headache sufferers were assigned to four treatment conditions; Progressive Muscle Relaxation (PMR), Rational Emotive Therapy (RET), a non-specific treatment in which subjects discussed the historical roots of their headaches and referred to as the Headache Discussion group (HAD), and a symptom-monitoring, waiting list control group (WLC). Out of these forty-eight subjects, 35 completed the program. Dependent measures consisted of data on each subject's weekly headache duration, frequency, severity and headache-free days which were derived from a daily headache diary. Frontalis EMG and self-report of anxiety based on the psychoasthenia scale of the MMPI were also utilized. Treatment consisted of 10 weekly, 1-1/2 hour group sessions.

The findings of this research indicated that the PME and RET produced similar improvements on measures of headache duration, frequency, severity and headache-free days at both posttest and two month follow-up. Both groups showed significant improvements in frequency, severity and headache-free days at posttest, relative to HAD and WLC; and significant improvements were maintained at follow-up for frequency and headache free days. For headache duration,

PMR and RET showed significant reductions relative to HAD at posttest and follow-up, but not relative to WLC. Statistically significant reductions in severity at follow-up were not observed for PMR or RET. The HAD and WLC groups did not differ on any measure as neither group showed significant improvements at any measurement period.

On the measure of frontalis EMG, the PMR, RET, HAD and WLC groups all did not show significant pre- to posttest changes. Between and within group differences for psychasthenia reduction also did not reach statistical significance, although significance was approximated for males.

The role of EMG in muscle contraction headache and overall MMPI personality profiles for this sample were also discussed.

Thorpe, Freedman and McGalliard (1984) assessed the contributions of emotional and cognitive rehearsal procedures in Rational Emotive Imagery in two analog studies with 55 student volunteers.

In experiment I, the two Rational Emotive Imagery components of cognitive and emotional rehearsal, taken seperately, were compared with the behavior rehearsal technique in a between groups study. Thirty-one volunteers from an experimental Assertiveness Training program were solicited from two large General Psychology classes. Subjects were distributed among three experimental groups by within-sample

by within-sample matching on the basis of scores on the Conflict-Resolution Inventory. After the groups had been formed, the treatment technique to be implemented for a given group was drawn randomly from the list of three treatments by an independent researcher. Behavior Rehearsal (acting), Cognitive Rehearsal (thinking), and Emotional Rehearsal (feeling).

General improvement was seen on all measures after this brief analog treatment program. The Cognitive Rehearsal Imagery was the most informative measure, having produced a group difference. Cognitive Rehearsal and Emotional Rehearsal, taken seperately, were not as helpful in a brief program as Behavior Rehearsal.

In Experiment II, the various combinations of procedures were examined in a four-group factorial study. The combination of cognitive rehearsal with Emotional Rehearsal forms an experimental version of the Rational Emotive Imagery procedure.

Procedures followed those of Experiment I, except that new subjects were used and different treatment combinations were compared. Twenty-eight students were recruited from three large General Psychology classes. In Experiment II, Behavior Rehearsal proved more effective than the treatment combinations but on questionnaire measures of social anxiety and irrational beliefs, Rational Emotive Imagery was superior to the other treatment conditions.

Although several measures produced statistically significant group differences, it was noted that it would not be known how clinically significant these effects were until a trial is conducted in a clinical setting. The treatment programs were brief, and it was likely that the combined treatment groups of Experiment II would have produced more change with extended treatment.

Within the limits of these two brief analogue studies, some clear conclusions were offered. Behavior Rehearsal was the most efficient procedure in both studies as measured by questionnaire and role play assessments of assertiveness.

It was also noted that REI inspired changes on general measures of social anxiety and irrational beliefs when behavior rehearsal did not. It appeared that the BR procedure was clearly effective but that this effectiveness was apparent only on specific target measures of assertiveness. In contrast, REI promoted change on general measures even though it was implemented in a structured way with the focus on assertive interactions. The impression was that REI subjects acquired some general ability to alter their thoughts and feelings in a beneficial way. However, it was cautioned that these impressions have to be tempered by the observation of inconsistent results for BR in the two studies. In experiment I, CR and ER produced improvements on the behavioral test when BR did not, and in that study BR produced changes on an inventory of self-statements

specific to assertiveness and, together with the ER procedure, on a general measure of irrational beliefs. In general, it was concluded that the most successful techniques were Behavior Rehearsal and Rational Emotive Imagery, albeit in different ways and on different measures.

The authors suggested that it would be desirable to evaluate REI with a sample of clinical clients with common problems involving dysphoric mood (e.g., social anxiety and mild depression). The prediction would be that a non-cognitive emotional rehearsal fantasy procedure would serve to introduce Cognitve Therapy concepts, but that the full REI combination of emotive and cognitive restructuring procedures would be necessary to bring definite benefit.

Ricketts and Galloway (1984) investigated the effects of one-hour treatments (Rational Emotive, Progressive Relaxation, Study Skills and Placebo) for test anxiety (The Suin Test Anxiety Behavior Scale), in sixty-one highly anxious undergraduates. Subjects were assigned to groups by block-randomized design. Results showed that subjects in the Relaxation group reported greater reductions of anxiety than those in the placebo procedure. No significant differences for academic achievement change (measured by class examination scores) were found among the groups.

Based on the results of this study, it was suggested that, as had been found in lengthier treatment, a single, one-hour session may reduce self-reported anxiety but not

improve academic achievement.

E. Greenwald (1985) studied the effects of Rational Emotive Education, Imagery and Bibliotherapy on self concept, individual achievement responsibility, and anxiety in sixth grade children. This study investigated the effects of three Rational Emotive Education (REE) treatments on rational thinking, self concept, individual achievement responsibility and anxiety level. Ninety-nine sixth grade children enrolled in regular classes at a public elementary school in a middle class community served as subjects. The sample included 52 boys and 47 girls ranging in age from 10 years, 11 months to 12 years, 8 months. The independent variable conditions included REE, REE plus Rational Emotive Bibliotherapy (REB), REE plus Rational Emotive Imagery (REI) and an attention control treatment. There were 15 class sessions held over an eight week period.

It was hypothesized, with regard to rational thinking, self concept, individual achievement, responsibility and anxiety, that: (1) children who participated in the REE treatment would demonstrate greater improvement as compared with children in the control treatment; (2) children who participated in the REE plus REB treatment would demonstrate greater improvement as compared with children in the control treatment or in the REE treatment; and, (3) children who participated in the REE plus REI treatment would demonstrate greater improvement as compared with children who partici-

pated in any other treatment.

Results of this study indicated that the children who participated in the REE plus REI treatment demonstrated significantly more improvement in rational thinking and self concept as compared with the children in other treatments. The children who participated in the REE treatment by itself, as well as the children who particpated in the REE plus REI treatment demonstrated significantly decreased anxiety as compared with the attention control treatment. The children in the REE treatment, contrary to prediction, demonstrated a significant decrease in anxiety as compared with the children in the REE plus REB treatment. There were no significant differences among treatments in individual achievement responsibility.

Correlational data also indicated that teachers of the children in the REE treatment and the REE plus REB treatment viewed their students self concept in a similar manner as their students viewed themselves.

It was concluded that the adjunct of REI is a potent addition to the REE treatment in that it led to improved rational thinking, self concept, and decreased anxiety.

In 1985, R. Q. Dana attempted to determine whether pre-treatment levels of assertion influence post-treatment outcomes in an alcohol abusing sample. This study examined the effect of pre-treatment assertion levels on treatment outcome. It also examined interaction effects between pre-

treatment assertion levels and treatment modality in effecting treatment outcomes.

The three hypotheses were: (1) The main effect of pre-treatment assertion levels, or the interaction of these levels and treatment modality (Behavioral, Rational Emotive, Client-Centered), will predict post-treatment drinking behavior. (2) The main effect of pre-treatment assertion levels, or their interaction with treatment modality, will predict post-treatment assertion levels. (3) The main effect of pre-treatment assertion, or their interaction with treatment modality will predict post-treatment symptomatology levels.

Twenty-two subjects were arbitrarily assigned to one of three treatment groups. Subjects completed the Alcohol Assertion Inventory (Watson, 1981) as well as the Short-Form Michigan Alcoholism Screening Test (Pokorny, Miller, & Kaplan, 1972) pre- and post-treatment. Drinking behavior was recorded throughout the six month treatment and follow-up period on the Alcohol Consumption Record (Sobell & Sobell, 1973).

Pearson correlations were performed to test the hypothesis that higher pre-treatment assertion levels are positively related to treatment outcomes. Hypotheses 1, 2, and 3 were tested by hierarchical multiple regressions. Hypothesis 1 was also tested by a 2 x 3 x 6 ANOVA (high/low assertion x treatment modality x six one-month drinking

periods). Hypothesis 3 was further tested by a 2 x 3 x 2 ANOVA (high/low assertion x treatment mode x pre-post SMAST). Significant interactions warranted simple main effects tests.

The results of this study indicated that those subjects with high pre-treatment levels of assertion drank less at treatment onset. Subjects who were highly assertive at treatment termination showed less SMAST measured symptomatology. Relative to this sample, those subjects who drank most and who were most symptomatic at treatment onset tended to drink most and show more symptoms at treatment termination. Conversely, those subjects who were low on these dimensions at pre-treatment tended to remain low at post-treatment. Client-centered subjects with high pre-treatment assertion achieved more positive outcomes than did their peers with low pre-treatment assertion. There was a decrease in symptomatology, as reported by the SMAST, between pre- and post-treatment for the Rational Emotive group.

Brian (1985) compared the effectiveness of three psychologically oriented approaches to the treatment of incipient alcohol abuse. The relationship between client ego stage and treatment effectiveness was measured in each group. The first question examined was whether Behavioral, Rational Emotive, or unstructured alcohol treatment groups had greater effects on client drinking behavior. A second

question was whether the three qroups had different client ratings of effectiveness. The third question examined the relationship between client ego stage and drinking behavior and client ratings of effectiveness in each of the groups.

Twenty-two subjects who received treatment in the multiple driving under the influence program volunteered to allow clinical data to be used for this study. As the subjects presented for treatment, they were assigned to one of three groups (Behavioral, Rational Emotive, or unstructured). Subjects took the Washington Sentence Completion Test (Loevinger & Wessler 1970) at the beginning of treatment (this test was later scored to assess subject ego stage). Drinking behavior was recorded by clients on the Alcohol Consumption Record, a research-validated, self-monitoring instrument. Drinking reports were kept for a six month period which covered treatment and follow-up sessions. Each group involved sixteen sessions lasting 90 minutes each. After the last session clients rated treatment effectiveness on the Client Rating of Effectiveness Scale.

A Kurskal-Wallis analysis of variance showed no difference in drinking behavior change between groups. A t-test indicated no difference between groups on client ratings of effectiveness. A significant positive correlation was found between ego stage and ratings of overall effectiveness in the behavioral group.

Emmelkamp, Mersch and Vissia (1985) conducted an

mental study of the problem of generality of results across samples. Thirty-five socially anxious analog subjects from a university community were selected through two recruitment procedures (classroom vs. newspaper advertisement), and received one of three treatments: (1) Exposure in Vivo, (2) Rational Emotive Therapy, and (3) Self-Instructional Training. Data of thirty-four clinical social phobics who received treatment and assessment procedures identical to those of the analog subjects were also used.

Results show that each of the three therapeutic procedures resulted in significant decrements in anxiety at posttest after six treatment sessions. There was no evidence that one selection procedure was superior to the other. Comparison of the results of this study with those of the social phobics revealed that findings were generalizable across samples. However, generalizing from the analog subjects to the agoraphobics who received the same treatment in a study by the first and second authors and colleagues was not justified.

Generally, results of the analog sample are quite comparable to those of the socially-anxious patients. Exposure was about as equally effective as cognitive treatment. RET showed a slight superiority over SIT on the Anxiety Scale and the IBT. In the clinical and analog sample, Exposure condition was the only treatment which showed improvement on the physiological variable.

The direct statistical comparison across the analog and socially-anxious samples revealed that the results were generalizable across samples. Thus, these findings provided some support for the generality of findings of a socially-anxious analog population, and suggested that results obtained with socially-anxious analog subjects could be generalized to clinically social phobics.

However, a comparison of these results with those of the agoraphobics of Emmelkamp, Brilman, Kuiper and Mersch (1985) who were treated with the same three treatment procedures, and who received an almost identical assessment procedure, revealed that generalizing from the analog subjects to the agoraphobics was not justified. Exposure was clearly superior to cognitive treatment with agoraphobics, while this was not the case with either the analog subjects or with the socially-anxious patients. It was, therefore, concluded that it was much more risky to generalize from socially-anxious patients to agoraphobics than it was to generalize from socially-anxious students to socially-anxious patients.

Analog subjects selected by different recruitment procedures (classroom vs. newspaper advertisement) benefited equally from the three treatments, indicating that there was no evidence that one selection procedure was superior to the other.

The authors noted that the analog samples used in

this research, were much more socially anxious than the majority of samples used in other studies. These subjects were recruited for a treatment study and did not receive any financial reward or class credit as was the case in many other analog studies. The use of recruitment procedures which increase the probability of obtaining highly anxious subjects was encouraged.

The authors also concluded that there was a clear need for research to define uniform selection criteria for social anxiety to enhance generalizing of results of analog studies to clinical social phobics.

Walter Everaerd (1985) conducted two studies on the treatment of male sexual dysfunction. In study I, twenty-four couples were placed on a six-week waiting list and subsequently treated with Systematic Desensitization (SD) or an adaption of the Sex Therapy (ST) method of W.H. Masters and V.E. Johnson (1970). Sexual function, satisfaction with the relationship, self-esteem, and social anxiety were evaluated at the start of the waiting period, before and after treatment, and in a follow-up. Results for twenty-two couples (males aged 24-68 years and females aged 22-62 years) who completed treatment showed that both SD and ST lead to improvement of sexual functioning, however, a significant difference between treatments could not be demonstrated. Neither SD nor ST improved satisfaction with the relationship.

In study II, thirty-two couples were assigned to ST or Rational Emotive Therapy (RET). Sixteen couples dropped out of treatment. As compared with males (mean age 36 years) who completed treatment, males who dropped out functioned relatively well sexually. Other differences between drop-outs and treatment completers could not be demonstrated. In couples completing therapy (mean age of females 33.9 years), both ST and RET lead to improvement of sexual functioning. Satisfaction with the relationship improved only in couples treated with RET. Significant differences between ST and RET could not be demonstrated in a valid way.

Nancy Higgins (1986) evaluated the effectiveness of two stress reduction programs. Fifty-three working women volunteered to be subjects, and were assigned to eight stress management groups by means of a modified randomization procedure. Subjects (N=17) in three of the training groups participated in a seven-session stress reduction program that employed the behavioral conditioning techniques of Progressive Relaxation and Systematic Desensitization. Subjects (N=18) in three other groups took part in a seven-session stress reduction program that involved instruction in the cognitive coping skills of Time Management, Rational Emotive Therapy, and Assertiveness Training. For both of the stress reduction programs the sessions were held weekly and most were about fifty minutes long. The subjects (N=18) in the remaining two training groups served as

delayed treatment control subjects. Pre-treatment and post-treatment testing sessions were held for all eight training groups. The instruments administered at these sessions were the Maslach Burnout Inventory, the Personal Strain Questionnaire, and the Work Schedule Questionnaire. Respectively these were used to assess emotional exhaustion, personal strain, and absenteeism, three outcome variables that are indicators of stress. Multivariate and univariate analyses of covariance were employed to evaluate the data.

A comparison of the effects of the behavioral conditioning techniques program with those of the cognitive coping skills program was not significant at the multivariate level. A comparision of the combined effects of the two stress reduction programs with the effects of the delayed treatment control condition was significant at the multivariate level. At the univariate level the groups that received training had significant decreases in emotional exhaustion and personal strain relative to the control groups. There was no significant difference in absenteeism between the training program groups and the control groups.

The conclusion drawn from this study was that both the behavioral conditioning techniques program and the cognitive coping skills program were effective in reducing stress, and that neither program was more effective than the other.

In 1986, Sherry McPherson investigated the components

of anger management as applied to an incarcerated population. The use of anger management techniques developed by Novaco (1975) were applied to a prison population and evaluated by multiple assessments to determine the therapeutic impact. Initially, the theories of aggressive behavior were explored from a biological and environmental standpoint. Social learning theory, as defined by Bandura (1977), was selected as the theory upon which the therapeutic interventions were based.

The research of Fink (1980), Schlichter and Horan (1981), and Gaertner (1983) were cited as precedents upon which this study was designed. Unlike the previous researchers, who followed Meichenbaum's (1977) stress inoculation model of treatment, this study focused specifically on the coping skills component of stress inoculation. The coping skills component was divided into traditional behavioral techniques and cognitive based therapies. The former emphasized a modified Assertiveness Training, Relaxation Therapy, and modeling. The cognitive component focused on Rational Emotive Therapy and Self-instruction.

Forty-eight subjects were recruited from a medium security prison setting for inclusion in the study. Four treatment cells consisting of the traditional behavioral therapy component, a cognitive treatment component, a combined treatment, and a waiting list control were employed in the research design. Treatment, except for the waiting

list control, followed the format of treatment manuals that outlined an eight week course of therapy.

Subjects were assessed on three measures at pretest and posttest. These included a self-report (Buss-Durkee Hostility Survey), role-played provocations, and an institutional adjustment measure. A 2 x 2 analysis of variance for gain scores was utilized to assess the effect of the presence or absence of the behavioral and the cognitive components.

The results indicated a significant therapeutic gain with respect to the cognitive component on the role-play provacations. A marginal positive gain was found on the Buss-Durkee Hostility Inventory for the behavioral therapy component. The follow-up measure of institutional adjustment evidenced a positive trend that fell short of significance for the cognitive component. Because the treatments appeared to be effective in a selective manner, inferences about a possible correlation of assessment content and therapy impact were made.

Emmelkamp, Brilman, Kuiper and Mersch (1986) investigated the differential effectiveness of three treatment strategies on thirty-nine agoraphobics (18-56 years) with a mean duration of agorphobia of 5.4 years. Thirty-five subjects were referred by psychiatrists or general practitioners; eight subjects reponded to a newspaper advertisement. Subjects were randomly assigned across the following

conditions: Exposure in Vivo, Rational Emotive Therapy, and Self-Instructional Training. After six treatment sessions, Exposure in Vivo was clearly superior to the cognitive treatments on measures of phobic anxiety and avoidance. Possibly delayed effects were assessed one month later, after which subjects received three weeks of prolonged Exposure in Vivo and were reassessed to evaluate possible interactions between cognitive strategies and Exposure in Vivo. Additional Exposure in Vivo sessions for all conditions lead to continuing improvement.

Results of this study indicated that Exposure in Vivo was superior to Cognitive treatments and, there was no evidence that priming agoraphobics with Cognitive therapy enhanced the overall effects of the exposure treatment.

In 1986, Rosenberg and Brian developed group therapy programs for multiple driving-under-the-influence offenders, and compared the effectiveness of these programs in twenty-two male multiple offenders. Using the cognitive behavioral model of release defined by G.A. Marlatt (1978) and Rational Emotive Therapy (RET) as developed by A. Ellis (1979), groups for coping skills, RET, and unstructured therapy were formed; and the subjects were assigned to treatment for six months. A battery of tests were administered before and after treatment. No significant differences in outcome were found among the groups except for assertiveness. The RET group had assertiveness equal to that of the coping skills group,

but had not received training in assertiveness and drink refusal. All three approaches appeared to have clinical utility. Ayres and Hopf (1987) assigned fifty-nine undergraduates who scored high on a measure of communication anxiety were analyzed using analysis of variance (ANOVA). Findings indicated that VIS was as effective as either RET or SD in reducing communication anxiety. It was suggested that, since VIS could be employed without disrupting normal classroom routine, this technique may be employed without expending the large amount of resources involved in either RET or SD. Overall decreases in anxiety were greater in the RET and SD conditions, suggesting that these techniques should be employed when adequate resources are available.

Mahrer, Nadler, Stalikas, Schachter and Sterner (1988) applied a twelve-fold category system of therapeutic change processes to ten sessions of Client-Centered, Rational Emotive, and Experiential Psychotherapies conducted by exemplars of each approach. By analyzing the results within and across each category and approach, the findings indicated therapeutic change processes common across the approaches and subsets distinctive to each approach.

Therapeutic change processes refer to those valued in-session events indicative of clients' change, improvement, progress, movement, or process. The twelve categories included: (1) providing meaningful material (2) describing-exploring feelings (3) emerging of warded-off material;

(4) insight-understanding (5) expressive communication; (6) working therapist relationship; (7) strong feelings toward therapist; (8) strong feelings in extra therapeutic context (9) altered personality state; (10) new behaviors in prospective context; (11) manifesting reporting change in target behavior; (12) general state of well-being.

To accommodate the breadth of therapeutic orientations contained in the twelve-fold category system, and to enable weighting of individual judges' response biases, a large set of ten judges representing varying orientations was assembled. The data consisted of four sessions of Client-Centered Therapy, four sessions of Rational Emotive Therapy, and two sessions of Experiential Therapy, conducted respectively by Carl Rogers, Albert Ellis, and Alvin Mahrer, totalling ten sessions with the different clients.

In all three approaches, category 1, providing meaningful material, and category 5, expressive communication, were used with significantly high frequency. Taken together with other reports, these findings began to yield a picture of therapeutic change processes occurring with high-frequency, common across approaches, and consisting of clients communicating expressively and providing therapeutically meaningful and significant material.

Each of the three approaches was characterized by a distinctive profile of change processes. Client-Centered Therapy had the highest proportion of category 1 and the

lowest proportion of category 11. Rational Emotive Therapy had the highest proportion of category 6, working therapist relationship. Experiential Psychotherapy was lowest in category 1 and highest in categories 5,8,9, and 10.

There were no significant differences in the use of categories 2, 3, 4,7 and 12 in the three approaches. The authors commented on the fact that there appeared to be no differences in category 2, describing-exploring feelings, and category 4, insight-understanding in Client-Centered and RET approaches, respectively.

Malouff, Lanyon, and Schutte (1988) evaluated the effectiveness of a brief, group Rational Emotive (RET) treatment and Problem-Solving treatment for divorce related dysphoria. A waiting list condition was used for comparison.

Fifty-three subjects were obtained via community-wide publicity regarding the availability of a separation adjustment program. Accepted applicants were seperated or divorced, and stated that they had negative feelings related to the break-up of their marriage. None of the participants appeared to be psychotic at the time of the interview and, at pretesting, all scored a ten or greater on the Beck Depression Inventory.

Both RET and Problem-Solving treatments involved four weekly 90-minute sessions. The RET treatment mainly involved techniques suggested by Ellis (1962). The Problem-Solving subjects were taught a problem-solving approach

patterned after D'Zurilla and Goldfried (1971).

The recently divorced subjects improved when given Rational Emotive group therapy or Problem-Solving therapy, and maintained their improvement at a one-month follow-up. Based on these results, the authors suggested that the therapies were effective in reducing dysphoria, and the effects endured for at least a month after the end of treatment.

A key question stemming from these results was whether the improvement produced by the treatments was due to specific or general effects. Because none of the differences between the treatments were statistically significant, it was suggested that treatments were roughly equivalent in effectiveness.

Three explanations of the equivalence of improvement were discussed: (a) Both treatments had nonspecific effects, (b) both had specific effects but through different processes, or (c) both had specific effects due to common features of group psychotherapy with homogeneous groups in a supportive, change-oriented atmosphere.

The written comments of the treatment subjects supported all alternatives. Thus, it was concluded that because there was no way to choose safely among the three viable interpretations of the results, all may have been partly true.

SECTION 3: OTHER OUTCOME STUDIES OF RET

This section includes those RET outcome studies which do not strictly fall under the headings of the prior two sections. These studies largely consist of RET combined with other therapies; measurements of specific elements of RET; or therapies which are very similar or comprise a generic form of RET.

In 1983, Bernard, Kratochwill and Keefauver treated a 17 year old female with high frequency of hair-pulling by Rational Emotive Therapy followed by Self-Instructional Training (SIT). A cognitive behavioral model was employed to identify maladaptive thought patterns that were hypothesized to be inducing high levels of anxiety that, in turn, was hypothesized to be maintaining hair-pulling. The use of an interaction-type design indicated that, whereas RET led to a modest decrease in hair-pulling, the subsequent introduction of SIT in addition to RET, led to a rapid elimination of hair-pulling. Follow-ups at five and twenty-one weeks indicated no reoccurrence of hair-pulling behavior.

Marrazo, Hickling, and Sison (1984) reviewed and evaluated the literature on the psychological treatment of childhood migraine. A case example of a fifteen year old girl was provided that demonstrates the combined treatment of childhood migraine using both Biofeedback and Rational Emotive Therapy. The first three sessions involved RET for approximately 15-20 minuts, followed by 40 minutes of Bio-

feedback therapy. Sessions four and five were devoted exclusively to RET, and the final session again involved an RET focus followed by biofeedback therapy. These six treatment sessions occurred over the course of a ten-week period.

This case study suggested that the combination of biofeedback techniques with RET provides a relatively quick, effective, and lasting psychological intervention in the treatment of childhood migraine. The subject reported that it was the RET training that proved most effective in dealing with stressors related to migraine attacks.

Based on the positive results obtained in this case, the authors suggested a controlled investigation of the role that cognitive factors play in the treatment of childhood migraine with Biofeedback techniques appeared to be warranted and of great value.

Ray, Freidlander and Solomon (1984) administered the Rational Behavior Inventory to 62 male alcoholic veterans who completed all phases of a comprehensive six-week alcohol treatment program which included group Rational Emotive Therapy, group educational discussion, individual counseling with a behavior focus, and the opportunity to attend AA meetings.

The Rational Behavior Inventory was administered prior to, and immediately following the final two-week phase of the treatment program. The major indicator of change in

alcoholic patients' rational beliefs, as statistically significant changes were noted on six of the eleven factors.

These findings supported the use of the Rational Behavior Inventory as an index of cognitive change with alcoholic patients. However, the lack of control group precluded the conclusion that the Rational Emotive Therapy-based treatment was responsible for the observed changes in alcoholic patients' rational beliefs.

It was concluded that further investigation with appropriate controls and multiple measures of behavioral changes was warranted before the efficacy of the therapy could be demonstrated unequivocally with alcoholic patients.

In 1984, Ricks Warren, Greg Smith and Emmett Velten studied Rational Emotive Therapy and the reduction of interpersonal anxiety in junior high school students.

Fifty-nine 12-16 year old students who volunteered to participate in treatment for interpersonal anxiety were randomly assigned to Rational Emotive Therapy (RET), Rational Emotive Therapy with Imagery (REI), Relationship-oriented Counseling (ROC), or a Wait List Control (WLC), to investigate the effectiveness of RET and REI.

Groups met for seven, fifty-minute sessions during a three-week period, and assessments were conducted at pre-treatment, post-treatment, and three-week follow-up. Both self-report and sociometric measures were used to evaluate

treatment outcome. Results showed that both RET and REI subjects were rated on sociometric measures as significantly less interpersonally anxious than WLC subjects. Mean scores favored RET and REI subjects, but no significant differences between these subjects and ROC subjects were obtained. The self-report measure did not significantly differentiate between groups, but REI subjects demonstrated significant pre- to follow-up changes. Both RET and REI subjects exhibited greater reductions in irrational thinking than did ROC and WLC subjects. Findings supported the use of Rational Emotive Imagery as a component of RET.

G. Gerber (1985) investigated the effect of instructional materials based on Rational Emotive conceptualization of Impulsivity. The technique involved teaching awareness of irrational thinking combined with Cognitive Behavior Modification (CBM). Specific CBM techniques involved step-by-step problem-solving and the use of coping statements. The experimental population consisted of forty third-grade, fourth-grade and fifth-grade emotionally disturbed and learning disabled students. The study utilized an Attention-Control group (N=19), and a treatment group (N=21). All youngsters were pre-identified by their teachers as impulsive based on a teacher-completed rating scale, and were attending self-contained public school special education classrooms. Research hypotheses involved a reduction in impulsivity and trait anxiety concurrent with an increase

in analytical reasoning skills and feelings of positive self-concept.

The thirteen dependent variable measures selected for this research were found to be highly interrelated. In order to measure treatment effects in the most straightforward manner, a factor analysis was performed. Three unrelated factors were extracted and used in the final statistical analysis. They were cognitive abilities (a combination of reasoning and impulsivity measures), anxiety (a combination of reasoning of two seperate measures of anxiety), and self-concept. The statistical analyses involved a multivariate analysis of covariance.

The use of a combined Rational Emotive method with CBM techniques was not supported. No significant main or interaction effects were noted on any of the research hypotheses.

In 1984 Thomas Billotti studied the effects of Rational Emotive Imagery and Rational Emotive Imagery plus hypnosis in reduced public speaking anxiety. Forty-seven undergraduate students who reported anxiety while speaking in public served as subjects. Subjects were divided into high and low levels of imaginative ability, and were randomly assigned to one of three experimental groups: Ratonal Emotive Imagery, Rational Emotive Imagery plus hypnosis, and an instructional control group. It was hypothesized that: 1) Subjects in the Rational Emotive Imagery plus hypnosis group would

evidence significantly less anxiety than subjects in the Rational Emotive Imagery and instructional control groups, 2) subjects in the Rational Emotive Imagery group would evidence significantly less anxiety than subjects in the instructional control group, and 3) subjects with high pre-treatment levels of imaginative ability would evidence significantly less anxiety than subjects with low pre-treatment levels of imaginative ability.

The results of this study provided some support for the efficacy of combining Rational Emotive Imagery with hypnosis. Subjects in the Rational Emotive Imagery plus hypnosis group evidenced significantly less anxiety than subjects in the Rational Emotive Imagery and instructional control group on the two self-report measures. There were no significant differences between subjects in the Rational Emotive Imagery group and instructional control group or between subjects with high and low imaginitive ability on post-treatment assessments. Subjects tended to have their highest pulse rates at the start of the speeches, their lowest pulse rate just after the speeches, and moderate pulse rates just before and during the speeches. Factors contributing to these results and interpretations of the data were discussed. Suggestions regarding the direction of future research were offered.

Dekker, Dronkers, and Staffeleu (1985) treated forty males (mean age 32 years) complaining of sexual dysfunction.

Treatment was conducted in male-only groups using Rational Emotive Therapy, masturbation exercises, and social skills training. Results indicated that sexual functioning was generally improved, and social anxiety decreased as a result of therapy. Inhibited sexual desire was associated with poor outcome. Several other variables (e.g. type of dysfunction, social anxiety, age, education level), did not predict improvement of sexual functioning.

Based on these results, it was concluded that this method of treatment appeared to provide adequate treatment for various complaints of men with different backgrounds.

Deloris and William Floyd (1985) studied twenty-five bulimic clients, age 15 to 35 years, who voluntarily presented themselves for therapy or were referred by medical or other sources. Subjects were seen in individual therapy every five days, with an additional family session on a bi-weekly basis for the eighteen cases in which there were parental or spouse involvement. Individual sessions primarily used cognitive behavioral techniques, and the family sessions incorporated Conjoint Therapy techniques. Twenty-one subjects were administered the Minnesota Multiphasic Personality Inventory. A follow-up study was done with each client within the first eighteen months after termination of treatment.

Findings indicated that none of the subjects had completely stopped her binging/vomiting patterns but, instead

of five to eight such incidents per day, subjects reported no more than two experiences per month. All subjects had also reached a desirable weight range.

Ronald Baker (1985) evaluated temperament changes that occur during psychotherapy as measured by the T-JTA. Two different methods of psychotherapy were compared. One therapeutic method was a combination of Behavior Modification and Rational Emotive Therapy. The other method was a combination of Transactional Analysis and Gestalt therapy. Two experimental groups of forty patients were utilized, along with three control groups. Each subject received a pretest before treatment and a posttest after twelve sessions of psychotherapy. Only patients requesting professional assistance for troubled relationships were included. The main criterion for evaluating psychotherapy efficacy was significant change in scores on nine different temperament traits of the Taylor-Johnson Temperament Analysis.

The first experimental group obtained significantly improved scores over the control group on five of the nine traits measured. The second experimental group obtained significantly improved scores over the control group on three of the nine traits. However, only one trait (nervousness) showed significant improvement that was consistent for both experimental groups. The results indicated that psychotherapy at this outpatient setting was instrumental in facilitating positive change and growth in patients and

their interpersonal relationships.

In 1985 Jack Becherer designed a study to determine if training in Rational Emotive Therapy and Study Skills would be more effective in improving academic competence than training in study skills.

The subject population consisted of 141 students who were on academic probation at a community college. Students were recruited to participate in a one-credit, graded seminar designed to increase the possibility of succeeding in college. Forty-two students were placed in one of four seminars. In addition, twenty-one students who initially expressed an interest in the seminar but later decided not to participate comprised the control group.

Treatment groups were offered both day and evening, and consisted of one, ninety-minute session per week for eight weeks. The criterion measures were grade point average, the Survey of Study Habits and Attitudes (Brown and Holtzman, 1966), and student retention.

The research hypothesis predicted that the RET study skills group would be more effective than the non-RET study skills group which, in turn, would be more effective than the control group on all criterion measures.

The control group had significantly higher GPA and study attitude scale scores on the SSHA at the onset of the study. Analysis of covariance procedures, using pre-test scores as covariates, were employed on post-test

GPA and SSHA data to control for pretest differences.

No significant differences were found between the treatment groups at the completion of the study. However, a significant difference between treatment and control groups did exist on the post-treatment Teacher Approval Scale of the SSHA. Both treatment groups reported substantially larger increases on each SSHA scale than the control group. No differences existed among groups on retention rates, nor was time of participation a significant factor.

The Data were analyzed on the basis of the amount of effort that students expended in the seminar. Final grade received in the seminar and number of seminar classes attended comprised the operational definitions of student effort. Significant differences were obtained on GPA and on each subscale of the SSHA, distinguishing students who applied themselves in the seminars from those who did not.

Based on these results, the authors concluded that a program to increase academic competence among students on academic probation could be successful, but only if the student makes a commitment to change previously ineffective study patterns.

McGee (1985) measured the effect of cognitive behavioral intervention in reducing self-reported stress in individuals self-defined as stress-prone. Utilizing an index of irrational beliefs developed by the author targeted specifically for personal coping skills, McGee employed elements

of Rational Emotive Therapy (RET), Rational Behavior Therapy (RBT), Rational Emotive Imagery (REI), and Rational Self-Analysis (RSA) in the treatment program. Approximately fifty percent of the training involved stress theory, while the other half focused on cognitive-behavioral techniques.

The Derogatis Stress Profile (DSP), an instrument derived from interactional stress theory, was used to test seventeen hypotheses in a study of 61 stress-prone volunteers. Twenty-eight females and thirty-three males, primarily of middle-age and married status, were randomly assigned to experimental and control groups. Fifty-eight percent were college graduates and thiry-four percent were ranked in the highest social position category of Hollingshead's Two-Factor of Social Position Scale.

Thirty-four subjects in the experimental group and twenty-seven in the control group were pre- and posttested following four, two-hour training sessions of the Cognitive Behavioral Stress Management (CBSM) program. A significant difference was found between the adjusted means favoring the experimental group on the following scales: Total Stress Scale, Personal Domain Scale, Time Pressure Scale, Relaxation Potential Scale, and Global Stress Score. Analysis of data using age and sex as covariants revealed that neither age nor sex had an impact on the findings.

The significance of this study was its use of cogni-

tive-behavioral techniques for stress management in stress-prone individuals. Previous stress research had been hampered by the absence of a self-report stress instrument compatible with modern stress theory. Utilizing the DSP and an index developed for stress-prone subjects based on interactional stress theory, the researcher was able to target those coping skills necessary for effective stress management.

In 1986, J. Neuman provided a single subject design study with repeated measures across time for each of six clients. The particular design utilized examined the effect of between one and three independent variables, as well as specific sequences of different treatments across six subjects.

Exposure in Imagery, thought stopping, and Rational Emotive Therapy were the independent variables. Three separate phases were introduced, and consisted of baseline, intervention, and follow-up.

The major dependent variables were self-reports of the frequency, intensity and duration of obsessions, recorded during all stages of the program. To assess the clinical importance of the interventions, four additional dependent measures were introduced. These consisted of two measures of social adjustment, the Social Avoidance and Distress Scale and the Social Adjustment Self-rating Scale for Obsessions, and two measures of depression, the Beck and

Hamilton Inventories.

Three clients did not improve during the particular sequence of three treatments to which they were assigned. Regarding the thought stopping technique, the results of the study were not encouraging, though inconclusive. Also, the data indicate that for two clients RET appeared to be an effective strategy to combat obsessions, while for one other client, for whom the exposure RET sequence was applied, exposure was effective, with furthe r gains made during RET.

The data were discussed with emphasis placed on the individual clients. Possible explanations were given to account for within subject variablity in the data. Also, attempts were made to explain why improvements were not made by three of the clients. The experimental methodology was analyzed and suggestions for further research were offered.

Gary Greven (1986) attempted to determine the effectiveness of a Rational Emotive Therapy (RET) program in altering the irrational beliefs and locus of control (LOC) of inpatient alcoholics. The variables evaluated for change within treatment and between treatments were ten irrational beliefs as measured by the Irrational Beliefs Test (Jones, 1969) and locus of control as measured by the Internal-External Locus of Control Scale (Rotter, 1966).

The sample consisted of sixty male volunteers from

two Veterans' Administration Medical Centers (VAMC) alcohol treatment programs. Thirty volunteers from an Illinois VAMC served as the RET treatment group and thirty volunteers from an Indiana VAMC served as the Alcoholics Anonymous treatment group. Treatment groups were equivalent to each other in age, education, estimated IQ, years, problem drinking years, and IBT and I-E pretest scores.

The RET program consisted of lectures about the problems associated with alcoholism, and the theory and practice of RET, plus personal skills training, relaxation training, and milieu therapy. The Indiana treatment was a registered A.A. program, and consisted mainly of lectures on the principles of A.A. and group therapy.

It was concluded that both RET and A.A. may have effectively changed some irrational beliefs among inpatient alcoholics. RET appeared to be effective in changing a larger number of irrational beliefs than A.A. RET also appeared to be more effective than A.A. in changing certain irrational beliefs. However, neither treatment appears to change locus of control from pre- to posttest. Conclusions and implications of this study were discussed.

Joan Mathews-Larson (1987) monitored the sobriety of 100 alcoholics, age 17 to 80 years, who were exposed to an experimental six-week outpatient treatment program concentrating on biochemical restoration combined with Rational Emotive Therapy. Sixty percent of the subjects had pre-

viously failed one or more alcohol treatment programs and, of the 100 subjects, 98 were known to have at least one alcoholic relative, with 48 reporting alcoholism on both sides of their family. Two were adopted -- parents unknown. A number of other studies had shown similar results, suggesting a strong genetic component to alcoholism.

Two important results were evident from this combined alcohol treatment modality. First, the high percentage of successful abstinence reportedly achieved. Second, the stability of the clients, as evidenced by the reduction or elimination of specific long-term symptoms compared to conventional treatment modalities. The addition of biochemical intervention seemed crucial to greatly reducing the severity of reported symptoms.

The author also stressed the importance of dealing with major lifestyle issues that usually went uncorrected (i.e. smoking, poor diet, allergies, etc.). Results also indicated that the role depression plays in mortality requires further exploration. A major emphasis of this work was on a more holistic approach, as abstinence in itself, was not shown to produce wellness or stability.

A key observation supported by this work was that certain people possess specific vulnerability of "chemistry" susceptible to alcoholism. The author identified two major types of responses. The first was "energized" with high tolerance and little after-effects. The second called

"allergy/addiction" response was seen in the "binge" drinker who drinks somewhat randomly, but often cannot control consumption when drinking.

This study supported the hypothesis that a program emphasizing a biochemical-based, out-patient, non-drug, treatment modality would be more successful in producing long-term sobriety than conventional therapy-only-based programs. However, the author cautioned that, controlled studies testing this approach under more rigid scientific controls were required, as the results of this study were preliminary.

In 1988, Maes and Schlosser conducted a pilot intervention study on changing health behavior outcomes in asthmatic patients. Starting from a prior study, in which cognitive and coping variables proved to be related to well-being, the use of medical resources and the absence from work in asthmatic patients, the authors constructed a cognitive-educational (a combination of health education and Rational Emotive Behavior Modification) intervention program aimed at altering coping behavior in asthamtic patients in order to influence emotional distress and use of medical resources. The effects of the program were assessed by means of a pretest/posttest control group design.

The program was offered to ten patients and their partners. Both before and after the intervention, cognitive

attitudes, coping behavior in attack situation, coping in daily life, emotional distress, and the use of medication were measured in the experimental and control groups. It was found that patients who received the program became less preoccupied with their asthma and reported significantly less emotional distress (anxiety and anger) in daily life. In addition, they used less maintenance medication (corticosteroids).

The authors stressed the importance of using medical variables such as the number of attacks as covariates in this type of research.

The program itself consisted of eight weekly two to three hour group sessions, in which ten asthmatic patients and their partners took part. During the first session, the ABCD-scheme was introduced to the patients by a health psychologist. The following sessions were devoted to a specific topic related to asthma.

Nineteen patients (nine females and ten males) were referred by two lung specialists. They had a confirmed medical diagnosis of bronchial asthma. All patients used two or more different medicines because of their asthma, and were considered over-users of medication by two lung specialists. They were not hospitilized at the time of the study, and were matched on sex and age in order to obtain a comparable experimental and control group. The experimental group received the above mentioned program in addi-

tion to standard medical care, whereas the control group received standard medical care only. Results indicated that there were no significant intervention effects on the cognitive attitude variables optimism, locus of control and shame.

There were also no significant intervention effects on the way patients coped with attacks. It seemed that the cognitive intervention strategy was not very effective in altering attack related coping. It was suggested that this may be due to the fact that it focused on altering coping with asthma in everyday life rather than on influencing coping with attacks. In addition, it may be difficult to induce changes in the way patients cope with attacks by means of a cogntive intervention, as the experienced anxiety during attacks is so overwhelming that patients can hardly gain rational control over their behavior.

The program did however have a significant reducing effect on focusing on asthma in everyday life. When compared to the control group, patients who had received the program were less preoccupied with their asthma in everyday life, which indicated that the program was effective in altering one of the variables which may mediate reduction of emotional distress and use of medical resources.

Apart from the fact that the intervention brought about fewer changes in coping with asthma than expected, patients who received the program were less preoccupied

with their asthma, and experienced less emotional distress in daily life situations. In addition, they needed less maintenance medication. The authors concluded that the intervention effects must be demonstrated in a larger group of patients at different times of the year, prove to be relatively stable over a period of time, and also prove to be specific for the treatment intervention.

Presby-Kodish (1988) discussed remarriage problems for women in terms of personal and socioeconomic issues in light of problems with changing expectations, conflicts in combining career and married life, and the problems of choosing appropriate men. A case history of psychotherapeutic treatment of one woman representative of others in the author's practice was described.

Rational Emotive Therapy and General Semantics Techniques (A. Korzybski 1933), were applied. General Semantics, like RET, is concerned with how people perceive and understand themselves, what is going on around them, and how these perceptions and understandings relate to their language usage and behavior. Both of these techniques were used to help subjects integrate her recently developed independence with interdependence with her second husband. Application of these procedures was followed by decreased guilt and depression.

In 1989, Albert Ellis presented a case study using Rational Emotive Therapy as crisis intervention during a

single session with a suicidal 27-year old female.

Ellis took an Adlerian and RET-oriented attitude toward the subject, trying to show her that she had most of the attributes for a good life; intelligence, ability to work toward long-term goals, desire to relate intimately, and good looks. He actively disputed her ideas that she had to be perfect, and demonstrated the disadvantages of prematurely ending her life.

Ellis also outlined and combatted her demand for certainty, her irrational conviction that she must, under all conditions, do well and be loved, and highlighted her low frustration tolerance. Ellis used encouragement and humor, and gave the patient unconditional acceptance. Three homework assignments were also given; 1) agreeing to contact her therapist before she actually tried any real suicide attempt; 2) look for and write down all absolutistic and perfectionistic musts and shoulds that led her to become depressed and suicidal; and 3) sing to herself, at least three times a day, some of Ellis' humorous, rational songs.

Techniques used in this case included steadfast refusal to feel intimidated by the client's strong suicidal leanings, and the active-directive approach of showing suicidal clients how life can be a fascinating challenge rather than an empty bore. Ellis concluded that these IP

and RET methods could frequently interrupt a suicidal process and give severely depressed clients a chance to think and act more rationally and life preservingly.

CHAPTER III

REVIEW OF PREVIOUS RESEARCH, DISCUSSION, SUMMARY, AND RECOMMENDATIONS

Review of Previous Research

Seventy-three percent of the studies included in DiGiuseppe and Miller's article focused on some form of anxiety reduction, such as speech anxiety, test anxiety, or interpersonal anxiety. The remaining 27% of their studies dealt with such problems as snake phobia and stuttering. The number of studies concerned with anxiety reduction was significantly reduced in the McGovern and Silverman article, where only 23% of the studies focused on this problem. Aside from various anxiety situations, the 1983 research included discussions of such problems as migraine headache, weight loss, alcohol abuse, personality change, dating skills, emotional disturbance, self concept, assertion, and depression. Although the number of problem areas increased in the McGovern/Silverman article, many issues such as phobias, obsession, and various other psychotic disorders were, again, not included.

Increasing the number of problems that Rational Emotive Therapy is tested on, serves to increase the general-

izability of results to a broader range of therapeutic situations.

The number of therapies to which RET has been compared also increased from the time of DiGiuseppe and Miller's review to McGovern and Silverman's. The original literature review, covering the period of 1970 to 1976, reported that RET was compared to a limited number of therapies such as Systematic Desensitization, Assertiveness Training, Behavioral Training, and Client-Centered Therapy. Such major therapies as Gestalt, Psychoanalytic, and Reality therapy were absent from the list.

Although the more recent review indicated an increase in the number of therapies to which RET had been compared, this increase remains somewhat limited, as the preponderance of outcome studies tended to compare the effects of Rational Emotive psychotherapy with some form of behavior therapy, either systematic desensitization or behavioral rehearsal. The McGovern/Silverman article includes the addition of comparisons of RET with such treatments as psycho-dynamic insight therapy, Eclectic therapy, in-house treatment programs, relationship-oriented counseling, relaxation training, self-instructional coping therapy, stress management training, Gestalt therapy, and pharmacotherapy, among others.

While representing a substantial increase in the num-

ber of therapies that RET has been compared to, absent from these comparisons, were such major therapies as Psychoanalysis, Existential therapy, Transactional Analysis, and Reality therapy. McGovern and Silverman concluded that the failure of researchers to make comparisons with other psychotherapies, rendered the results inconclusive at best.

A problem commented on by both DiGiuseppi and Miller and McGovern and Silverman, was the extensive use of non-representative subject pools in a majority of the studies reviewed. In these cases the sample tended to be comprised of high school and college students.

According to DiGiuseppe and Miller, "the goal of any psychotherapy outcome research is to answer the question: 'which therapy works for what clients under what conditions?'" DiGiuseppe and Miller, (1977). The research reviewed in these studies, tended to pay insufficient attention to the influence of specific client variables, rendering the results somewhat inconclusive.

It was concluded that the efficacy of RET or any other therapeutic system can only be demonstrated when actual clinical populations are used. While it was acknowledged by the authors that utilizing such populations can often be advantageous, as it ensures more scientific rigor, such studies can be considered analog at best, since their results cannot be generalized to clinical

populations.

The level of training possessed by the therapists used in these studies was another methodological problem commented on by the authors, particularly in those studies reviewed by McGovern and Silverman. In many cases, it was noted that graduate students had been responsible for administering treatment. It was thought that their lack of experience might lead to such problems as inconsistency of treatment, which, in turn, could minimize the positive outcome in these studies and limit the generalizability of the findings.

Another hazard discovered during this research was the constant use of only one therapist throughout the studies. This error was considered perhaps the most dangerous of all experimental shortcomings, because of the resulting increase in the likelihood of experimenter bias, which, again, would limit the generalizability of the findings.

The length of treatment also created some concern when reviewing previous outcome studies. In most of these studies, the duration of treatment was ten weeks or less. Although the number of significant findings were quite impressive, it was noted that the use of non-clinical populations needs to be considered a factor, as longer duration of treatment maybe necessary for more disturbed subjects. This issue must also be acknowledged when con-

sidering the the generalizability of these results.

DiGiuseppe and Miller also felt that there were inadequate control groups provided in many of the studies they reviewed. Although the use of control groups did increase during the studies completed during the period reviewed by McGovern and Silverman, this issue remained a problem. Without sufficient control groups, it becomes difficult, if not impossible, to determine the degree of success achieved by any treatment. Often, the effects of various unrelated factors must be ruled out as influencing the results of outcome studies and, without the benefit of carefully monitored control groups, these factors cannot be identified.

DiGiuseppe and Miller further noted a lack of follow-up data, which they deemed essential in determining the permanence of any behavior change. Insufficient follow-up data in many of the studies reviewed in both of these articles seriously weakened the support for the effectiveness of RET. It was suggested that all future studies include follow-up data of at least six months in an effort to document the success of Rational Emotive treatment. It was likewise noted by McGovern and Silverman that the immediate effects of RET generally produce positive results, however, there was no rigorous research indicating the effectiveness of RET after termination. The absence of any longitudinal studies to evaluate RET over a period

of years severely limits the generalizability of the findings in these studies.

While it appears that the majority of research reviewed by these authors indicates support for Rational Emotive Therapy, further investigation indicates that there were many methodological errors committed in these studies which may severely limit the generalizability of these results. Also, there does not not seem to be sufficient follow-up evidence provided to indicate that the initial results of Rational-Emotive treatment remains successful after a period of time.

Both DiGiuseppe and Miller and McGovern and Silverman, suggested that future research should address these shortcomings in order to provide more useful and reliable results.

Findings from both previous reviews were assessed in a general manner, and both concluded that their research, as a whole, supported the efficacy of Rational Emotive Therapy.

More specifically, DiGuiseppe and Miller found RET to be more effective than Client Centered Therapy when dealing with introverted persons, while McGovern and Silverman were unable to assess RET compared to Client Centered Therapy, as there were no studies comparing these two therapies included in their review.

DiGuiseppe and Miller also found RET to be more effective than Systematic Desensitization in the reduction of

anxiety, while McGovern and Silverman indicated no significant findings supporting the conclusion that RET is more effective than Systematic Desensitization.

A combination of cognitive therapy and behavior therapy appeared to be the most efficacious treatment for depression in the DiGuiseppe and Miller research. McGovern and Silverman found only one study dealing with depression, and their findings coincided with the original review.

DiGuiseppe and Miller also found that the relative effectiveness of RET compared to assertiveness training was inconclusive. McGovern and Silverman discussed two studies which compared RET to assertiveness training, and in both cases, RET was favored over assertiveness training, although no definite conclusions were drawn.

Discussion

In general, this thesis agrees with both DiGuiseppe and Miller, and McGovern and Silverman's findings which supported the efficacy of RET. Of the 89 studies reviewed in this thesis, 49 resulted in positive finding for RET. Those studies not indicating RET as the most effective treatment often resulted in no significant difference between treatments. As with McGovern and Silverman, no other treatment method proved to be significantly better than RET. However, in several cases, RET in combination with various other therapy techniques was found to be the most effective treatment.

Regarding the specific conclusions commented on by DiGuiseppe and Miller and McGovern and Silverman: 1) There were four studies reviewed in this thesis comparing RET with Client Centered Therapy, (Martin, Martin, and Slemon, 1987, Richards, 1982, Gombatz, 1983, and Dana, 1985). In three of these cases, there appeared to be no significant difference between the treatments, while in the fourth study, RET was significant.

Although none of these studies had introverts as subjects, RET did prove to be as effective as Client Centered Therapy for the multi-symptomatic participants in these studies. RET was significantly more effective than Client Centered Therapy when used with alcohol abusers. 2) Of the two studies reviewed in this thesis which compared RET with Systematic Desensitization (Morse, 1983 and Everaerd and Dekker, 1985), one resulted in RET being significant in reducing anxiety, while the second study, found no significant difference between therapies for the treatment of male sexual dysfunction. 3) Both DiGuiseppe and Miller and McGovern and Silverman agreed that a combination of cognitive therapy and behavior therapy was the most effective treatment for depression. Of the two studies in this thesis that addressed depression, one study compared RET with a Lewinsohnian-based approach (Kelly, 1982), and concluded that there was no significant difference between the treatments. The results of the second study (Caraway and Hayslip,

1985) supported the conclusions arrived at by DiGuiseppe/Miller and McGovern/Silverman. 4) Both DiGuiseppe and Miller and McGovern and Silverman agreed that no conclusions could be drawn regarding the efficacy of RET over assertiveness training. In the one study from this thesis that did compare RET to assertiveness training (LeVine-Walsh, 1983), results favored RET in combination with assertiveness training when compared to RET and assertiveness training individually.

Regarding methodological shortcomings, DiGuiseppe and Miller and McGovern and Silverman noted inadequate control groups and the failure to make comparisons with other forms of therapy. The studies reviewed in this research were also lacking, to some degree, in control groups, however, there does appear to be a significant improvement in the number of studies included in the current research that include control groups. As for comparing RET with other forms of therapy, there also appears to be an improvement. Although several prominant therapies remain excluded, the inclusion of such therapies as Reality and Gestalt indicate a possible trend toward comparing RET with more noted therapies.

There also appears to be an improvement regarding McGovern and Silverman's comment regarding the use of posttest only studies. In general, there seems to be a decrease in these types of studies in more recent research.

McGovern and Silverman indicated that there had been a significant increase in the type of subjects used in the studies discussed in their review, where as DiGuiseppe and Miller commented on the extensive use of non-representative samples. McGovern and Silverman felt that many of their studies had broadened their population base, providing a wider test of the RET postion.

Although high school and college students remain a very popular and convenient subject pool, this trend continues to show improvement. Populations included in this research included nurses, shoplifters, senior citizens, runners, hypocondriacs, and physician assistants.

Although McGovern and Silverman commented on the improvement in studies dealing with client variables such as socioeconomic status and I.Q., it appears this improvement was shortlived, as there seems to be an absence of such consideration in the studies reviewed in the present research.

The lack of adequate dependent variables and the weakness of existing psychometric scales were problems cited by both DiGuiseppe/Miller and McGovern/Silverman. Although self-report measures were common among the studies reviewed in this thesis, it does appear that an improvement has been made. The inclusion of such measures as behavioral measures, help to make more objective comparisons possible.

Both DiGuiseppe and Miller and McGovern and Silverman

found the lack of follow-up studies to be a concern. The studies in this thesis indicate that there has been improvement in this area. Although many studies do not include follow-up research, there does appear to be a significant increase compared with previous research.

The duration of treatment remains a problem. There seems to be little improvement in this area, and should be addressed by any future researchers.

Another issue raised by the previous research concerns the lack of training of the therapist. Again, this seems to remain a problem with the present research. Although several studies describe the therapist as being well versed in the RET technique, few are noted as being acknowledged pratitioners of this therapy.

Since the McGovern/Silverman review, the number of problem areas that RET has been tested in has increased, allowing RET to be generalized to an even broader range of therapeutic situations. In addition to such topics as headache, weight loss, and alcohol abuse, issues such as sexual dysfunction, aging, shoplifting, hair-pulling, disability, hypocondria, agoraphobia and divorce have been added to the spectrum. Although this research still does not prove effectiveness, the RET paradigm remains supported.

McGovern and Silverman noted an improvement in the number of other therapies that RET had been compared. The present research, although including a majority of the

previous therapies does not seem to have increased the therapies that RET has been compared. Alcoholics Anonymous, sex therapy and transactional analysis appear to be the only additions.

Longitudinal studies remain absent from this research. While RET has been described as a short-term therapy, the lack of research documenting its lasting effects has remained an unaddressed issue. McGovern and Silverman commented that the lack of funds and personnel to provide such research is often not available. This may still be the case, and could explain the continued lack of long-term studies. Longitudinal studies would do much to increase the credibility of RET as a permanent therapy.

Summary and Recommendations

As with DiGuiseppe and Miller and McGovern/Silverman, the present literature does support the efficacy of RET. Although there have been significant improvements in the number of therapies that RET has been compared to, as well as a broadening of the subjects it has been tested on, it is suggested that several areas remain lacking in this body of research. Other prominant therapies such as analytically oriented and noncognitive therapies still need to be included in the spectrum of therapies that RET is compared to.

Also, although there was a significant improvement in the type of subjects studied, student populations still

appear to be the most available, albeit least generalizable. A continued effort to broaden the subject pools used to study RET would increase the varification of its effectiveness on other populations. The inclusion of longitudinal studies in future research on RET would greatly improve its standing as a permanent therapy.

While there appears to be an increase in the number of outcomes conducted with RET, there is no actual increase. Outcome studies of Rational Emotive Therapy have remained constant from DiGiuseppe and Miller through 1989.

Generally, there appears to be some improvements in the research conducted since 1982. However, some of the same issues remain unaddressed. It is suggested that future researchers concentrate on these specific problems to improve the credibility of RET.

In conclusion, this review coincides with the previous findings of DiGuiseppe and Miller and McGovern and Silverman, the RET is a valuable, effective therapy that warrants increased research to broaden its application. Over the past twenty years, the research that has been conducted with RET has constantly varified its role as an efficacious therapy applicable in a variety of problem situations. Future research will, undoubtedly, continue to strengthen this view of Rational Emotive Therapy.

APPENDIX I

Non-Comparative Studies from DiGiuseppe and Miller

Name/Year	Comparisons	Problem	Subjects	Outcome
Jacobs (1971)	RET vs. 2 control groups vs. placebo	anxiety	college students	RET sig.
Wine (1971)	RET + modeling vs. RET + model.	test anxiety	college students	RET + model. sig.
Karst Traxler (1970)	RET vs. fixed role therapy	speech anxiety	college students	No sig. diff.
Trexler Karst (1972)	RET vs. placebo vs. control	public speaking anxiety	college students	RET sig.
Straatmeyer Watkins (1974)	RET vs. RET-disputing vs. control	public speaking anxiety	college students	RET sig. on pre to post testing; not sig on post test compar.
Keller Corake Brookings (1975)	RET vs. control	anxiety and irrational ideas	geriatric population	RET sig.
Bard (1973)	RET + proselytizing to friends vs. RET	irrational beliefs	college students	RET + pros. sig.
Jarmon (1972)	RET vs. RET + bibliotherapy vs. placebo vs. control	speech anxiety	college students	RET + biblio sig.

Name/Year	Comparisons	Problem	Subjects	Outcome
Maultsby (1971)	RET + written homework	multi-symptom-atic	psychiatric outpatient	85% of pats. judged most improved rated writ. homework valuable

APPENDIX II

Comparative Studies from DiGiuseppe and Miller

Name/Year	Comparisons	Problem	Subjects	Outcome
Maes Heiman (1972)	RET vs. client centered vs. systematic desensitization vs. control	test anxiety	high school students	RET + sys des sig. vs client ctr'd + cont. on GSR and heart rate; no sig. diff. between groups on State-Trait Anxiety
DiLoreto (1971)	RET vs. client centered vs. system. desensitization vs. placebo vs. control	interpersonal anxiety	college students	RET and sys. desensitiz. sig.
Meicheubaum Gilmore Fedoravicius (1971)	Group RET vs. Group system. desens. vs. group RET + group system. desens. vs. placebo vs. control	speech anxiety	college students	RET alone and system. des. alone better
Meicheubaum (1972)	Cognitive modification vs. system. desens. vs. control	test anxiety	college students	cog. modif. sig.
Kauter (1975)	Systematic rational restructuring vs. systematic desensitization vs. control	anxiety	volunteer population from newspaper ad	all treatment sig. pre to post test

Name/Year	Comparisons	Problem	Subjects	Outcome
Moleski Tosi (1976)	RET vs. systematic desensitization vs. RET + In-vivo practice vs. system. desens. + in-vivo practice vs. control	stuttering	adult stutterers	RET Sig. better
Wein Nelson Odom (1975)	Cognitive restruc-turing verbal extinction vs. sys. des. vs. placebo vs. control	snake phobia	college students	cog. rest. + sys. des. better
Holroyd (1976)	RET vs. sys. des. vs. RET + sys. des. vs. pseudo-therapy/ meditation vs. control	test anxiety	college students	RET Sig.
Wolfe (1975)	RET + modeling + behavioral rehearsals vs. modeling + behavioral rehearsals vs. placebo vs. control	assertive-ness and anxiety	women volunteers	Both groups Sig. for assert; only RET sig for anxiety
Tiegerman (1975)	RET vs. assertive training vs. RET + assertive training vs. placebo vs. control	inter-personal anxiety	college students	All treats. Sig. over contols; assert. train best followed by comb. than RET

Name/Year	Comparisons	Problem	Subjects	Outcome
Thorpe (1975)	RET vs. systematic desensiti-zation vs. behavioral rehearsal vs. placebo	asser-tiveness	college students	RET better but not sig.
Maultsby Knipping Carpenter (1974)	RET vs. Control	primary prevention	emotionally disturbed high school students	RET Sig.
Maultsby Costello Carpenter (1974)	RET vs. Control	preven-tive mental health	college students	RET better than control

APPENDIX III

Studies From McGovern and Silverman

Name/Year	Comparisons	Problem	Subjects	Outcome
Hymen Warren (1978)	RET + imagery vs. RET-imagery	test anxiety	11 under-graduates	No sig. difference
Barabasz (1979)	Psychophysio. arousal: RET vs. placebo vs. no treat.	test anxiety	148 students	RET sig. better than placebo and no treatment
D'Angelo (1978)	RET vs. control	fear of negative evaluation	78 ind.	RET Sig.
Katz (1978)	RET vs. placebo vs. no treatment	test anxiety	30 students	RET Sig.
Rosenheim Dunn (1977)	RBT alone	multi-sympt.	5 M & 7 F in military health set.	improve. but not sig.
Roberts (1977)	RET vs. control	multi-sympt.	48 students	RET Sig.
Krenitsky (1978)	REE vs. placebo vs. control	relation of age/IQ to effi-cacy of REE	59 older (60-79) adults	age/IQ not a factor. REE sig. in rat. thinking and emotional adj; not Sig. on neuro. scale
Ritchie (1978)	REE vs. control	irrational beliefs; assert.; locus of control	200 5th grade students	REE sig. in irrat. beliefs; improved in assert. locus of control

Name/Year	Comparisons	Problem	Subjects	Outcome
Patton (1978)	RBT vs. control	emotional disturbance	34 emot. disturbed adolescents	RBT sig. for RBT concept test common perc. Inv. IN-EX scale/ Time comp. SC SC of POI improve. but not sig. in-dir. supp sc and all sub scales of Obs Emot Inven.
Savitz (1979)	RET vs. control	emotional disturbance	35 out-patients	No dep. meas. but imp. noted for all by referring physician
Block (1978)	RET vs. in-house school treatment program	school failure & misconduct	40 11th & 12th grade minority students	RET better but not sig.
Kujoth (197)	RET vs. psycho-dynameic insight therapy	irrational ideas and negative emotions	115 community college students	RET Sig. wrt irrat. ideas, better but not sig. wrt not emotions
Kujoth Topetzes (1977)	RET vs. psychodynamic Insight therapy vs. eclectic therapy	irr. ideas & negative emotions	115 community college students	RET Sig. wrt irrat. ideas, anxiety and depression
Warren (1979)	RET vs. RET + imagery vs. relationships oriented counseling	inter-personal anxiety	60 junior high school students	Both RET groups Sig. from pre to post and wrt control

Name/Year	Comparisons	Problem	Subjects	Outcome
Smith (1980)	RET vs. relationships oriented counseling	test anxiety	60 junior high school students	No sig. diff. diff. wrt. ROC; but RET sig. pre to post wrt to self report and sig. compared to control on sociometric measures
Baither Godsey (1979)	RET vs. Relaxation training	test anxiety	150 under-achieving students	RET better, but not sig.
Lipsky Kassinove Miller (1980)	RET vs. Relaxation training	emotional adjustment	50 adults (20-60 yrs) actual patient population	RET sig.
Jackson (1980)	RET vs. self-instructional coping therapy	assertiveness	43 females	Both RET & SI sig. from pre to post; RET better. but not sig. wrt to SI
Jenni Wollersheim (19	RET vs. Stress Management Training	Type A behavior	42 individuals	Both sig. wrt control RET sig. for high degrees of Type A character. wrt SMT.

Name/Year	Comparisons	Problems	Subjects	Outcome
Bigney (1979)	RET vs. control	person-ality/ temper-ment changes	12 couples in marriage counseling	improved but not sig.
Rainwater (1979)	RET case study	obsessive	male obsessive	sig. improve.
Stevens (1979)	RBT alone	stress	individuals in Security Service of U.S. Air Force	Sig. improve.
Cox (1979)	RBT alone	alcohol abuse	15 criminal offenders	improved - only 2 of 15 had parole revoked after treatment
Plachetta (1979)	RBT vs. control	dating skills	17 volunteers	RBT sig. on Dating Fear Scale & & Soc. Avoid. & Distress Scale improved on fear of neg. Evaluation Scale
Zelie Stone Lehr (1980)	RBT vs. control	school discipline	60 students	RBT sig. for 2 behavior ratings & recidivisim
Block (1980)	RET vs. placebo vs. control	weight loss	40 over-weight	RET sig.

Name/Year	Comparisons	Problems	Subjects	Outcome
Dye (1981)	REE vs. attention vs. no treatment	concept	maternally deprived adolescents	improved but not sig.
Eades (1981)	RET vs. Behavioral Assertion Training	assertion and irrat. beliefs	30 under-graduates	Both RET and BAT sig. pre to post; only RET sig. comp. to control
Cohen (1977)	RET vs. Cognitive Modification	test anxiety	16 female undergrads.	RET better but not sig.
Foley (1977)	RET vs. Instituional Program	alcoholism	52 males	Both treat-ments sig.

APPENDIX V

Non-Comparative Studies Used In This Thesis

Name/Year	Comparison	Problem	Subjects	Outcome
Von-Pohl (1983)	RET	Multi-symp.	6 emotion. disturbed children	RET sig.
Cirillo (1985)	RET w/discrim. cues vs. RET w/out discrim. cues	Multi-symp.	96 male & female adults	RET with discrim. cues sig.
Fosterling (1985)	RET	Multi-symp.	225 undergrads.	RET sig.
Gunn (1986)	Rational Behavior Therapy	Multi-symp.	43 rational behavior clients	RBT sig.
Carayannis-Schneider (1987)	RET	Multi-symp.	18 dually diagnosed adults	RET sig.
Jacobson Tamkin Blout (1987)	RET	Multi-symp.	61 male psych. patients	RET sig.
Friedberg (1982)	RET	Ejaculatory Incompetence	26-year old grad. stud.	RET sig.
Beher-Zimmerman (1982)	RET	Fear of Intercourse	23-year old female	RET sig.
Ram (1983)	RET	Sexual Dysfunction	22-year old male	RET sig.
Munjack, et al (1985)	RET	Erectile Failure	16 males w/erect. failure	RET sig.
Reed (1983)	RET	Performance Anxiety	80 M and F volunteers	No sig. diff. between groups

Name/Year	Comparison	Problem	Subjects	Outcome
Briggs (1986)	Rational Assertive. Training	Anxiety	Physicians Assistants	RAT sig.
Gitlin Tucker (1988)	RET	Trait anxiety	152 College students	RET not sig.
Maxwell Wilkerson (1982)	Group RET	Anxiety	24 female undergrads.	RET sig.
Lee-Gilmore (1982)	Rational Assertiv. Training	Assertiveness	42 RNs	RAT sig.
Bowin (1983)	RET	Stress	72 undergrads.	Results not conclus.
Buckley (1983)	Rat. Emot. Affective Ed. Program	Social and emotional problems	Soc. & Emot. dist. grade school stud.	Efficacy of REAE program not supported
Thurman (1983)	RET	Type A behavior	22 Type A university students	RET sig.
Solomon Ray (1984)	RET	Shoplifting	94 adults convicted shoplifters	RET sig.
Ellis (1984)	RET	Abrassiveness	25-year old female	RET sig.
Omizo Cubberly Omizo (1985)	Rational Emotive Education	Learning disabilities	60 learning disabled children	REE sig.
Caraway Hayslip (1985)	Rational Behavior Therapy	Depression	Retirees	RBT pot. valuable W/seniors
Lo-Fuang (1986)	Rational Emotive Education	Learning disabilities	60 learning disabled adolescents	REE sig.

Name/Year	Comparison	Problem	Subjects	Outcome
Pauley (1986)	RET	Obesity	Obese female	RET sig.
Leaf Gross Todres Marcus Bradford (1986)	Rational Emotive Education	Multi-sympt.	83 M & F Undergrads.	REE sig.
Omizo Lo-Fuang Williams (1986)	Rational Emotive Education	Learning Disabilities	60 learning disabled adolescents	REE sig.
Bohlman (1986)	RET Bibliotherapy	Low Self Acceptance	50 runners	Use of RET RET in bibliother. interven. supported
Oldman (1987)	RET	Aging	52 middle-aged females	RET sig.
Farley (1987)	Rational Behavior Problem Solving	Disabilities	Disabled Adults	RBPS sig.
Ellis (1987)	RET	Hypocondria	30-year old hypocondriac	RET sig.
Maes (1987)	Group RET	Emotional distress	Chronically ill patients	Emo. dis. signif. reduced
Woods (1987)	RET	Type A Behavior	49 employees of a large corporation	Usefulness of RET in reducing stress supported
Ellis (1987)	RET	Bordum	28-year old female	REE sig.

APPENDIX VI

Comparative Studies Used in this Thesis

Name/Year	Comparison	Problem	Subjects	Outcome
Meyer (1982)	RET vs. recreat. ed. prog. vs. no Contact Control	Anxiety	80 volunteers	RET not sig.
Jasnow (1983)	RET vs. Relaxation Train. vs. Control	Anxiety	95 sixth grade students	RET most effect. in reduc. neurot.; no diff. between groups in reducing anxiety
Wilson (1983)	RET vs. Profess. Support Group vs. Control	Anxiety	28 elem. & middle teachers	No sig. diff. between groups
Lyons (1983)				
Conoley Conoley McConnell (1983)	RET vs. Gestalt vs. Reflex. List. vs. Control	Anger	61 female undergrads.	Both treats more effect. effective than control
Voelm (1983)	REE vs. Trans. Anal. vs. Control	Multi-Symptom.	80 acting out and socially withdrawn adolescents	REE sig.
Stewart (1984)	RET vs. System. Desens.	Anxiety	30 undergrads	System. Desens. Sig.

Name/Year	Comparison	Problem	Subjects	Outcome
Jedlicka (1984)	RET vs. Anx. Mgment Train. vs. Control	Type A Behavior	43 Type A personal.	RET not sig
Buldas (1984)	RET vs. Group Psychotherapy w/hypnosis	Low Self Esteem	54 Undergrads.	No sig. results from either group
Grassi (1984)	REE vs. Self Instructional Training vs. Atten. Control	Multi-symptom.	36 fourth graders and 36 sixth graders	REE most effect.
Martin Martin Slemon (1987)	RET vs. Person Centered Therapy	Multi-symptom.		No sig. diff.
Warren McLellarn Ponzoha (1987)	RET vs. Gen. Cog. Behavior Therapy vs. Wait List Control	Self Esteem	33 adult volunteers	RET + CBT sig.; results do not support claims that RET is super. to other CBT
Emmelkamp Visser Hoekstra (1987)	RET vs. Exposure In Vivo	Obsessive/ Compulsive Behavior	18 obsess./ compulsives	No sig. diff. between groups
Kelly (1982)	RET vs. Lewinsohnian-based approach	Depression	20 depressed M & F	No sig. dif. between groups
Richards (1982)	RET vs. Client Centered vs. Gestalt vs. control	Therapeutic preference	114 M & F (17-60 yrs)	No sig. dif. between groups

Name/Year	Comparison	Problem	Subjects	Outcome
Walsh (1983)	RET vs. Progressive Relaxation vs. Attention Placebo vs. No Treatment	Anxiety	51 M & F Undergrads.	RET most effect. reducing anxiety
Themes (1983)	RET vs. Cognitive Behavior Mod. vs. Math Skills Intervention	Math Anxiety	61 female college students (18-60 yrs)	All treats. reduced anxiety
Murray (1983)	Stress Management Training vs. RET vs. Control	Stress	Hospital Staff	No sig. diff. between treats
Wakefield (1983)	RET vs. Relaxation Training + Health Counsel. vs. Wait List Control	Stress	68 Undergrads.	RET sig.
Fenigsohn (1983)	RET vs. structural study skills vs. affect. ed. vs. no treat.	Low academic achievement	36 7th & 8th grade low achievers	No treat. showed sig. improve.
Gombatz (1983)	Paradoxical Directives vs. Client-Ctr'd vs. RET vs. Control	Multi-symptom.	60 M & F	No sig. diff. between treats
Morse (1983)	System. Desens. vs. Rat. Behav. Ther. vs. Cog. Behav. Ther.	Test Anxiety	25 black college students	RET sig. in reducing test anxiety

Name/Year	Comparisons	Problem	Subjects	Outcome
LeVine-Welsh (1983)	Assertion training vs. RE technique vs. RE technique + assertion training	Asser-tiveness	Adult females	RET + assert. training sig.
Smith (1983)	RET vs. RET + Rat. Role Rev. vs. RET + REI vs. Alt. Treat. vs. Control	Multi-symp.	50 adults	No sig. diff. between treats
Finn (1984)	Progressive muscle relax. vs. RET vs. non-specific treatment vs. symptom monitor. wait list control	Muscle contraction headaches	48 muscle contraction headache sufferers	No sig. diff. between treats
Thorpe, Freedman, McGalliard (1984)	I Behavior Rehearsal vs. Cog. Rehearsal vs. Emot. Rehearsal II Behavior Rehearsal vs. REI vs. Behav. Reh. + Emot. Reh. vs. Cog. Reh. + Behav. Reh.	Multi-Symp.	27 Undergrads.	Behav. Rehear. sig.
Ricketts, Galloway (1984)	RET vs. Prog. Relax. vs. study skills vs. placebo	Test Anxiety	61 undergrads	Progress relax. sig.
Greenwald (1985)	REE vs. REE + Rational Emot. Bibliother. vs. REE + REI vs. Attent. Control	Multi-Symp.	99 6th graders	REE + REI sig.
Dana (1985)	Behavioral vs. RET vs. Client-Ctrd.	Alcohol Abuse	22 Alcohol Abusers	RET sig.

Name/Year		Comparisons	Problem	Subjects	Outcome
Brian (1985)		Behavioral vs. RET vs. Unstruct.	Alcoholism	22 Alcoholics	No sig. diff. between treats
Emmelkamp Mersch Vissia (1985)		In Vivo vs. RET vs. self-instructional training	Social phobia	34 social phobics	Exposure in vivo sig. over other treats
Everaerd Dekker (1985)	I	System. desens. vs. sex therapy	Male sexual dysfunct.	22 couples w/male sex. dysfunction	No sig. dif. between treats both showed improv.
	II	System. desens. vs. RET	Male sexual dysfunct.	32 couples w/male sex. dysfunction	Both treats showed improv.
Higgins (1986)		Behavior Condition vs. Cog. Coping Skills vs. Delayed Treat. Cont.	Stress	53 working women	Both treats equally effective
McPherson (1986)		Traditional Behav. Ther. vs. RET vs. Combo. vs. Control	Anger	48 Prisoners	RET not sig.
Emmelkamp Brilman Kuiper Mersch (1986)		Exposure in vivo vs. RET vs. self instructional training	Agoraphobia	39 agora-phobics (18-56 yrs)	Exposure vivo sig. over RET
Rosenberg Brian (1986)		Cog. behav. modif. vs RET vs. unstructured	Alcohol abuse	22 male multiple DUI offenders	No sig. diff. between treats

Name/Year	Comparison	Problem	Subjects	Outcome
Ayres Hopf (1987)	RET vs. SD vs. VIS	Communicat. Anxiety	59 undergrads	RET & SD sig.
Mahrer Nadler Stalikas Schachter (1988)	Client-Ctr'd. vs. RET vs. experient. psychother.	Multi-symp.		
Malouff Lanyon Schutte (1988)	Prob. Solving vs. RET vs. wait list control	Divorce	42 seperated or divorced adults	Treat. sig. over control
Bernard Kratachwill Keefauver (1983)	RET + self instructional training	Chronic hair pulling	17 year old female	Treat produced sig. decrease in behavior
Marrazo Hickling Sisen (1984)	RET + bio-feedback	Migaine headache	15 yr. old female	RET sig.
Ray Friedlander Solomon (1984)	Group RET + Group Education + Individual counseling W/ cognitive behavior focus + A.A. option	Alcoholism	62 male alcoholic veterans	results not conclusive
Warren Smith Velten (1984)				
Gerber (1984)	RET + cognitive behavior modification vs. control	Impulsivity	40 3rd, 4th & 5th graders -- emotionally disturbed & learning disabled	No sig. diff. between treatments

Year/Name	Comparison	Problem	Subjects	Outcome
Billotti (1984)	REI vs. REI + hypnosis vs. instructional control	Public speaking	47 undergrads	REI + hypnos. sig
Dekker Dronkers Staffeleu (1985)	RET + masterbat. exerc. + soc. skills training	sexual dysfunct.	40 males w/sexual dysfunc.	RET sig.
Floyd Floyd (1985)	RET + Conj. Family Therapy	Bulimia	25 bulimic clients (15-35 yrs.)	RET + Conj. Fam. Ther. sig.
Baker (1985)	Behav. Modif. + RET vs. Trans. Analy. + Gestalt vs. Control	Multi-symp.	80 private practice out-pts. w/troubled relations.	all treats sig.
Becherer (1985)	RET vs. study skills vs. control	Low academic achievement	141 college students on academic probation	No sig. differ. between groups
McGee (1985)	RET + rat. behav. ther. + REI + rat. self-analy. vs. control	Stress	61 M & F middle-aged married voluneers	RET sig.
Neuman (1985)	Exposure in imagery vs. thought stopping vs. RET	Obsession	six clients	results not conclusive
Greven (1986)	RET vs. alcoholics annonymous	Alcoholism	60 male veteran alcoholics	RET sig.
Mathews-Larson Parker (1987)	Biochemical Restoration + RET	Alcoholism	100 alcoholics	Treat sig.

Year/Name	Comparison	Problem	Subjects	Outcome
Maes Schlosser (1988)	Health ed. + Rat. Emot. Behav. Mod. vs. control	Stress	10 adult asthma patients	treat prod. sig. improve.
Presby-Kodish (1988)	Rat. Emot. techniques + general semantic techniques	Women in 2nd marriages	Female in second marriage	Treat sig.
Ellis (1989)	RET vs. Adlerian Individual Psychology	Suicide	27-year old female	Success interven

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Vita

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The authors also has firsthand experience working in the counseling field. She has completed an internship at the Read Mental Health Center in Chicago, IL, where she interviewed and evaluated incoming patients. She has also gained experience counseling adolescents and families from her internship at Spectrum Youth and Family Services in Hoffman Estates, IL. Prior to these experiences, the author also worked as a houseparent at the Chapin Hall for Children in Chicago.

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A REVIEW OF OUTCOME STUDIES OF RATIONAL EMOTIVE THERAPY 1982 - 1989

In 1977, Raymond DiGuiseppe and Norman Miller provided a review of the literature assessing the effectiveness of Rational Emotive Therapy. In 1983, a continuation of this research was accomplished by Drs. Terrance McGovern and Manuel Silverman for outcome studies conducted from 1977 through mid-1981. This thesis is meant as a continuation of these reviews by assessing recent research (1982-1989) on the effectiveness of Rational Emotive Therapy.

A general review of the background theory and technique of Rational Emotive Therapy is provided. The research is divided into three sections. A review of outcome studies that do not compare Rational Emotive Therapy with other types of treatment, a review of outcome studies that do compare RET with other types of psychotherapy, and a review of Rational Emotive outcome studies that either combine RET with other therapies or are not appropriate for the first two sections.

In addition, a review of previous research, a discussion of the research presented in this thesis, and reccommendations for future research are included.

A computer search of psychological abstracts was the

primary method used to obtain the research discussed in this thesis. While the professional journals were available for personal in-depth review, the dissertations were unpublished and dissertation abstracts were utilized.

DiGiuseppe and Miller's original review included a total of twenty-two studies. This number more than doubled for McGovern and Silverman, who reviewed forty seven studies in their 1983 article. This thesis includes eighty-nine studies. Over half of these studies resulted in positive findings in favor of RET.

There does appear to be some improvement in the research conducted since 1982. Increases were noted in the number of control groups used in the current research as well as the number of follow-up studies. There also appears to be an improvement in the comparison of RET with other forms of therapy and the number of problem areas that RET has been tested in has increased. A decrease in post-test only studies and an increased variety of subjects have also improved the current research.

Issues such as socioeconomic status and I.Q. of subjects, duration of treatment and lack of longitudinal studies remain unaddressed. It is suggested that future researchers concentrate on these specific problems to improve the credibility of RET.

This review coincides with the previous findings that RET is a valuable, effective therapy that warrants increased research to broaden its application.

The Thesis submitted by Margaret McCarthy has been read and approved by the following committee:

Dr. Manuel Silverman
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The final copies have been examined by the Thesis Committee and the signatures which appear below verify the fact that any necessary changes have been incorporated and that the Thesis is now given final approval by the Committee with reference to content and form.

The Thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master's of Art.

3/15/91
Date


Director's Signature

Date

Reader's Signature