

THE EFFECTS OF AN EDUCATIVE PROGRAM IN RATIONAL EMOTIVE
TECHNIQUES ON EARLY ADOLESCENTS

by

Frances A. Poe

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APPROVED:

J. F. Keller, Chairman

J. W. Croake

H. O. Protinsky

C. Y. Kramer

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CHAPTER I

Introduction

The field of psychotherapy is in a state of flux. Traditional psychoanalysis, with its extended and expensive treatment, is being questioned both as to its validity and its efficiency. During the past two decades, several new theories have been developed and promoted, each differing as to the "key" to personality change. Albert Ellis has developed one of the most radical departures from traditional psychoanalysis both in theory and techniques (Ellis, 1963). Rational Emotive Theory, as the name implies, incorporates aspects of both rational (cognitive) and emotive (expressive) theory and is concerned with helping people to better control and reduce negative emotions through re-education in more rational thoughts and evaluations of events.

Ellis states that Rational Emotive Theory is applicable and beneficial for almost all people - "normal" as well as neurotic and psychotic. The only limitations acknowledged for Rational Emotive Theory involve autistic or brain-damaged patients and those with serious mental deficiencies (Corsini, 1973). In such cases, lack of ability to communicate effectively prevents learning and application of Rational Emotive principles. Many experimental studies have been conducted which support Rational Emotive Theory with specific group samples (Jacobs, 1971; Brooking, 1973; Maultsby, 1973). However, the research applying Rational Emotive concepts to the adolescent age-group is very sparse, and at this time no experimentally controlled studies have been conducted using an educative program of Rational Emotive concepts with

a normal population of young adolescents.

The literature on adolescence in America today dwells on the conflicts, confusions, and instabilities of today's youth which result in deviant behavior, rebellion, or withdrawal on their part. It seems, then, to be an important group to consider both in evaluating the effectiveness of a psychotherapeutic theory and in attempting to alleviate the problems and anxieties that adolescents are experiencing.

Ellis argues that adolescence need not necessarily be a traumatic stage of growth, and that society has been improperly blamed for the conflicts and pressures facing youth today. He states:

There is a highly fashionable tendency today to place the emotional difficulties of the young adult squarely in the lap of society . . . there is some truth, but much falsehood to the belief that all problems of adolescence stem from social conditions. Understandably, they (adolescents) are not ecstatic, but there is no need to be miserable. (Ellis, 1971a; pp. 2-3).

This study will test Ellis' (1973a) theory and positive results will have implications both for expanded use of Rational Emotive Education in working with the adolescent age-group and for educative and training programs in Rational Emotive principles. If results show that adolescents can significantly decrease their irrational beliefs and negative emotions through Rational Emotive Education, then there are important indications in the fields of education, counseling, juvenile delinquency, and family relationships for helping adolescents deal effectively and rationally with the problems they are encountering in their daily lives. Negative results may indicate some limitations to the usefulness of Rational Emotive Theory with this age-group. It would certainly indicate the need for further research employing

Rational Emotive techniques with various groups of adolescents in various settings.

Purpose

The purpose of this study is to investigate the effectiveness of an educative program in Rational Emotive principles and techniques with early adolescents as a means of reducing irrational ideas and, thereby, reducing anxiety.

Definitions

In the present study the following definitions were used:

1. Rational Emotive Therapy: an active-directive therapy developed by Albert Ellis in which the client is shown how irrational beliefs create dysfunctional consequences and is taught how to dispute these irrational beliefs in order to replace them with more rational beliefs and feelings.
2. Rational Emotive Education: an educative process in which the principles and techniques of Rational Emotive theory are explained and practiced in order to increase rational thinking, feeling, and behavior.
3. Rational Behavior Therapy: a process of self-analysis and emotional re-education. The basic concepts and techniques are almost identical to Rational Emotive Therapy but have been expanded and modified by Maxie C. Maultsby (1974) for his professional use.
4. Irrational Idea: a form of absolutism, an unqualified demand or need that has no base in reality and that is not related to an observable, provable event.
5. Rational Emotive Imagery: a technique for projecting rational

thinking to future anxiety-provoking events in order to increase the possibility that one will think and feel rationally when such an event occurs. This technique allows a client to efficiently decondition himself to the stimuli which are eliciting the undesirable emotional response.

Theoretical Framework

In order to facilitate the presentation of theoretical material, the theoretical framework will be divided into two parts. The first section will focus on adolescence, and the second section will concentrate on Rational Emotive Theory.

Adolescence

Adolescence has been labeled by many psychologists and sociologists as a developmental stage of much stress and conflict (Alissi, 1972; Sieg, 1971; Rosenberg, 1965; Deitz, 1970). This factor has been stressed by researchers who have pointed out that subjects below college age were seldom self-initiated (Myers, 1971), and despite a multiplicity of reported problems often exhibited little motivation to change. Myers (1971) further expressed concern for the effect of this lack of self-motivation on any measurement process. Many reasons and theories have been expounded to explain why adolescence is experienced as such a difficult growth period.

Probably the most obvious factor to consider when trying to understand the period of adolescence is puberty. Puberty is defined as "the period of age at which a person is first capable of sexual reproduction"

(Random House Dictionary, 1973). The process of arriving at sexual maturity involves many physical changes for both males and females. Our society greatly stresses sexuality and physical beauty and sets stereotypes for acceptable masculine and feminine traits. Therefore, this time of fast physical growth and change is usually accompanied by much inner anxiety over one's acceptability and attractiveness to the opposite sex and leads to a new competition between members of the same sex (MacLennan & Felsenfeld, 1968).

There is a preoccupation with self but with the emphasis on comparison with others and a stress on attractiveness, power, and success. Such a continual self-evaluation leads to very precarious self-esteem. Concern with self tends to lend a sense of urgency and immensity to each experienced event or problem, and frustration of each desire is seen as catastrophic since it adds one more burden to a fragile self-concept (Levinson, 1973).

In traditional societies, when a child reached puberty he then made the transition from childhood to adulthood in terms of social roles and responsibilities. This clean, recognizable, and complete transition to adulthood has not been maintained in our modern American culture, and the term adolescence refers to:

the transitional period between puberty and adulthood in human development, extending mainly over the teen years, and terminating legally when the age of majority is reached. (Random House Dictionary, 1973).

This transition period has become extended for a longer and longer time as the educational level for most jobs increases (Alissi, 1971). There is also a discrepancy as to when the "age of majority" has been achieved

since drivers' licenses, drinking, voting, and military service obligations all may have differing age requirements. The conflict, then, between physical maturity and social rights and responsibilities leaves the adolescent in a limbo state with no strong identity or purpose (Alissi, 1972; Sieg, 1971; Semmens, 1970; Conger, 1973; Schneiders, 1967). This status ambiguity is often cited and blamed for the stresses, conflicts, and anxieties of adolescence in American society today (Rosenberg, 1965; Deitz, 1970; Alissi, 1972; Sieg, 1971).

Rosenberg (1965) concluded that self-esteem and anxiety in adolescents are interrelated. Not only does anxiety breed low self-esteem, as theorized by Horney, but this process is reversible. For the adolescent, status ambiguity leads to a questioning of personal worth and a fragile self-image. The adolescent may compensate by presenting a false front to others, but this is anxiety-producing in that it is an emotional strain to always pretend, and there is an underlying fear that the image might slip. Such a feeling of vulnerability leads to anxiety over possible criticism or failure.

Interrelated with these factors is the whole issue of the social context in which American adolescents are developing. Adolescent rebellion is accounted for by analyzing and evaluating our current socio-political-economic system with its stress on materialism, obvious corruption and immorality, irrelevant education, etc. The conclusion seems to be, "What else could you possibly expect?" (Klein, 1972; Semmens, 1970).

A third factor involved in the adolescent period is that of wants and needs in interpersonal relationships. The peer group begins to take

precedence over parents and family as the reference group for standards, support, and identity (MacLennan & Felsenfeld, 1968; Munns, 1972). This may lead to anxiety if peer group acceptance is not easily obtained. There is a dependence-independence conflict to be resolved in separating from one's original family and starting a new one. Values, standards, and commitments must be explored and developed.

During adolescence, cognitive changes are also occurring in the individual. It is during this stage that one develops the ability to make hypotheses, to conceptualize and generalize beyond one's immediate experience. This ability leads to an awareness of the discrepancy between the actual and the possible and may contribute to feelings of anxiety as the adolescent assesses his abilities and potential in comparison with others (Conger, 1973; Adams, 1973).

Throughout the literature on adolescence, the terms self-image and self-concept recur frequently. The physical growth and changes, the social conflicts and frustrations, the interpersonal needs and desires, the intellectual and conceptual development, all are occurring simultaneously, and hopefully, a new adult will emerge with a positive self-concept and respect for himself.

Therefore, adolescents in our culture experience a simultaneous interaction of internal and external pressures and conflicts which may lead to high anxiety and an unstable or negative self-image. In this context Rational Emotive Theory and Education may offer some workable concepts and techniques for enabling the adolescent to more successfully cope with himself and his environment.

Rational Emotive Theory

Rational Emotive Theory has been developed by Albert Ellis as a theoretical model for both psychotherapy and for educational purposes. Central to this theory is the concept that emotional disturbance is not created by outside events or people but is a result of one's cognitions or thoughts and the internal evaluations of events that a person makes. Ellis rejects the traditional "medical model" of psychotherapy which treats emotional disturbance as an illness which the therapist attempts to cure. In such a deterministic model, the therapist assumes all responsibility for change and the client becomes an object to be changed. In contrast to this, Ellis (1963) believes that each person is responsible for and has the ability to control his thoughts and thereby his emotions and behavior.

Rational Emotive Theory is a system of re-education designed to challenge irrational thinking and replace it with more rational ideas resulting in a reduction of negative emotions, especially anxiety. It stresses the importance of not only understanding the concepts intellectually, but rigorously applying them to one's daily life. The role of the counselor is largely educative, and the client takes a more active and responsible role in self-change. Rational Emotive Theory has largely been applied in a therapeutic context. However, it is equally applicable as a preventive approach in an educational setting. Therefore, the term Rational Emotive Education will be employed.

Ellis' theory incorporates aspects of both cognitive and expressive theory yet remains distinct from each. Ellis (1972) contends that while

expressive-emotive techniques are helpful in encouraging honesty, pleasure, and risk-taking, they lead to a lack of discipline and a low frustration tolerance. When the focus is on accepting and expressing feelings, the interrelation of thoughts, emotions, and behavior is not considered. Basic personality change requires long-term goal change and a method that includes discipline as well as pleasure (Ellis, 1972).

Rational Emotive Theory differs from other cognitive behavior principles both in its theoretical and practical emphasis. Behavior modification focuses on symptom removal with the assumption that change in behavior will lead to change in attitude. Ellis is concerned with affecting basic personality change, with changing "the basic irrational thinking processes which underly all kinds of fears that he (the client) may have" (Ellis, 1963; p. 96).

According to Rational Emotive Theory, man innately possesses both rational and irrational tendencies (Ellis, 1963). Man has a tendency to take simple wants and desires, such as for love, approval, or success, and convert them internally into demands or "dire needs". An infant requires love, warmth, and protection in order for adequate physical and mental development to occur. However, after infancy a child continues to demand these qualities from other people. At the same time, the child is indoctrinated by his parents with irrational ideas relating to himself, other people, and the world around him, encouraging him to expect perfection, love, and pleasure for himself from others. Such demands are impossible to fulfill and lead to feelings of anxiety, depression, and hostility.

Ellis states that even after childhood, people continually rein-

doctrinate themselves with these irrational ideas through self-talk or negative thoughts about people and events. He believes that perceiving, thinking, emoting, and acting are not separate entities but part of an interacting cycle and must be considered as a whole. To understand self-defeating negative behavior, one must understand the thought processes and emotions that precede it. There are three basic irrational ideas which encompass most negative thoughts about external events, and which lead to negative emotions and behaviors. They are:

1. The need to be perfect and competent in order to be worthwhile. This idea is central to our competitive society and leads to feelings of anxiety and blaming whenever mistakes are made.
2. The need to experience pleasure and not pain. This idea leads to unreasonable and impossible demands on others and on the environment and to anger when such demands are not met.
3. The need to be treated justly at all times. Such false expectations do not coincide with reality and lead to much frustration and depression when they are not met (Ellis, 1973b).

Since these ideas have been learned, and since man also has rational tendencies, he is capable of affecting change within himself. The goal of Rational Emotive Education is to induce the individual "to internalize a rational philosophy of life just as he originally learned or internalized the irrational views of his parents and his community" (Ellis, 1963; p.95). Rational Emotive Education teaches individuals to effectively isolate and dispute these irrational ideas and to substitute more rational, neutral ideas. Since emotions result from cognitions, this process will greatly diminish the anxiety, anger, and depression

which are central emotional disturbances for all people.

In order to accomplish these objectives, Ellis (1963) has developed an active, directive process of re-education which is applicable both to treatment of severely disturbed individuals in a therapeutic setting and of "normal" people who desire to increase their rational thinking in an educative or preventive setting. The goal in either case is not merely to eliminate a symptom, but also to help the individual modify his belief and thought systems that are creating such emotional disturbances (Corsini, 1973).

In order to assist an individual to understand how thoughts and emotions are interrelated, Rational Emotive Education uses an ABCDE model in dealing with any presented emotional disturbance (Ellis, 1972). (A) is a negative Activating Event. Most people think that it is such external events that cause Emotional Consequences (C). However, Ellis states that between A and C, an individual interjects his Belief System (B) which may contain a mixture of both rational and irrational thoughts. Negative emotions result when one attaches irrational self-talk to the event, which is usually related to one of the three basic irrational ideas listed previously. Rational Emotive Education confronts an individual with these irrational thoughts and encourages him to challenge and Dispute (D) them and to replace them with more rational thoughts and beliefs. The (E) section is the Emotional Goal for the future. The individual is encouraged to "adopt new philosophies of living, thus losing feelings of anxiety" (Ellis, 1973b).

Rational Emotive Theory can be beneficial whether used in an educational or a therapeutic setting as a means to reduce anxiety

through a reduction of irrational ideas. The period of adolescence, with its inner turmoil and conflict, is a time in which Rational Emotive Education could be especially helpful in stimulating, encouraging, and implementing such changes and thereby facilitating more positive emotional well-being.

Rationale and Hypotheses

Ellis (1973a) postulates that children are indoctrinated with irrational ideas concerning one's need for universal love and approval, for perfect competency, and for fairness and justice. They continue to re-indoctrinate themselves throughout adolescence and adulthood. Sources disagree as to the causes, the factors involved, and the possible means of alleviating the pressures and tensions brought on by these irrational ideas. However, both researchers and field workers seem to be in agreement that in our present society, adolescence is experienced as a difficult, confusing, and turbulent period of growth. Inner conflict and confusion lead to tension, which manifests itself in anxiety. Therefore, it is hypothesized that:

Hypothesis 1: There will be no differences in irrational ideas or anxiety levels between the experimental and control groups before the Rational Emotive Education program begins.

Rational Emotive Education is based on a process of challenging and disputing one's irrational belief system and replacing these ideas with more rational thoughts. This new, more rational belief system must be internalized if it is to bring about any lasting changes in emotion and resulting behavior. Past studies have shown the effectiveness of

such an educational program with subjects of other age groups (Jacobs, 1970; Brooking, 1973; Maultsby, 1973). Therefore:

Hypothesis 2: Adolescent subjects who participate in the Rational Emotive Education program will show a greater decrease in irrational ideas than subjects in the control group.

One of the basic tenets of Rational Emotive Education is that cognitions, not outside events or people cause emotions. Anxiety is the negative emotion resulting from irrational thoughts about an event. Therefore, if subjects who participate in the Rational Emotive Education program reduce their irrational ideas, they will exhibit a decrease in anxiety. It seems logical, then, to hypothesize that:

Hypothesis 3: Adolescent subjects who participate in the Rational Emotive Education program will show a greater decrease in anxiety than subjects in the control group.

CHAPTER II

Review Of The Literature

Comparative Research on Psychotherapy

At the present time there are a variety of therapy and counseling models for working with adolescents many of which conflict with, contradict, or reject the others. Very few comparative studies have been attempted. One major study by DiLoreto (1971) explored the comparative effectiveness of Systematic Desensitization, Rogerian Therapy, and Rational Emotive Therapy on introverts and extroverts, using different therapists trained in each method and testing for anxiety reduction. He found that Systematic Desensitization was equally effective with both introverts and extroverts, Rational Emotive Therapy was more effective with introverts, and Rogerian techniques tended to help extroverts more. This study has been praised as a pioneering attempt in comparative studies, but the results have been questioned and the method criticized because of the variables of therapist personality and expertise involved, and because therapy techniques and outcome are difficult to quantify and analyze comparatively (DiLoreto, 1971).

Albert Ellis (1957) compared three types of psychotherapy - orthodox psychoanalysis, psychoanalytically oriented psychotherapy, and Rational Emotive Therapy. His comparison involved the effectiveness of the same therapist (Ellis) over a period of time as his theoretical stance and techniques changed. He concluded that Rational Emotive Therapy was the most effective in the shortest amount of time in

achieving basic personality change. This study, too, can be criticized because of the bias of the author at the present time to Rational Emotive Therapy and because it was not carried out within an experimental design with rigorous comparative testing and analysis.

At this current time, with inadequate methods and procedures available for significant comparative studies of psychotherapy it appears more valuable not to attempt to designate one therapy as THE best, but rather to concentrate on evaluating a therapy according to its effectiveness in achieving positive personality change or growth as measured by instruments relevant to that theory. Ellis stated, "Rational Emotive Therapy is not the only effective method of therapy. It is probably one of the most effective techniques that has yet been invented" (Ellis, 1963; p. 119). In order to determine the appropriateness of this statement for the present study, it is necessary to consider the available research on psychotherapy as it applies to adolescents and Rational Emotive Therapy.

Research on Psychotherapy with Adolescents

Anxiety, anger, and depression are considered the central emotional disturbances according to Rational Emotive Theory which postulates that these negative emotions can be significantly diminished through a rather brief, active-directive educational process. Zaharis (1972) studied the effects of an intensive experimental learning environment on marginal students. He concluded that attitudes can be altered in a brief period of time if there is a "dramatic intervention" in previously held

attitudes. Hannun (1972) concluded that through cognitive behavior therapy negative self-thoughts can be reduced and positive evaluations increased with a resulting change in overt behavior. The thought-stoppage technique used is quite similar to the cognitive approach underlying Rational Emotive Theory.

Smith (1972), in a study involving "The Effects of Group Counseling on Behavior of Juvenile Probationers", found that counseling can produce positive changes in both attitudes and behavior, but that level of counselor training did not determine counselor effectiveness. These conclusions support Ellis' hypothesis that long-term therapy is not necessary for personality change, and that individuals, if introduced to more rational ways of thinking through an educational process, can make many significant changes in themselves and need not rely totally on an "expert" therapist to make them better.

In a related article on working with juvenile delinquent youth, Fleischer (1972) asserted the need for the therapist to be active, involved, and direct in his approach. He should deal with reality - with concrete behaviors and decisions - explaining rationally the consequences of certain behavior. Fleischer (1972) stressed that adolescents should always be treated with respect, and once the alternatives are presented straight-forwardly, the ultimate choice and responsibility should lie with the adolescent. Ellis shares this philosophy of the potential of each person for his own choices and behaviors. Rational Emotive Education is active and directive in teaching individuals how to develop more rational and effective cognitive-emotive processes.

A fairly comprehensive study by Greene and Crowder (1972) combined aspects of Behavior Modification, Reality Therapy, and Rational Emotive Therapy in a group setting with adolescents. Goals were developed for each client which included the following elements: open and direct communication, acceptance of personal responsibility for behavior and feelings, and achievement of adult status through adult behavior. All of these goals are important in Rational Emotive Therapy. The experimenters stressed that "we do not contend that this is a fair world or that we can make it such" (Greene & Crowder, 1972; p. 58). However, they taught the principles of Rational Emotive Therapy to help the adolescents cope with and control their emotional reactions, and concluded, "We have found that adolescents readily grasp and utilize Rational Emotive Therapy principles" (Greene & Crowder, 1972; p. 60).

Research Studies Using Rational Emotive Theory

Carlson (1969) and Burkhead (1970) have both conducted laboratory controlled studies of the effectiveness of cognitive control using Rational Emotive Therapy on reducing negative affect, specifically anxiety. Both used the Galvanic Skin Response as a physiological measure of arousal or emotion. Carlson obtained significant results and concluded, "responses of human subjects are never directly activated by stimuli but always involve some kind of cognitive processing" (Carlson, 1969; p. 1). Burkhead (1970) found that a therapist can manipulate the subject's belief system towards either positive or negative emotional responses, and that Rational Emotive Therapy procedures are highly effective in reducing negative emotions. He also found, contrary to

DiLoreto (1971), that Rational Emotive Therapy was equally effective with introverts and extroverts.

Morley and Watkins (1974) conducted a study using Rational Emotive Therapy and a modified version of Rational Emotive Therapy with no direct challenging involved, with subjects labeled as internals or externals as defined by Rotter (1954). They found that external personalities demonstrated more positive change when the therapy involved an active, directive challenging of irrational ideas. In contrast, the internal personalities tended to resist such direct confrontation and showed more positive change when merely presented with Rational Emotive Theory and allowed to make individual decisions regarding beliefs and behaviors.

Maultsby has adapted many of Ellis' concepts into a process he calls Rational Behavior Therapy. From this reader's understanding of Rational Emotive Therapy (Ellis) and Rational Behavior Therapy (Maultsby) there are no significant differences in basic concepts or process between the two theories but only differences in terminology. Therefore the researcher will refer only to Rational Emotive Therapy in this paper. Maultsby has conducted several studies on the effectiveness of Rational Therapy. In using group vs. individual therapy in an experimentally controlled design, he found that "the only prerequisite for therapeutic benefit from Rational Behavior group therapy is a clear understanding of how to benefit from the experience and that the group experience be less unpleasant than the neurotic life experiences which result in the patient coming to the group" (Maultsby, 1972; p. 30). He listed five reasons for the importance of group therapy:

1. group acts as a non-threatening, problem-solving experience.
2. group reveals the universality of problems.
3. group represents a therapeutic microworld.
4. each client can witness progress of other group members.
5. each client receives reinforcement of rational learning by practice. (Maultsby, 1972; p. 29).

Grossack (1965) supported such conclusions on the effectiveness of Rational Emotive Therapy. He stressed the importance of the present and future orientation and the emphasis on self-help. The client is encouraged through useful direction to change himself and solve his own problems, so that he completes therapy as a more independent and responsible individual as well as happier and more rational.

Homework assignments have been shown to be beneficial, and Maultsby (1971b) found a positive correlation between diligence in completing homework assignments and progress in therapy. Rational Emotive Imagery was developed for projecting one's newly developed rational thinking to future anxiety-producing events and to, thereby, increase the possibility that one will think and feel rationally when such an event occurs. "Mental practice (REI) can in many ways be as effective a self-teaching technique as the corresponding real-life experience" (Maultsby, 1971a; p. 24).

In two studies conducted jointly with students, Maultsby (1973) has shown the effectiveness of teaching the principles of Rational Therapy to college students as a course in Rational Self-Counseling. A pilot study was conducted with high school students but not enough participation (N=7) occurred to indicate significant results. Conner (1970) conducted a study evaluating the effectiveness of Rational Emotive Therapy with adolescent probationers. She found no significant

changes in the experimental or the control group after treatment. However, the study involved only three lectures by an unidentified speaker on Rational Emotive Theory, and attendance by the subjects was forced. One instrument was used to measure attitudes towards self, the law and others, and one instrument measured Rational-Irrational ideas. Neither reliability nor validity testing was mentioned for either instrument.

Glicken (1968) has written an article asserting the need for and possibility of using Rational Emotive Education with elementary school children. He stated that traditional therapeutic techniques subtly reject the ability of a child to understand, communicate about, and cope with internal conflicts, and so impose an outside solution on him. In contrast to traditional concepts, Glicken affirmed that children, in his experience, can understand and apply the concepts of Rational Emotive Theory and benefit from it. He has practiced this method of therapy and "over the past two years the author has noted significant improvement in about 90% of all cases referred" (Glicken, 1968; p.266).

Ellis (1973d) suggested that preventive Rational Emotive counseling should be given on a regular basis to all students in order to decrease the possibility of developing personality maladjustments in later life. He stated that he has found Rational Emotive counseling more effective with older elementary children, but that even six year olds are able to benefit appreciably. Such successes have not been tested experimentally with an elementary age-group but are encouraging in their positive evaluation of the effectiveness of Rational Emotive Therapy with young children.

Two studies have been conducted specifically to test the effectiveness of teaching Rational Emotive principles in order to reduce anxiety and irrational thinking. These concepts are central to Rational Emotive Theory. Ellis stated that for personality change to occur, "the individual must learn to recognize his irrational, inconsistent, and unrealistic perceptions and thoughts and change these for more logical, more reasonable philosophies of life" (Ellis, 1963; p. 117).

Personality change:

occurs when an individual eliminates a significant proportion of his needless unrealistically based self-defeating reactions (especially intense, prolonged, or repeated feelings of anxiety and hostility) which he may consciously experience or whose subsurface existence may lead him to behave in an ineffective or inappropriate manner. (Ellis, 1963, p. 111).

Therefore, a reduction of irrational ideas is necessary for personality change to occur, and a reduction of anxiety is an outcome of positive personality change.

Jacobs (1971) conducted a Rational Emotive Education program using college sophomores, juniors, and seniors within a classroom setting. His groups met for five weeks, for one and one-half hours each. A Guide To Rational Living was used as a basic text, while also making use of homework assignments and group discussions. The State-Trait Anxiety Inventory, Irrational Ideas Inventory, and Mooney Problem Checklist were instruments used to test for change, and Jacobs found a significant decrease in anxiety, irrational ideas, and stated problems for the experimental group as compared to no significant change for the control group. Thus, it seemed possible to teach Rational Emotive principles to a group in a relatively short time

period with significant positive changes occurring.

In a later study, Brooking (1973) followed a format similar to Jacobs (1971) but with an elderly subject sample. The same text and instruments were used, but the educative program took place outside an institutional setting. Again, Brooking (1973) found a significant decrease in both anxiety and irrational ideas within the experimental group but no significant change for the control group.

CHAPTER III

Procedure

Selection of Subjects

The sample included thirty (30) subjects, aged fourteen and fifteen. Subjects were ninth and tenth grade students drawn from several religious and service institutions in Blacksburg, Virginia. The experimental group included fifteen ninth and tenth graders from the United Methodist Church who participated as a group in the Rational Emotive Education program for six weeks. The control group included fifteen ninth and tenth graders drawn from the Baptist, Lutheran, and Episcopal churches, and a Blacksburg Girl Scout troupe.

The sample originally included thirty-eight subjects, nineteen in the experimental group and nineteen in the control group. Only those experimental subjects who had attended all six group meetings were used, and so the final subject sample included fifteen in each group. Participation by both experimental and control group subjects was solicited by the researcher. Each group was asked if they would be interested in participating in a six week study group to discuss why people act and feel the way they do and to consider alternative emotions and behavior.

The United Methodist Youth group indicated an interest in participating and a willingness to make a six week commitment, and so that group was used as the experimental group. Members of the four other organizations agreed to participate by completing questionnaires

explained as "general attitudes towards one's self and other people". From the large number of potential control group subjects a group of nineteen was selected by matching experimental and control group subjects for age, sex, socio-economic status, and pretest scores on the two instruments, the State-Trait Anxiety Inventory, and the Adult Ideas Inventory. See Table 1 for descriptive characteristics of the subject sample.

Procedure

All thirty-eight subjects were given a pretest, which included the Adult Ideas Inventory and the Trait portion of the State-Trait Anxiety Inventory, as well as biographical information (see Appendix A). The fifteen experimental subjects participated in six weeks of Rational Emotive Education, meeting for one and one-half hours each week. These meetings were organized and led by the researcher. The six sessions were devoted to teaching and discussing the principles of Rational Emotive Theory, with Ellis' book, A Guide To Rational Living being assigned as background material. Homework assignments utilizing the ABCD process of challenging irrational ideas were completed for the last three weeks and discussed in the group. Sessions included information-giving by the researcher, group discussions, work done in pairs and triads, role-playing, and Rational Emotive Imagery.

Meeting I: The pretest of the State-Trait Anxiety Inventory and the Adult Ideas Inventory and biographical information was given at the beginning of the meeting. The meeting was designed to be a general introduction to Rational Emotive Education, and an attempt to promote

TABLE I

Descriptive Characteristics of Adolescent Subjects

Characteristics								
Group	Age	%	Sex	%	Grade	%	Grade Average	%
Experimental	14	67	M	27	9th	67	A	60
	15	33	F	73	10th	33	B	40
Control	14	40	M	27	9th	55	A	40
	15	60	F	73	10th	45	B C	54 6
Characteristics								
Group	Father's Education	%	Mother's Education	%	Father's Occupation	%	Mother's Occupation	%
Experimental	College	6	high school	6	Professional	100	Professional	48
	Post-graduate	94	college	67	Skilled labor	0	Skilled labor	6
			post-graduate	27	Semi-skilled labor	0	Housewife	46
Control	College	20	high school	20	Professional	100	Professional	33
	Post-graduate	80	college	60	Skilled labor	0	Skilled labor	27
			post-graduate	20	Semi-skilled labor	0	Housewife	40

the openness and honesty necessary for group discussion of emotions and interpersonal behavior. As often as possible, theoretical principles were introduced and explained through examples relevant to the adolescents' situations and experience. The researcher also encouraged the subjects to write down thoughts, reactions, and questions and to share these in pairs or triads before returning for a brief group discussion or summary. This was done to minimize the feelings of being threatened before the group, and to aid the subjects to bring their thoughts together. A Guide To Rational Living was distributed at this meeting and weekly reading assignments were made as the basis of the next week's discussion. The reading assignment for the first week was Chapters 2-5 which included a general theoretical introduction to Rational Emotive Theory, and examples from Ellis' experience.

Meeting II: The meeting began with a discussion of the thinking-emoting-acting cycle as discussed in the text and general reactions to Ellis' ideas. A hand-out of Eleven Irrational Ideas was then distributed and discussed. Again, the group broke into pairs to discuss personal examples relating to the eleven irrational ideas. Chapters 6, 7, 12, and 17 were assigned for the next week with the focus on blaming.

Meeting III: The basic ABCD format of pinpointing and challenging irrational ideas was presented followed by two examples discussed as a group. The group then broke into triads. Each triad was given a hand-out of another event (A) and emotion (C) and was asked to fill in the possible self-talk (B) and dispute (D). The researcher parti-

cipated in and responded to questions and problems of various small groups. Chapters 8-10 were assigned for the next meeting with the focus on the dire need for approval. Each subject was asked to write down one ABCD process involving some situation during the coming week in which he/she was angry or blamed others or one's self.

Meeting IV: This meeting focused on a discussion of dire need for approval as it affected these adolescent subjects in their daily life. Specific situations were considered and discussion centered on the self-talk involved and possible ways of challenging the irrational ideas and replacing them with more rational beliefs. Examples were discussed as a group and in pairs. Individual homework assignments were turned in, and subjects were asked to try another ABCD process as they gained more experience in challenging their own irrational ideas. This homework assignment was to focus on one's need for approval and liking by one's friends (peer group). Chapters 11-16 were also assigned with the focus on fears of failure.

Meeting V: The group divided into pairs to discuss their homework assignments. They were asked to role-play a client-counselor situation and help each other further challenge and dispute the irrational ideas. A group discussion followed concerning an unresolved problem by one member. Finally, there was a brief introduction to the purpose and techniques of role-playing and two members acted out a prepared mother-daughter situation. Then each participated separately in a client-counselor situation with another group member in an attempt to show that in any dispute, both partners may have irrational ideas and expectations. Chapters 15, 18 and 20, which focused on anxiety and

accepting reality were assigned, and one final ABCD process was assigned that related to some personal feeling of failure or worry about future accomplishments.

Meeting VI: The final meeting began with another role-playing situation involving a girlfriend-boyfriend situation with the group acting as counselor for each participant afterwards. A brief discussion of Rational Emotive Imagery was followed by a review of the general principles and concepts of Rational Emotive Education. The members then completed the posttest questionnaires and participated in a brief evaluation session in which both reactions to theoretical concepts and the method of presentation were discussed.

The control group did not meet as a group, but all subjects participated in their regular weekly religious or service programs. This group participation was included to help control for the factor of simply participating in a group experience and the effects that might have on changes in pre- and posttest scores. There was a one week overlap between the dates of administration of the pretests and posttests for the various groups; however, the six week time interval between the pre- and posttest was held constant for all subjects. The researcher originally planned to administer all the pretests on the same day; however, due to the large variations in pretest scores on the two instruments and the lack of participation by one group of potential control group subjects, it was necessary to contact two further high school groups and administer the pretest to them on the following Sunday. This delay was felt to be justified in order to insure that the experimental and control groups could be matched as shown in Table 1

and have no significant differences in mean pretest scores on the two instruments.

Instruments

Two standardized instruments were used: the Trait scale of the State-Trait Anxiety Inventory and the Adult (Irrational) Ideas Inventory. Spielberger (1970), who developed the State-Trait Anxiety Inventory, differentiates between State and Trait Anxiety. State anxiety refers to:

A transitory emotional state or condition . . . that is characterized by subjective, consciously perceived feelings of tension and apprehension and heightened nervous system activity. . . . trait anxiety refers to relatively stable individual differences in anxiety proneness in the tendency to respond to situations as threatening with elevations in the A-State intensity. (Spielberger, 1970; p.3).

This study used the Trait test. Since it was designed to test "relatively stable differences in anxiety proneness", a significant decrease in score would be an important indicator of a decrease in one negative emotion. This Inventory has been tested and found to have high test-retest reliability and to have a high degree of internal consistency. Test-retest reliability data for college students ranged from .73 to .86. Internal consistency, as measured by alpha coefficients for the State Trait Anxiety scales, ranged from .89 to .92 for high school students. The median A-Trait item-remainder correlation, another measure of internal consistency, was .54 for the normative sample of high school students (Spielberger, 1970).

Research has shown a relatively high correlation between the A-Trait scale and other anxiety measures, thus indicating high external

validity. The correlation between the A-Trait scale and the IPAT Anxiety Scale was .75 for college females and .76 for college males, while the correlation between the A-Trait scale and the Taylor Manifest Anxiety Scale (TMAS) was .80 for college females and .79 for college males. There have not been intercorrelational studies conducted with high school students using these three anxiety measures.

The second instrument used was the Adult Ideas Inventory, developed by Fox and Davies (1971) for use specifically with Rational Emotive Therapy in order to measure changes in rational thinking. The sixty item Adult Ideas Inventory was tested for reliability by administering it to university students in a test-retest situation over a three week interval. The resulting Pierson correlation-coefficient was .767 and the Kuder-Richardson formula 20 had coefficients of .743 on pretests and .729 on posttests.

Construct validity was determined by comparing the Adult Ideas Inventory with Zingle's original Irrational Ideas Inventory, yielding a correlation of .70. Validity tests were also administered comparing Adult Ideas Inventory scores from mental hospital patients and alcoholics with those of a random sample of residents in a northern Canadian city. Using the Sheffé multiple comparison of main effects, it was determined that the mean score of the normal sample differed significantly from the mean scores of both the mental hospital patient sample and the alcoholic sample at well beyond the .01 level. This is cited as supportive evidence of the validity of the Adult Ideas Inventory as a measure of rational-irrational thinking as defined in Rational Emotive Theory.

Treatment of Data

A total score on the Adult Irrational Ideas Inventory and the State-Trait Anxiety Inventory was computed for each subject in both the experimental and control groups. A Wilks' criterion test (Wilks, 1932) was performed to determine whether there were significant differences between the mean pretest scores of the two groups on both instruments. Wilks' criterion tests were again performed on the mean posttest scores to determine if there was a significant difference in changes in mean scores for either group. Alpha was set at the .05 level for all statistical tests.

CHAPTER IV

Results and Discussion

Preliminary Analysis

Once the experimental and control group subjects had been selected, they were matched as a group for age, sex, grade, academic achievement, and for parents' education and occupation (see Table 1). All subjects were fourteen or fifteen years of age, in ninth or tenth grade, were A or B students, and at least one parent was in a professional occupation.

The subjects were given a pretest consisting of the Adult Ideas Inventory and the State Trait Anxiety Inventory. Scores on each instrument were computed for each group, and a preliminary analysis of data was performed to determine if the pretests yielded significant differences for the experimental and control groups. As shown in Table 2, there were no significant differences between the means of the two groups on the pretest scores. However, there was a wide variation in scores, as noted by the standard deviation for each group on both instruments.

This finding by preliminary analysis of no significant differences on pretest scores confirmed Hypothesis 1. Non-significant differences between groups on pretest scores was also necessary with the small number of subjects in this sample in order for the statistical tests to determine significant changes after treatment.

Final Analysis

TABLE II

Pretest Analysis of Adult Ideas Inventory
and Trait Anxiety for Adolescent Subjects

Group	Instruments				U value for combined pretest scores
	AII Mean Score	AII Standard Deviation	Trait Anxiety Mean Score	Trait Anxiety Standard Deviation	
Experimental	158.533	17.971	35.267	6.386	.992 *
Control	161.067	14.868	36.067	5.457	

* (not significant difference at .05 level)

Following the six weeks of treatment, a posttest including the same two instruments was given to both the experimental and control groups. Again, a Wilks' criterion test was performed comparing pretest and posttest scores for both groups to determine if there had been a significant change in scores for either group following treatment. As shown in Table 3, there was a decrease in mean scores on both instruments for both groups with very similar small decreases in score on the State-Trait Anxiety Inventory for both the experimental and control groups. On the Adult Ideas Inventory, the experimental group showed a decrease of -10.6, more than twice the decrease of the control group which showed a decrease of -5.2. A decrease on the State-Trait Anxiety Inventory indicated a decrease in anxiety, and a decrease on the Adult Ideas Inventory indicated an increase in rational thinking.

Despite the difference of over five points in mean score change on the Adult Ideas Inventory, the statistical analysis showed no significant differences between the two groups in mean score change over time. This is explained by the wide variation in posttest scores within both the control and experimental groups which offset the mean score differences between the two groups. As seen in Table 3, the standard deviations for the Adult Ideas Inventory were 14.922 and 14.250 for the experimental and control groups respectively, and the standard deviations for the State-Trait Anxiety Inventory were 4.039 and 4.000. The λ value was .962 for the posttest comparison, and in order for the results to be significant at the .05 level the λ must be less than .801. A λ value on a Wilks' criterion test is equivalent to a combined F value of 1.036, which also was not significant at the .05 level.

TABLE III

Analysis of Mean Score Changes on Posttest
of Adult Ideas Inventory and Trait Anxiety for
Adolescent Subjects

Group	Instruments				U Value for combined posttest mean score change
	AII Mean Score Change	AII Standard Deviation	Trait Anxiety Mean Score Change	Trait Anxiety Standard Deviation	
Experimental	-10.600	14.922	-1.800	4.039	.962 *
Control	-5.267	14.250	-2.000	4.000	

* (no significant difference at .05 level)

Discussion of Results

Hypothesis 1 stated that there would be no significant differences in irrational ideas or anxiety levels between the experimental and control groups on pretest scores. The hypothesis could not be rejected, as shown in Table 2 of the Preliminary Analysis.

Hypothesis 2 stated that the experimental group subjects would show a greater decrease in irrational ideas (increase in rational thinking) than subjects in the control group. The null form of Hypothesis 2 could not be rejected and it was concluded that significant differences did not exist between the two groups even after the experimental group received the treatment. Results show that for the experimental group there was a greater mean score decrease than for the control group (Table 3). However, these results were not significant at the .05 level due to the large variation in posttest scores for both the experimental and control groups.

Hypothesis 3 stated that the experimental group subjects would show a greater decrease in anxiety than subjects in the control group. The null form of Hypothesis 3 could not be rejected, which meant that significant differences in anxiety did not exist between the experimental and control group subjects following the treatment. Results showed that both the experimental and control groups experienced a very similar small decrease in mean score change with the experimental group decreasing a mean 1.8 points and the control group decreasing a mean 2.0 points. Again, these results do not indicate a significant decrease for either group when compared to pretest scores.

These findings (Hypotheses 2 and 3) do not support earlier research conducted employing Rational Emotive Education with older age-groups (Brooking, 1973; Jacobs, 1972; Maultsby, 1973). As previously discussed in the Adolescence section, there is much dispute over the characteristics and conflicts experienced during this developmental stage. However, most psychologists agree that adolescence is a time of precarious self-esteem and instability. Levinson (1973) stresses the sense of urgency and immensity attached to every experience or problem. There is a continual dependence-independence conflict during these years in which family and peer group vie for precedence (MacLennan & Felsenfeld, 1968; Munns, 1972), and the adolescent often may strive for acceptance from one or both sources rather than attempt to struggle for self-acceptance.

Therefore, it would seem plausible that adolescents might not have developed a stable emotional plateau or reasoning-belief system which could be measured as consistent over time. Large fluctuations in emotions and attitudes may be characteristic during adolescence, and requests as stated in one instrument "to indicate how you generally feel" may be somewhat unfounded for many adolescents. The variation in the pretest and posttest scores could thus be partially accounted for. In the control group, variations in pre- and posttest scores were quite large, but were in both positive and negative directions with no significant mean increase or decrease for the group. Despite a definite trend of decreasing scores on the Adult Ideas Inventory, there was still much variation in the positive direction (increase in irrational ideas) that needs to be considered. Therefore, it may be appropriate to

question Ellis' underlying assumption that Rational Emotive Education is effective and beneficial for all age-groups and all personality types. According to Piaget, adolescence is a time of many cognitive developments, especially the growth of the ability to conceptualize and generalize (Conger, 1973). This is a gradual process which occurs throughout the entire adolescent period. Since this research sample included only fourteen and fifteen year old subjects, it may be that the development of formal thought processes had not yet been accomplished.

In this study, the experimental subjects found it quite easy to repeat or rephrase the basic Rational Emotive concepts. They also became quite adept at attempting to uncover their self-talk and irrational ideas in a specific situation. However, the crucial aspect of disputing the irrational ideas and substituting more rational thoughts and beliefs was much more difficult for them to either comprehend or apply in a specific situation. Often the group members seemed unable to explore possible alternatives in thinking, or make the step from considering an alternative to attempting to internalize it into one's belief system. Thus, there remained a somewhat superficial approach to some of the explorations of Rational Emotive concepts. This could be a result of either a cognitive inability to conceptualize and generalize, or to a lack of motivation to affect any real personal changes.

One major criticism of research involving counseling with the adolescent age-group, especially, is the difficulty in accounting for the existence of or lack of motivation to change. Myers (1971) stated that "one striking feature of studies below the college level is that clients

were seldom self-initiated applicants" (Myers, 1971; p. 877). He expressed concern for the lack of information on client motivation and its effect on counseling outcome, and asserted the need to distinguish between counseling in an educational setting and that conducted in a private or clinic setting. In a related article, Shapiro (1971) concluded that "the expectations of the patient have been demonstrated by Goldstein (1962) and others to be an important determinant of the outcome of treatment" (Shapiro, 1971; p. 449).

In this study the experimental group subjects, while agreeing to complete the instruments, expressed a dislike for this particular part of their participation in the research study, and there were attempts made by subjects in both groups to determine the researcher's purpose in re-administering the questionnaires. Therefore, it is possible that attempts were made by the subjects to out-guess the researcher, or express their disapproval of the instruments by a lack of serious consideration of the responses.

This subject sample was approached by the researcher concerning the Rational Emotive Education project, and agreed to participate, but were not "self-initiated". This may account in part for some of the resistance to completing the instruments, and the homework assignments made weekly by the researcher. It may also help to explain the lack of significant change following study-group participation. The expectations of the subjects were not concretized at any point so that it is impossible to determine the level of motivation towards change.

Another factor to consider when discussing the results is the instruments employed in measuring anxiety and rational-irrational ideas.

Previous studies have tested these instruments for both reliability and validity with various samples (see Chapter III). However, in this particular study there is a definite trend for both experimental and control subjects towards a decrease in scores between the pretest and the posttest. This would seem to indicate that there was an overall test-retest effect occurring, resulting in lower scores the second time the instrument was administered. One possible explanation for the decrease may simply be that there is anxiety experienced in first taking the instrument and feeling unsure of one's responses and of one's participation in a research study. When the posttest was given, however, the instruments were already familiar to the subjects and there was less concern over possible expectations from the researcher. This may account in part for the trend towards a decrease in mean scores for both groups rather than just for the experimental group as hypothesized.

Finally, it must be emphasized that this study was conducted with a small non-random sample of adolescents, and that results in any direction are not generalizeable to the population of normal adolescents. In a non-laboratory research study, there are many variables which cannot be controlled, and so it is only possible to attempt to understand why the hypothesized results were not obtained. It is impossible to state any one explanation with certainty. There is a need for further research in the area of Rational Emotive Theory and Education with adolescents in order to clarify and concretize the questions raised and results obtained in this study.

Limitations

There are several limitations inherent in the type of research study undertaken by this researcher. The major conflict revolves around doing research outside of a laboratory situation. In doing so, one gains a more natural setting and thereby hopefully encourages less artificial or inhibited participation and responses by the subjects. However, moving outside a laboratory setting almost always introduces a variety of variables which are not tightly controlled, thereby preventing certainty in making any cause-effect statements.

Research with adolescents involves further complications and limitations. As stated in both the theoretical and review of literature sections on adolescence, this age group is characteristically unsure of self and other people, resentful of demands made by adults, and fearful of any potential threat to one's precarious self-esteem. Therefore, in asking for a group of fourteen and fifteen year olds to make a commitment to a six week study group on emotions and interpersonal relations, one must expect to receive a limited and tentative response even from the more sophisticated and stable members of that age-group.

Exhaustive attempts were made to obtain a random sample of adolescents in the Blacksburg, Virginia area, but with no success. It became necessary to work with existing groups of adolescents. Since a random sample was not used, the results of this study are not generalizable to normal adolescent populations. The results can serve, however, as a resource for future research and as an indication of both the potential validity and the potential complications of employing Rational Emotive Education with adolescents within a research design.

A third limitation involves the instruments used in measuring changes in rational thinking and anxiety. Both instruments have been subjected to test-retest reliability and construct validity testing, which is reported in Chapter III. However, most of the testing involved college-age and older subjects and there has been relatively little testing done with the young adolescent group. At the present time there is only one basic instrument available for measuring rational-irrational thinking as defined by Rational Emotive Theory (the Adult Ideas Inventory and the Irrational Ideas Inventory contain forty identical items out of sixty total items), and more studies are needed on this instrument if continued research on Rational Emotive Therapy and Education is to be carried out using this instrument.

The State-Trait Anxiety Inventory was affirmed valid for use from junior high age through adulthood (Spielberger, personal correspondence). However, there are limited reliability and validity statistics on the early adolescent age-group and most studies have been conducted using college-age subjects.

Finally, it is necessary to consider the researcher's limited experience in theory and practice of Rational Emotive concepts and techniques. It is possible that a more experienced therapist or educator, using the same subjects, might have shown more positive changes as indicated by a greater decrease in anxiety and increase in rational thinking.

Research Implications

Rational Emotive Therapy and Education are relative newcomers to

the field of psychotherapy, and systematic research testing the effectiveness of the theory and various methods of presentation of the theory has begun largely in the last five years. Therefore, each new study using Rational Emotive Theory provides further support, raises new questions, and opens the pathway to a variety of potential research in this area.

As mentioned previously, very little has yet been written about employing Rational Emotive concepts with adolescents, and research with subjects under college age is minimal. Therefore, there is a great need for further research involving Rational Emotive Theory as both a therapy and as an educative program for adolescents. Specifically, this study suggests the importance of future research with various adolescent samples such as normal adolescents, juvenile delinquents, probationers, etc., with attempts at obtaining random samples for each of these populations.

It will be most important for future research on Rational Emotive Theory with adolescents to take into account and integrate existing concepts and theories of adolescent behavior and development. More specifically, Piaget's theory of cognitive development might be explored in relation to Rational Emotive Theory in order to determine the capacity of the early adolescent to comprehend the abstract concepts and then generalize to his own personal situation in order to affect changes in his emotional states and thinking patterns.

As mentioned previously, further research is needed in developing and improving existing instruments to measure both emotional and cognitive changes resulting from Rational Emotive Education or Therapy.

There appears to be a need for instruments designed especially for the adolescent age-group which would take into account and compensate for the apparent fluctuations and instability of emotions and perceptions at this time.

Theoretical Implications

Rational Emotive Theory was developed by Albert Ellis and has been practiced by him and a growing number of psychiatrists, psychologists, and counselors throughout the United States. A continuing release of articles and books attest to the effectiveness and benefits of employing Rational Emotive concepts and techniques in a variety of situations and with a variety of clients. Ellis has stated that Rational Emotive Therapy can be applicable and beneficial to all people except those who are unable to communicate effectively or who are severely brain-damaged (Corsini, 1973). This fairly universal statement needs to be further explored theoretically and through systematic research.

Despite the methodological limitations which have been acknowledged previously, the findings of this study suggest some possible limitations to the universality of Rational Emotive Theory. Contrary to previous theoretical writings and research, this study has indicated that adolescents may respond to Rational Emotive Education not only with acceptance and resulting benefit, but also with resistance or lack of interest. Current research by Morley and Watkins (1974) has indicated that modifications in style of presentation of Rational Emotive Theory may be helpful in increasing the benefit to differing personality types. This present study may suggest that modifications in presentation would

be helpful for various age-groups. Adolescence is a time of insecurity and resistance to adult authority (Rosenberg, 1965). Therefore, direct challenging of irrational ideas might be replaced with presentation of Rational Emotive concepts and encouragement to experiment with these new ideas in one's daily life.

Theoretically, this study further indicates a need to relate Rational Emotive Theory with concepts of cognitive development in order to determine at what age the mental capacity exists to understand and apply Rational Emotive concepts. It would also seem important to relate Rational Emotive Theory to existing learning theories in order to develop further techniques for breaking into the cycle of irrational beliefs and thoughts, and re-learning new, more rational thought sequences.

This study revealed wide variations in both pretest and posttest scores for subjects in both the experimental and control groups. If Rational Emotive Education programs are theoretically sound, it would seem to be important to expand the theory to account for and explain such variability in rational-irrational thinking among normal, homogeneous populations.

Rational Emotive Theory was developed originally as a therapy to be used with clients who were personally distressed and therefore motivated towards change. Education has a unique opportunity as a preventive technique, and yet should not expect results as dramatic as those in therapy. If Rational Emotive Education stimulates consideration of new ideas and more rational thought patterns, then it is making a contribution to mental and emotional health. Therefore, it may be necessary

to re-examine not only the theoretical concepts, but the present methods of evaluation available to researchers in the field of Rational Emotive Theory and Education.

CHAPTER V

Summary

This study was undertaken as an attempt to determine whether the concepts and principles of Rational Emotive Theory could be understood by early adolescents and applied by them in their daily lives. Previous studies have shown the effectiveness of teaching Rational Emotive concepts in an educative, rather than a remedial or therapeutic setting, with both college students and elderly citizens. It has been suggested that adolescents can understand and benefit from Rational Emotive Education (Ellis, 1971a; Ellis, 1973a; Glicken, 1968; Tosi, 1974). No previous research has been done, however, using Rational Emotive Education with a normal adolescent population.

Various groups of ninth and tenth grade students were contacted in the Blacksburg, Virginia area to determine if there was an interest and a willingness to make a six week commitment to participate in a program of Rational Emotive Education. The experimental and control groups were drawn from various Protestant church youth groups, and one Girl Scout troupe in the Blacksburg area. They were matched as a group for age, sex, socioeconomic status, and pretest scores on the Adult Ideas Inventory and the State-Trait Anxiety Inventory. The control group participated by completing a pretest and posttest of the Adult Ideas Inventory, the State-Trait Anxiety Inventory and background information at a six week interval.

The experimental group participated in six study group sessions, each of which was devoted to a particular aspect of Rational Emotive

Theory, discussion, and examples of each concept as it related to their personal situations. Only subjects who attended all six sessions of the study group were included in the final experimental group. A pretest of the two instruments and biographical information preceded the first session and was administered again six weeks later at the conclusion of the final session. It was hypothesized that there would be no significant difference between the experimental and control groups on pretest scores on the two instruments, but that following the Rational Emotive Education program the experimental subjects would show a greater decrease in both irrational ideas and anxiety than the control group subjects.

In order to test these hypotheses, a total score on the Adult Ideas Inventory and the State-Trait Anxiety Inventory was computed for each subject in both the experimental and control groups and a Wilks' criterion test was performed to determine if there were significant differences between the mean pretest and posttest score change of each of the two groups on both instruments. Alpha was set at .05 for all statistical tests.

The results from the Wilks' criterion test confirmed Hypothesis 1. There were no significant differences on the two instruments. Following the Rational Emotive Education program the two groups showed no significant differences in decrease in irrational thinking. The decrease for the experimental group mean score was twice as great as the decrease in the control group mean score. However, due to the wide variation in scores, these differences were not significant at the .05 level. There was a small decrease in anxiety for both groups after the six week period

but the decrease was not significant for either group. Therefore, the results failed to confirm Hypotheses 2 and 3, that the experimental subjects would show a greater decrease in irrational ideas and anxiety following treatment than the control group subjects.

The results of this study did not confirm previous research conducted employing Rational Emotive Education with older age-groups. Several limitations must be considered, which include the use of a small, non-random sample of adolescents, and the limited experience of the researcher in conducting Rational Emotive Education programs. However, despite these methodological limitations, the results raise some theoretical questions relating to the cognitive development of early adolescents and the universality of Rational Emotive Education as an effective program for all age-groups. Therefore, further research relating Rational Emotive Theory to current developmental theories and explanations of adolescent thought and behavior would be helpful. Results also indicate the need for research in development and validation of instruments directly related to Rational Emotive Theory which can accurately measure changes in negative emotions and rational-irrational thinking.

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APPENDIX A

PERSONAL DATA SHEET

- | | |
|---|--|
| 1. My present age is: | 1. 13
2. 14
3. 15
4. 16 |
| 2. Sex: | 1. Male
2. Female |
| 3. Present grade level: | 1. 9th grade
2. 10th grade
3. 11th grade |
| 4. Approximate grade average: | 1. A
2. B
3. C
4. D
5. F |
| 5. Number of brothers and sisters: | 1. 0
2. 1
3. 2
4. 3
5. more than 3 |
| 6. What number child are you in the family: | 1. only child
2. first child
3. second child
4. third child
5. fourth or later child |
| 7. Father's educational level: | 1. high school graduate
2. 2 years college
3. college graduate
4. M. A. degree
5. Ph.D. degree |
| 8. Mother's educational level: | 1. high school graduate
2. 2 years college
3. college graduate
4. M. A. degree
5. Ph.D. degree |
| 9. Father's Occupation
(please write in) | _____
_____ |
| 10. Mother's Occupation:
(please write in) | _____
_____ |

SELF-EVALUATION QUESTIONNAIRE
STAI FORM X-2

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

- | | | | | |
|--|---|---|---|---|
| 1. I feel pleasant | 1 | 2 | 3 | 4 |
| 2. I tire quickly | 1 | 2 | 3 | 4 |
| 3. I feel like crying. | 1 | 2 | 3 | 4 |
| 4. I wish I could be as happy as others seem to be | 1 | 2 | 3 | 4 |
| 5. I am losing out on things because I can't make
up my mind soon enough | 1 | 2 | 3 | 4 |
| 6. I feel rested | 1 | 2 | 3 | 4 |
| 7. I am "cool, calm, and collected" | 1 | 2 | 3 | 4 |
| 8. I feel that difficulties are piling up so that
I cannot overcome them | 1 | 2 | 3 | 4 |
| 9. I worry too much over something that really
doesn't matter | 1 | 2 | 3 | 4 |
| 10. I am happy | 1 | 2 | 3 | 4 |
| 11. I am inclined to take things hard | 1 | 2 | 3 | 4 |
| 12. I lack self-confidence | 1 | 2 | 3 | 4 |
| 13. I feel secure | 1 | 2 | 3 | 4 |
| 14. I try to avoid facing a crisis or difficulty | 1 | 2 | 3 | 4 |
| 15. I feel blue | 1 | 2 | 3 | 4 |
| 16. I am content | 1 | 2 | 3 | 4 |
| 17. Some unimportant thought runs through my mind
and bothers me | 1 | 2 | 3 | 4 |
| 18. I take disappointments so keenly that I can't
put them out of my mind | 1 | 2 | 3 | 4 |

19. I am a steady person 1 2 3 4
20. I get in a state of tension of turmoil as I
think over my recent concerns and interests . . . 1 2 3 4

ADULT IDEAS INVENTORY

DIRECTIONS: A number of statements are listed below. Read each statement and indicate whether you Disagree, Disagree a little, Unsure, Agree a little, Agree.

There are no right or wrong answers. Do not spend too much time on each statement but do give the answer which seems to best describe your belief.

	Disagree	Disagree a little	Unsure	Agree a little	Agree
1. Jeers humiliate me even when I know I am right.	1	2	3	4	5
2. I worry about situations where I am being tested.	1	2	3	4	5
3. The best way to teach a child right from wrong is to spank him when he is wrong.	1	2	3	4	5
4. I must learn to "keep my head" when things go wrong.	1	2	3	4	5
5. I think I am getting a fair deal in life.	1	2	3	4	5
6. I worry about eternity.	1	2	3	4	5
7. I am happiest when I am sitting around doing little or nothing.	1	2	3	4	5
8. I prefer to be independent of others in making decisions.	1	2	3	4	5
9. If a person is ill-tempered and moody, he will probably never change.	1	2	3	4	5
10. I get very upset when I hear of people (not close relatives or close friends) who are very ill.	1	2	3	4	5
11. Crime never pays.	1	2	3	4	5
12. My family and close friends do not take enough time to become acquainted with my problems.	1	2	3	4	5

	Disagree	Disagree a little	Unsure	Agree a little	Agree
13. People who do not achieve competency in at least one area are worthless.	1	2	3	4	5
14. We are justified in refusing to forgive our enemies.	1	2	3	4	5
15. I frequently feel unhappy with my appearance.	1	2	3	4	5
16. I feel that life has a great deal more happiness than trouble.	1	2	3	4	5
17. I worry over possible misfortunes.	1	2	3	4	5
18. I often spend more time in trying to think of ways of getting out of something than it would take me to do it.	1	2	3	4	5
19. I tend to look to others for the kind of behavior they approve as right and wrong.	1	2	3	4	5
20. Some people are dull and unimaginative because of defective training as a child.	1	2	3	4	5
21. Helping others is the very basis of life.	1	2	3	4	5
22. School promotions should be for intellectual merit alone.	1	2	3	4	5
23. It is very important to me when I do a good job to be praised.	1	2	3	4	5
24. I find it difficult to take criticism without feeling hurt.	1	2	3	4	5
25. It is terribly upsetting the way some students seem to be constantly protesting about one thing or another.	1	2	3	4	5
26. It is impossible at any given time to change one's emotions.	1	2	3	4	5
27. I tend to worry about possible accidents and disasters.	1	2	3	4	5

	Disagree	Disagree a little	Unsure	Agree a little	Agree
28. I need to learn how to keep from being too assertive or bold.	1	2	3	4	5
29. To cooperate with others is better than doing what you feel should be done.	1	2	3	4	5
30. Sympathy is the most beautiful emotion of man.	1	2	3	4	5
31. People who criticize the government are either ignorant or foolish.	1	2	3	4	5
32. I wish that more affection were shown by members of my family.	1	2	3	4	5
33. When a person is no longer interested in doing his best, he is done for.	1	2	3	4	5
34. I get very angry when I miss a bus which passes only a few feet away from me.	1	2	3	4	5
35. My school and/or neighborhood provide adequate opportunity for me to meet and make friends.	1	2	3	4	5
36. I can walk past a grave yard alone at night without feeling uneasy.	1	2	3	4	5
37. I avoid inviting others to my home because it is not as nice as theirs.	1	2	3	4	5
38. I prefer to have someone with me when I receive bad news.	1	2	3	4	5
39. It is necessary to be especially friendly to new school-mates and neighbors.	1	2	3	4	5
40. The good person is usually right.	1	2	3	4	5
41. Sometimes I feel that no one loves me.	1	2	3	4	5
42. I worry about little things.	1	2	3	4	5
43. Riches are a sure basis for happiness in the home.	1	2	3	4	5

	Disagree	Disagree a little	Unsure	Agree a little	Agree
44. I can face a difficult task without fear.	1	2	3	4	5
45. I usually try to avoid doing chores which I dislike doing.	1	2	3	4	5
46. I like to bear responsibilities alone.	1	2	3	4	5
47. Other people's problems frequently cause me great concern.	1	2	3	4	5
48. It is sinful to doubt the Bible.	1	2	3	4	5
49. It makes me very uncomfortable to be different.	1	2	3	4	5
50. I get terribly upset and miserable when things are not the way I would like them to be.	1	2	3	4	5
51. I find that my school and social life tend to make me unhappy.	1	2	3	4	5
52. I am afraid in the dark.	1	2	3	4	5
53. Many people that I know are so unkind or unfriendly that I avoid them.	1	2	3	4	5
54. It is better to take risks and to commit possible errors, than to seek innecessary aid of others.	1	2	3	4	5
55. I get disturbed when neighbors are very harsh with their little children.	1	2	3	4	5
56. I find it very upsetting when important people are indifferent to me.	1	2	3	4	5
57. I have sometimes had a nickname which upset me.	1	2	3	4	5
58. I have sometimes crossed the street to avoid meeting some people.	1	2	3	4	5
59. When a friend ignores me, I become extremely upset.	1	2	3	4	5

	Disagree	Disagree a little	Unsure	Agree a little	Agree
60. My feelings are easily hurt.	1	2	3	4	5

APPENDIX B

HOMEWORK FORMA. FACTS AND EVENTSB. SELF-TALK

1.

2.

3.

4.

5.

C. EMOTIONSD. DISPUTE

1.

2.

3.

4.

5.

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THE EFFECTS OF AN EDUCATIVE PROGRAM IN RATIONAL EMOTIVE
TECHNIQUES ON EARLY ADOLESCENTS

by

Frances A. Poe

(ABSTRACT)

The effectiveness of conducting an educative program in Rational Emotive concepts and techniques with high school students was investigated. A sample of thirty adolescents, ages fourteen and fifteen was used, with fifteen subjects each in the experimental and control groups. The experimental group participated in a six week study group on Rational Emotive Education, with the researcher as the instructor.

The State-Trait Anxiety Inventory and the Adult (Irrational) Ideas Inventory were administered as a pretest, revealing no significant differences between groups on these two measures. Following the treatment, the two instruments were again administered. Due to the wide variation of individual subject's scores, no significant difference in mean score change between the two groups was revealed.

Such findings do not support previous research with older age-groups, and raise some questions regarding the usefulness of Rational Emotive Theory for early adolescents, the validity of the instruments for the adolescent age-group, and the need for more counselor experience in order to facilitate change.