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# Effectiveness of an Anger Management Training Program Based on Rational Emotive Behavior Theory (REBT) for Middle School Students with Behavior Problems

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To the Graduate Council:

I am submitting herewith a dissertation written by Shannon Rae Sharp entitled "Effectiveness of an Anger Management Training Program Based on Rational Emotive Behavior Theory (REBT) for Middle School Students with Behavior Problems." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Education.

R. Steve McCallum, Major Professor

We have read this dissertation and recommend its acceptance:

Sherry Mee Bell, Charles L. Thompson, Robert G. Wahler

Accepted for the Council:
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Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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Vice Provost and Dean of Graduate Studies

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**EFFECTIVENESS OF AN ANGER MANAGEMENT TRAINING PROGRAM**

**BASED ON RATIONAL EMOTIVE BEHAVIOR THEORY (REBT) FOR**

**MIDDLE SCHOOL STUDENTS WITH BEHAVIOR PROBLEMS**

A Dissertation

Presented for the

Doctor of Philosophy Degree

The University of Tennessee

Shannon R. Sharp

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**DEDICATION**

This dissertation is dedicated to my family. I would not be who I am today without your love, support, and influence. To my husband, Joshua Sharp, you have also provided ideas and recommendations throughout this entire process. You have taught me so much about love, life, and (most importantly in this endeavor) how to be a true researcher. To my parents, Arnold and Helaine Stone, you raised me to reach for the stars and always believe in myself. You instilled in me a love for learning and a strong work ethic, which have brought me to where I am today. To my brother, Mickey Stone, whom after all the years of sibling rivalry, has become a very special part of who I am. As my big brother, you allowed me to learn from your mistakes, but I've learned the most from your accomplishments. To my grandparents, in-laws, extended family, and friends, thank you for believing in and supporting my dreams. And to all the children in need, thank you for giving me a purpose in life.

**ABSTRACT**

Sixteen seventh and eighth graders from a rural East Tennessee middle school participated in an anger management group training program based on Rational Emotive Behavior Theory (REBT). The participants were identified as having behavior problems in the school setting, characterized by the number of office referrals acquired in the previous school year.

When tested on knowledge of REBT concepts directly following treatment (post-test), the participants earned significantly higher scores compared to baseline (pre-test). This knowledge gain remained significant after an 8-week follow-up period. Effect sizes for these comparisons were large. Additionally, the 7th graders' post-test scores were significantly higher than the pre-test scores of the 8th graders (serving as a waiting control group).

Program effectiveness was also assessed based on the number of office referrals accrued by the participants. No significant differences exist from baseline to intervention or from baseline to follow-up. Moderate and large effect sizes were found for the overall group and the 7th and 8th grade subgroups from baseline to follow-up. A large effect was found for the 8th graders from baseline to intervention. The number of 8th grade (waiting control group) office referrals during baseline was significantly higher than the 7th graders' during follow-up.

The participants' level of rational thinking and (stated) action, as well as attribution levels, were evaluated through written responses to anger-inducing scenarios. Rationality of stated actions increased for the overall group and 7th and 8th grade subgroups. Rationality of thinking remained stable for the overall group, increased for the 7th graders, and decreased for the 8th graders. Analysis of attribution data revealed mostly positive trends (toward more internal attributions for anger) for ability, luck, and task difficulty. Effort was the only attribution with a trend toward more external attributions, i.e., the participants did not respond that they would try harder to control their anger over the course of the training.

Results of this study suggest that training programs such as this may be effective in teaching children the principles of REBT. Such knowledge may lead to an increase in the use of these principles for anger management, thus reducing aggressive behavior.

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## 1. INTRODUCTION

Purpose

Meta-analyses on the general effectiveness of Rational Emotive Behavior Therapy (REBT) for children are equivocal, i.e., positive outcomes have been found in some studies, but not in others. Of the studies available, none have addressed the utility of a training program that includes REBT-based group activities for the purpose of anger management for rural middle school children in a general school setting. The purpose of this research was to evaluate the effectiveness of a school-based anger management group intervention based on the REBT model. Success was determined by examining the extent to which group participants gained knowledge about how to control their anger using REBT techniques, and the extent to which the number of office referrals for aggressive behavior decreased. More general cognitive-behavioral group and individual interventions have been found to be effective in reducing anger and aggression in both adults and children. Also, REBT has been found to be effective in reducing anger and aggression as a result of individual therapy in adults. Studies investigating the effectiveness of a group intervention in the school setting based on REBT and designed to reduce anger and aggressive behaviors in children are sparse in the literature.

Physiology of Anger

Zillmann (1993) identified endangerment as a universal trigger for anger. Endangerment can be thought of in terms of the traditional fight-or-flight response to physical threat, or by a threat to self-esteem or dignity, such as insults, unjust treatment, or frustration.

The following sequence of the development of the anger response was described by Goleman (1995). When a signal is perceived by one of the senses, it first goes to the thalamus where it is translated into language the brain understands. The signal then goes to the cortex (visual, auditory, etc., depending on the origin of the signal). In the cortex, meaning and options for response are considered. It is here that the individual "thinks" about the situation that led to the anger response. For an emotional response, the signal then goes to the amygdala, which activates emotion and action. Some of the original signal, however, bypasses the cortex and goes immediately from the thalamus to the amygdala, so that the individual may react quickly. For situations deemed extremely threatening, the cortex is not involved, and

the individual may respond to the signal without "thinking". Goleman termed this response "emotional hijacking" because the brain is flooded with emotion and the response is not being mediated by thought. According to Zillmann (1993), such a high level of excitation and the lack of cognitive guidance gives the individual a false sense of power, causing him to act out in a most primitive way.

This "emotional hijacking" appeared to be a common response in Slaby and Guerra's (1988) study of aggressive high school students and juvenile offenders of violent crimes. A common mindset found among those studied was that during difficulties with another individual, the aggressive individual immediately saw the other in an antagonistic way, with little to no effort to understand the other's point of view or to try to settle the problem peacefully. Similarly, the aggressive individual typically did not consider the negative consequences of a violent solution (i.e. fighting).

This type of irrational response can be contrasted with a more peaceful response, which utilizes cognitive mediating to de-escalate angry feelings. For example, the sensation of becoming enraged after getting cut off by a speeding driver may be mediated by considering possibilities (other than malevolent ones); perhaps the speeding driver was in an emergency, such as taking a pregnant wife to the hospital, which necessitated reckless driving. Although brooding on an event can cause anger, an open-mind and reasonable response can reduce or eliminate anger (Goleman, 1995). Tice and Baumeister (1993) suggested that positively reframing potentially anger inducing situations could help reduce or eliminate those feelings.

Zillmann (1993) supported the efficacy of advice in his study of reactions to a rude confederate. The confederate taunted volunteers, who were later given the chance to retaliate by giving him bad evaluation that would affect his candidacy for a job. The volunteers happily retaliated in this situation. Later, a group of taunted volunteers were told that the confederate was under great stress about an upcoming graduate oral exam. The volunteers in this situation did not retaliate with bad evaluations, but rather expressed compassion. Thus, consideration of the "plight" of the confederate served as a mediating agent. These findings shows support for a focal premise of the REBT model—that one can change one's behavior by changing cognitions or beliefs about the situation they are in. Specifically, REBT stresses the importance of adopting more rational beliefs about a situation, thus leading to more rational behaviors.

History of School Violence

"School violence is probably best conceptualized as a range of antisocial behaviors on school campuses, ranging from oppositionality and bullying to assaults (Baker, 1998)." This is a problem that has significantly worsened over the past fifty years, as documented by Warner, Weist, and Krulak (1999).

In 1949, high school principals were surveyed and noted no problems regarding interpersonal violence. In fact, the most serious problems reported in this survey were lying and disrespect (Hennings, 1949). By the late 1950s, as concluded by a National Educational Association study, violence started to become a concern for schools. The largest concern was violence against teachers, which was especially a problem in inner city schools (National Educational Association, 1956).

The number of violent acts in the schools skyrocketed in the 1970s. The Bayh Report, conducted from 1970 to 1973 (Bayh, 1975), and the Safe School Study, conducted by the National Institute of Education in 1978 (National Institute of Education, 1978), both found violence to be a serious problem for schools during this time.

While violence seemed to level off in the 1980s, reports on the magnitude of school violence in the 1990s are equivocal. While some have noted increases in the number of violent acts, others have noted decreases. For instance, the National School Boards Association conducted a survey from 1988 to 1993 and concluded that school violence increased over this period (National School Boards Association, 1993), while Hyman and Perone (1998) cite decreases in school violence in 1996.

Statistics and Prevalence of School Violence

According to an NSBA (1993) survey, each year approximately 3 million crimes occur on or near school grounds, and each day an estimated 135,000 American children carry guns to school. Seventy-eight percent of the school districts in this national survey reported student-on-student assaults, and the same number reported student-on-teacher assaults. Sixty-one percent of the schools reported weapons were a problem in their school, and thirteen percent reported shootings and/or knifings in the past year.

Gottfredson, et al. (2000) report that 6.7% of schools nationwide reported at least one incident of a physical attack or fight involving a weapon to law enforcement during the past year. Some schools reported several such incidents to law enforcement personnel, resulting in an estimated 20,285 reported

fights or attacks involving weapons reported. Many incidents, however, are not reported to the authorities, resulting in a much higher number of actual incidents of school violence. According to the National Center for Educational Statistics (Heaviside, Rowand, Williams, & Farris, 1998), in the public schools, approximately 190,000 fights or physical attacks without weapons and 11,000 physical attacks with weapons were reported for the 1996-1997 school year. Similarly, The Metropolitan Life Survey of the American Teacher (1993) found that 273,000 (11%) of public school teachers and 6.8 million (23%) of students nationwide reported being victimized in or around their school.

The prevalence of school violence varies with regard to the grade of the students. Perpetration and victimization rates are highest in middle school, followed by high school, and are lowest in elementary school (Gottfredson, et al., 2000; Heaviside, Rowand, Williams, & Farris, 1998; NIE, 1978; Petersen, 1996; Warner, Weist, & Krulak, 1999). Gender also influences the rate of school violence, with males showing much higher incidence than females (Warner, Weist, & Krulak, 1999). Prevalence rates are also somewhat dependent on the setting of the school, although this distinction is not as clear-cut. Generally, urban schools have the highest rates of school violence, followed by suburban and rural schools.

Results of School Violence on Self and Peers

Participating in acts of school violence has a serious effect on the aggressor. Baker (1998) found that these children are at risk for failing to engage in the community life of the school because they do not try to make close social relationships there. This leads them to feel as if they do not belong, which perpetuates the problem further. Additionally, the aggressor, when caught, will face disciplinary action that may negatively effect the quality of education for this individual and could have a lasting effect on the individual's future.

Witnessing school violence also has many effects on students, even if they were not involved directly in the aggressive act. Fiester, Nathanson, Visser, and Martin (1996) noted that consistent exposure to violence could harm children's cognitive and physiological functioning, as well as their ability to form close attachments. Additionally, children who are in fear for their personal safety may experience problems in concentration (NSBA, 1993), leaving them less able to absorb and learn class material (Gorski & Pilotto, 1993). Even more seriously, these children may be so fearful of being in the school that they cut classes or

become frequently absent (Nuttall & Kalesnick, 1987). In some cases, students bring weapons to school to protect themselves. Coben, Weiss, Mulvey, and Dearwater (1994) found that approximately 430,000 students brought a weapon to school for protection purposes during a six month period during the 1988-1989 school year.

Many schools have developed a variety of programs in an effort to help ease the fears of their students and keep their schools safe. Such programs include: zero tolerance policies (Keim, 2001), school uniforms, closed campus policies, metal detectors, law enforcement patrols, mentoring, and violence prevention programs (MacDonald, 1999). The next section focuses on the trend toward using violence prevention programs, specifically anger control and prevention training.

Theory-Based Anger Control Interventions

Many psychological models make assumptions about the causes of anger and aggression and the types of therapy that should be employed to help individuals control anger and aggression. The following is a discussion of these assumptions for the psychological models most related to Rational Emotive Behavior Theory.

Behavioral Theory. Behaviorism holds that individuals respond in situations based on previous learning in similar situations. They react to environmental cues in patterns of behavior that follow a stimulus-response sequence. Behavioral theorists do not believe that these patterns are permanent, but rather that they can be changed through new learning experiences (Thompson, & Rudolph, 2000).

According to behavior theorists, responses to anger and aggression are learned, just as other behaviors are. Specifically, individuals learn to respond aggressively to obstacles in the environment because those responses are reinforced (Adams, 1973). Many behaviorists believe that learning, and particularly history of reinforcement/punishment, provides the best explanation for why aggressive behaviors occur; yet others emphasize more the interaction of learning and biology. Berkowitz (1965) proposed a model for this interaction, in which he describes three components:

The first component suggests that frustration results in an emotional response that initiates a readiness tendency toward aggressive reactions. Second, this readiness tendency will result in aggressive behavior only when appropriate cues are available.

The appropriate cue property is based upon a mental connection or association between

an object and some former determinant of aggression (Adams, 1973, p. 156).

In summary, this model suggests that cues may lead to aggressive behavior because those (or similar) cues were present when aggressive acts were displayed.

Regardless of the position one takes on the role of innate aggressive predispositions, most theorists agree that environmental cues can play a fundamental role in the performance of aggressive behaviors. In the classroom in particular, it is suggested that teachers recognize the cues that serve as stimuli for aggression, and control the environment accordingly so that a student is not placed in situations that may contain anger-eliciting cues (Adams, 1973). More specifically, behavior theorists suggest that reduction of aggressive behaviors can be achieved through behavior modification programs that utilize techniques such as direct reinforcement, contracting, time-out, response cost, logical consequences, shaping, and token economies (Adams, 1973; Feindler, Marriott, & Iwata, 1984).

Some of the above behavior modification techniques (e.g. response cost) are characteristics of a much-debated practice—punishment. Behavior theorists and psychologists in general have studied the effects of punishment to reduce aggression for over half a decade, with inconclusive results. Hollenberg and Sperry (1951) conducted a classic study using verbal punishment to reduce aggression. The authors found that aggression did, in fact, decrease when verbal punishment was administered directly following the aggressive act, but the results were only temporary. Azrin (1960) added that often times, the undesired behavior occurs more frequently after the punishment is discontinued than it originally did (before the punishment was implemented). Parke (1969) found this was the case for aggression specifically, and also noted that the aggression will actually occur more frequently in many other situations as well as the one that was punished.

On the other side of the debate, some research has found that punishment can be effective, especially if combined with other behavior modification techniques. Lovaas, Schaeffer, and Simmons (1965), for example, found this to be the case with a group of aggressive autistic children. They combined punishment (shock) with escape-avoidance training (shock terminated if the child approached the

examiner) in an effort to decrease self-stimulation and aggression. This study found that these behaviors were extinguished for as long as nine months, while social behaviors increased.

Another type of response reduction technique, regarded to as punishment by some (Martens, Witt, Daly, & Vollmer, 1999), is "time-out" in which the individual is withdrawn from a reinforcing situation. Tyler (1965) compared the effectiveness of the time-out procedure with verbal reprimands for assertive-aggressive behaviors in delinquent boys. This study found that time-out from a recreation area was effective in controlling the undesired behaviors, while the verbal reprimands were not effective. This and the previous study are evidence that if used properly, punishment can be an effective treatment for aggression, although it is clear from the other citations that this is not always the case. Adams (1973) proposes the following conclusion:

> The personality of the punishing agent may be an important determinant in the effective use of punishment. Warm and friendly teachers may find that they can use punishment effectively and efficiently while cold and distant teachers may not be able to do so. Perhaps the cognitive interpretation by the student may go as follows: the warm teacher really likes me and is not punishing me just for the fun of it, but to help make me a better person; while the cold, unfriendly teacher either does not care about me or dislikes me and is punishing me because of it (p. 161).

The same argument posed by those opposed to punishment also applies to some reinforcement techniques, such as operant or token programs. That is, when the program is removed, the undesired behavior re-appears (Kazdin, 1977). Because of these difficulties, many programs now focus on teaching self-control and social skills that may help modify the anger response (Feindler, Marriott, & Iwata, 1984, Schippers, Maerker, & DeFuentes, 2001). Lovaas, Schaeffer, and Simmons (1965) found that this type of training was effective in teaching self-control to an autistic child. They reinforced appropriate reactions to music, such as clapping, which led to a decrease in self-destructive aggression. Brown and Elliott (1965) found similar results in their study of classroom teachers. They found that by ignoring aggressive behaviors and encouraging pro-social ones, aggression was decreased. These positive results have led to an

increase in similar programs that teach self-control and social skills within a behavioral paradigm (Feindler, Marriott, & Iwata, 1984, Schippers, Maerker, & DeFuentes, 2001).

Cognitive-Behavioral Theory. Cognitive-behavioral theory (CBT) holds that cognitions are a mediating factor between an event and one's response to that event. The pattern of behavior follows a stimulus-cognition-response sequence, which is unlike the less complex stimulus-response sequence proposed by behavioral theorists. Beck (1976) hypothesized that there were three factors involved in emotions. The first of these is the cognitive triad, which describes how the individual negatively views the self, the world, and the future. The second factor, schema, describes the underlying assumptions the individual has about life. These assumptions distort the individual's idea of reality, and may lead to the formation of the third factor, cognitive distortions, which are misinterpretations individuals hold about the environment. The interplay of these three factors and the level of misinterpretation and distortion the individual holds lead to emotions about particular situations.

Similar to Beck's conceptualization, Novaco (1985) proposed the idea of cognitive mediation specifically in relation to the emotion of anger by identifying three components: cognitive, physiological, and behavioral, that lead to anger as a stress reaction. The cognitive aspect is characterized by how one perceives, interprets, attributes cause, and evaluates stimuli and provocations in the social environment. He points to the evaluation component specifically as the area in which interventions for aggressive adolescents should focus. This component stresses the individual's evaluation of his or her attitudes about the situation that may result in a behavioral response.

A hypothesis proposed by Dodge (1985) suggests that aggressive children negatively interpret events and see others as hostile, which leads to an aggressive response to any provocation. These individuals typically view even the most neutral event as a threat and retaliate accordingly. Expanding on this idea, Thompson and Rudolph (2000) suggest a model that they call the circle of irrational thinking, in which the individual's irrational thoughts lead to self-hate, self destructive behavior, and hatred of others, which eventually leads others to act irrationally toward the individual, causing the cycle to repeat.

Cognitive-behavioral interventions are helpful for students with anger control problems because these individuals typically lack behavioral and cognitive skills that are required to act appropriately and

respond positively to the punishment-reinforcement paradigm typically enforced in the schools (Larson, 1994). Cognitive-Behavioral Therapy (CBT) focuses on teaching the student how to restructure cognitions in order to produce more appropriate behaviors. The following are goals of cognitive-behavioral interventions:

> This approach consists of highly specific learning experiences designed to teach the patient the following operations: (1) to monitor his negative automatic thoughts (cognitions); (2) to recognize the connections between cognition, affect, and behavior; (3) to examine the evidence for and against his distorted automatic thought; (4) to substitute more reality-oriented interpretations for these biased cognitions; (5) to learn to identify and alter the dysfunctional beliefs which predispose him to distort his experiences (Beck, Rush, Shaw, & Emery, 1979, p. 4)

CBT interventions utilize role-playing, logs of anger-inducing encounters, relaxation training, problem solving, perspective-taking, recognition of physiological cues of anger, affect labeling, homework assignments, assertiveness training, self-instruction, and thinking ahead in order to teach these skills.

Researchers indicate that cognitive-behavioral therapy is effective in a variety of populations with a variety of specific techniques. Novaco (1975) conducted a classic study in this area with a group of adults with clear anger control problems. He compared cognitive training, relaxation training, and a combination cognitive-relaxation training and found that the combination training was significantly more effective than the relaxation-only training and the control in improving anger control. There was no significant difference found between the combination training and the cognitive-only training, leading the author to conclude that the cognitive treatment was effective in improving anger control.

Aggressive adults have been the focus of many cognitive-behavioral studies since Novaco's original conception of cognitions as a mediating variable for the anger response. Specifically, the literature contains studies showing the effectiveness of anger control groups for adults with learning disabilities (Howells, Rogers, & Wilcock, 2000; Rossiter, Hunniset, & Pulsford, 1998), adults with mental retardation (Benson, 1986; Benson, 1994; Benson, Rice, & Miranti, 1986; King, Lancaste, Wynne, Nettleton, & Davis, 1999), police officers (Novaco, 1977; Rahaim, Lefebvre, & Jenkins, 1980), psychiatric patients (Novaco,

1976), hypertensive adults (Larkin, & Zayfert, 1996), college students (Deffenbacher, McNamara, Stark, & Sabadell, 1990; Deffenbacher, Oetting, Huff, Cornell, & Dallager, 1996), and adult offenders (Holbrook, 1997; Hosford, & Moss, 1982; Hughes, 1995; Vallient, Ennis, & Raven-Brooks, 1995).

Similarly, much research has been conducted on the effectiveness of cognitive-behavioral groups to reduce anger in a variety of populations of children, including: aggressive school children (DeAnda, 1999; Kellner, & Tutin, 1995, Lochman, Dunn, & Klimes, 1993), hyperactive children (Hinshaw, Henker, & Whalen, 1984), psychiatric children (Kendall, 1993), and juvenile offenders (Escamilla, 1998; Guerra, & Slaby, 1990; McCarthy-Tucker, Gold, & Garcia, 1999; Moore, & Shannon, 1993; Schlichter, & Horan, 1979, 1981; Valliant, Jensen, & Raven-Brook, 1995).

The effects of these and other related studies are summarized by two meta-analyses. Tafrate (1995) reviewed 20 years of cognitive-behavioral anger intervention research and found specific treatments that were particularly effective in helping individuals control anger. He found that interventions that target the individual's self-statements, physiological arousal, and behavioral skills were the most effective. Beck and Fernandez (1998) also analyzed 20 years of research and found an effect size of .70 for cognitive-behavioral interventions, and that the average CBT recipient showed a greater reduction in anger than 76% of those not treated. The authors conclude that CBT interventions generally result in moderate gains.

Rational Emotive Behavior Theory. Rational emotive behavior theory (REBT) is a specific type of cognitive-behavioral theory, which tends to focus more on the behavioral aspect, although the cognitive aspect is also considered very important (Thompson, & Rudolph, 2000). Albert Ellis, the founder of REBT, based the theory on the philosophy of Epictetus (ca. A.D. 55-135): "What disturbs men's minds is not events, but their judgment of events." The theory follows four basic principles: (1) individuals are responsible for their own emotions and actions, (2) irrational thinking leads to harmful emotions and dysfunctional behaviors, (3) it is possible to learn realistic views and internalize them with practice, and (4) a reality-based perspective, will facilitate self-acceptance and life satisfaction (Edelstein, 2001).

In order to develop this reality-based perspective, the REBT client is first shown how irrational beliefs and views lead to dysfunctional consequences, and then is taught how to replace these irrational beliefs and views with rational ones. This is largely done by utilizing the A, B, C, D, E evaluation process.

In this process, the A, B, and C refer to the problem development, such that A is the activating event, B is one's evaluation of that event (B1 refers to an irrational message; B2 refers to a rational message), and C is the consequence(s) resulting from the self-messages expressed in B.  D and E represent treatment steps, such that D is the disputing arguments against B1, and E is one's evaluation of the rationality of the self-statement expressed in B1 (Thompson, & Rudolph, 2000).

REBT specifically addresses anger development and considers this to be an emotion that only becomes physiological after angry feelings are created cognitively (Bernard, 1984).  In describing the emotion of anger, Ellis (1977) distinguishes between healthy anger, which is not intense enough to cause the individual much distress and assists in the attainment of goals, and unhealthy anger, which is almost debilitating and does not allow goal attainment to be accomplished.  He further explains the important distinction that healthy anger is in line with reality, while unhealthy anger leads the individual to misinterpret and distort reality.

The use of REBT for the reduction of anger and aggression has been found to be relatively effective for adults, although most of these studies consist of individual therapy and even single case studies.  Positive results of REBT on angry and aggressive adults include reduced shock intensity (Block, 1976; McVey, 2000; Tafrate & Kassinove, 1998) and shock frequency (McDermott, 1998; McVey, 2000; Mooney, 1980; Tafrate & Kassinove, 1998) after anger-inducing situations, less angry feelings in general (McDermott, 1998; McVey, 2000; Ruth & DiGiuseppe, 1989; Tafrate & Kassinove, 1998; Warren, McLellarn, & Ponzoha, 1988; Woods, 1987) and toward significant others (Souliere, 1995), decreased emotional stress (Hamberger & Lohr, 1980), and lower blood pressure (McDermott, 1998).

Two meta-analyses have been conducted on the effectiveness of REBT for youth.  One such study, conducted by Gossette and O'Brien (1993), examined 33 unpublished dissertations to determine if changes in children's irrational beliefs led to behavior change.  From a total of 278 comparisons between REBT and other treatments, 25% of the studies showed positive outcomes from REBT, which the authors conclude is rather weak support.

However, Hajzler and Bernard (1991) reviewed 46 published outcome studies and unpublished doctoral dissertations on the effectiveness of rational emotive education (REE) for youth, and found a

different pattern of results.  This review found a decrease in irrationality in over 88% of the studies, an increase the internal locus of control 71% of the studies, a decrease in anxiety in 80% of studies, and effectiveness for increasing self-esteem and decreasing behavior problems in over 50% of the studies. Gossette and O'Brien (1993) criticize this study, stating that:

> While listing 46 references [Hajzler and Bernard (1991)] found that tested the efficacy of
> RET with children, these authors curiously limited their review to only 21, three of which
> were case histories.  The remaining 25 reports listed were excluded from their analysis
> because they 'were available only through *Dissertation Abstracts International* or had
> been cited in detail' in previous reviews.  The latter condition, however, was also true of
> at least four of the 21 selected for detailed review (pp. 16-17).

Because results from these two meta-analyses on the overall effectiveness of REBT in youth are not definitive, there is a need for further research in this area.

The literature provides only a few outcome studies on the effectiveness of REBT specifically for the reduction of anger or aggression in children.   One such study conducted by Morris (1993) compared conduct disorder (CD) adolescents with attention-deficit-hyperactivity-disorder (ADHD) adolescents and found that the CD group showed significant improvement on measures of irrational thinking (i.e. less irrational thinking), depression, and anger expression.  Comparatively, the ADHD group did not experience any gains, although the authors contend that the CD group was more willing to take responsibility for their emotional disturbance than the ADHD group.

Block (1978) conducted a study with eleventh and twelfth grade Black and Hispanic failure- and misconduct-prone students.  The treatment consisted of five weekly rational-emotive education group sessions.  When compared to alternative treatment groups and non-treatment controls, the treatment groups showed less incidents of disruptive behavior over an extended period of time, as well as improved GPA and less cutting class.  These two studies provide some support for the effectiveness of REBT in the reduction of anger and aggression in youth, yet additional research is needed.

In an effort to determine if individual rational behavior counseling would reduce behavior problems in urban seventh, eighth, and ninth graders, Zelie, Stone,and Lehr (1980) provided rational

behavior counseling to students sent to the office for misconduct. This counseling was provided as they arrived in the office, prior to their meeting with the vice-principal. Results of this study were generally positive, increasing attention to classwork and homework, decreasing the behavior that warranted the initial office referral, and reducing the number of subsequent office referrals in general. General behavior in the classroom and teacher-student relationships did not significantly improve as a result of the counseling.

Maintenance and Generalizability

Feindler (1991) notes the importance of addressing maintenance and generalizability of appropriate behavior in anger control research. He points out a commonly held belief that cognitive interventions do not suffer from poor maintenance and generalizability because cognitive changes are not situation-bound. Rather, a change in cognition is enduring and will affect all circumstances the individual is faced with. However, this is not the case; cognitive-behavioral anger control training programs suffer from these problems, as training programs have not been shown to generalize across situations and settings effectively. Consequently, Feindler suggests strategies to improve maintenance and generalizability. One such suggestion is the use of group therapy situations (Fiendler, Marriott, & Iwata, 1984; Feindler, Ecton, Kinsgley, & Dubey, 1986) in which the individuals can benefit from role-play of real-life scenarios. Another benefit of the group therapy over individual therapy is that the group situation more closely approximates what the individuals will experience in the real world (i.e., conflict, interpersonal communication, group dynamics). Another suggestion is that the treatment, or certain aspects of it, are implemented in extratherapeutic settings, so that the behavior change may be generalized to their environments. Researchers should use these strategies to increase the chances for maintenance and generalizability of their treatment outcomes.

Conclusion

There has been a shift in the past twenty-five years regarding how schools deal with violence. Discipline of offenders was the main means of combating violence in the seventies, but more recently, schools have taken on violence prevention programs (MacDonald, 1999). Thus, the trend has moved from punishment after the fact to prevention before the violence occurs.

Punishment is often seen as threatening, and leads to even more defiance. Those punished perceive those who administer punishment as hostile, and feel disliked by them (Coie, Dodge, & Kupersmidt, 1990). Additionally, by choosing to punish violent acts, additional violence is produced. Preventing the act stops it from occurring before others are harmed. Thus, prevention has become the focus in dealing with school violence (Poland, 1998) using anger management and problem-solving curriculums. These are particularly helpful in schools, because the school plays a crucial role in helping children unlearn aggressive and antisocial behavior (Jones, 1998).

Social skills training curricula that take cognitive mediating variables into account can be especially helpful, based on research that illustrates the importance of such mediation in reducing and controlling the anger response. According to assault studies, violence stemming from simple arguments is a major problem facing American youths today. In a study of initiating events that lead to violent acts among youth, minor slights and teasing were among the most common triggers. In fact, the largest number of violent incidents were initiated by relatively minor episodes, but escalated into violence (Lockwood, 1997). According to Baker (1998), violent children have different orientations toward violence and lack sufficient skills to negotiate unsuccessful social experiences. They tend to perceive situations as threatening, and have difficulty mediating conflict due to a lack of social-cognitive and behavioral skills (Lochman, White, & Wayland, 1991). Lockwood suggests social skills training to promote appropriate, nonviolent responses to situations, and specifically recommends role-playing as a means of practicing these responses. Based on the evidence presented regarding the effectiveness of cognitive and non-cognitive therapies in the school setting, interventions that teach cognitive mediation seems to represent a desirable ingredient in any anger-prevention.

## 2. RATIONALE FOR THE STUDY

Although many outcome studies have been conducted on the effectiveness of theory-based interventions to increase anger control and reduce aggressive behaviors, outcomes are mixed depending on the population, setting, theory, and methodology of the intervention. The most positive results appear to come from studies based on cognitive-behavioral theory. Rational Emotive Behavior Theory (REBT), a sub-category of cognitive-behavioral theory, has been found to be beneficial in helping patients overcome a variety of problems; but the effectiveness of REBT to control anger has not been demonstrated conclusively for rural middle school children (Tafrate, 1995).

Clearly, there is a need to evaluate the effectiveness of teaching anger control in schools, especially in middle schools where violence is most prevalent. The current intervention teaches at-risk aggressive seventh and eighth graders REBT techniques can help them understand and control their anger both in and out of the school setting. The main strength of this technique is that students can learn to control their cognitions and can make better choices by altering how they react in anger-inducing situations. Because skills training programs fail to generalize in many situations (DuPaul, & Eckert, 1994), two generalizability techniques will be included in the training sessions.

# 3.  STATEMENT OF THE PROBLEM

The literature fails to address the utility of a training program that is characterized as including all of the following: (1) an anger management component, (2) REBT-based activities, (3) a rural middle school population, (4) group intervention, and (5) children in a general school setting.  While studies do exist that address some of these components, none address all of these components together.  The current study addresses this limitation in the literature.

## 4. RESEARCH QUESTIONS

The first set of research questions addresses the extent to which a group-based REBT anger management intervention for rural middle school students in the general school setting leads to greater knowledge of REBT principles and anger management strategies, using a test of REBT knowledge as the dependent measure:

1. Is the mean post-test score (on a test of REBT knowledge) of the experimental group (7th graders) significantly higher than the mean pre-test score of the waiting control group (8th graders), with mean scores obtained simultaneously?

2. Is the mean REBT post-test score (on a test of REBT knowledge) significantly higher for all participants than the mean pre-test score for all participants?

3. Is the mean REBT post-test score (on a test of REBT knowledge) significantly higher than the mean pre-test score for the seventh grade group?

4. Is the mean REBT post-test score (on a test of REBT knowledge) significantly higher than the mean pre-test score for the eighth grade group?

5. Is the mean REBT follow-up score (on a test of REBT knowledge) significantly higher for all participants than the mean pre-test score for all participants?

6. Is the mean REBT follow-up score (on a test of REBT knowledge) significantly higher than the mean pre-test score for the seventh grade group?

7. Is the mean REBT follow-up score (on a test of REBT knowledge) significantly higher than the mean pre-test score for the eighth grade group?

The second set of questions addresses the extent to which the group-based REBT anger management intervention leads to a significant reduction in the expression of anger/aggression, using office referrals as the dependent measure:

1. Is the mean number of office referrals per week during the follow-up phase of the experimental group (7th graders) significantly lower than the mean office referrals per week during the baseline phase of the waiting control group (8th graders)?

2. Is the mean office referrals per week during the intervention phase significantly lower for all participants than the mean office referrals per week during the baseline phase for all participants?

3. Is the mean office referrals per week during the intervention phase significantly lower than the mean office referrals per week during the baseline phase for the seventh grade group?

4. Is the mean office referrals per week during the intervention phase significantly lower than the mean office referrals per week during the baseline phase for the eighth grade group?

5. Is the mean office referrals per week during the follow-up phase significantly lower for all participants than the mean office referrals per week during the baseline phase for all participants?

6. Is the mean office referrals per week during the follow-up phase significantly lower than the mean office referrals per week during the baseline phase for the seventh grade group?

7. Is the mean office referrals per week during the follow-up phase significantly lower than the mean office referrals per week during the baseline phase for the eighth grade group?

# 5.  METHODS

<u>Participants</u>

Participants in this study were 16 students from a middle school in an East Tennessee county that has been classified by the state as "rural" (M. Brown, personal communication, November 20, 2002). Eleven students from the seventh grade and ten students from the eighth grade were selected to participate based on number of office referrals in the previous school year.  Three seventh and two eighth graders were eliminated from the data analysis procedures because they moved from the school prior to the conclusion of the study.  There were 11 males and 5 females in the final sample.  Ages ranged from 147 to 180 months. The average age was 162.6 months; the standard deviation was 9.01 months.

<u>Training Program</u>

The anger management program was developed based on the principles of Rational Emotive Behavior Theory (Ellis & Whiteley, 1979) and utilized eight activities from the Passport Program (Vernon, 1998) that were relevant to anger management (for a protocol of activities see Appendix A).  Themes of these activities include: changing beliefs about situations to reduce anger, building empathy, recognizing signs of anger, and practicing anger control through role-playing.  A detailed description of activities can be found in Appendix B.  Some activities were modified to fit the age and interests of the participants.  In addition, subjects participated in role-playing activities during each session, based on situations in which they personally experienced anger control problems.  Role-playing consisted of two or more individuals acting out a situation in which a group member (often times the one acting out the situation) experienced anger control difficulties in the past.  As the individuals acted out these situations, they were stopped at key points so that the group members could identify A, B, and C from the REBT model.  They then provided suggestions for D and E so that similar situations could be handled more rationally in the future.  This was done in an effort to increase maintenance and generalizability.   Maintenance and generalizability were also the focus of homework activities in which the subjects were expected to utilize thinking and problem-solving skills in real-life anger-inducing situations at home and school throughout the week between sessions.

In addition to the group program, the entire middle school implemented a school-wide initiative to reduce aggressive disputes among students. This program consists of a five-step conflict resolution process for students to consider when in an anger-inducing situation. A key aspect of this process is to give the other person an "I" message, which is a statement that says "I feel _____ when you _____ because _____. I would like you to _____." This fits well into the theoretic paradigm (REBT) of the group program because it forces the individual to think about his/her feelings and express them appropriately. This connection was mentioned to the students in both groups as a way of helping them recognize how new anger-reducing techniques could be related back into the larger school environment. The goal was to use this additional training to help increase maintenance and generalization of the knowledge and behaviors learned in the group program. This training was implemented with both groups during the entire treatment phase.

Procedures

Permission slips were provided for seventh and eighth grade students at a middle school in a rural southern state who were identified by the vice principal and school counselor as "at-risk" for violent behaviors based on previous year's office referrals. Students with signed permission slips were placed in one of two training groups, based on grade. Eleven students from the seventh grade were in one group, and ten students from the eighth grade were in another group. Both groups participated in the same training program, one during October and November and one during January and February. The second group served as the waiting control. The anger management program took place for one hour per week, during the students' Language Arts period. The program was conducted on school grounds, in a classroom setting. Treatment fidelity was evaluated on a daily basis using a checklist of components to be completed during each session (i.e., scenario worksheets completed, objectives for the session outlined, Passport activities completed, situations role-played). A research assistant checked each component as it was completed and total compliance occurred during 100% of the sessions.

During the first training session, participants took a pre-test (see Appendix C) developed to directly assess the knowledge of the issues expected to be learned in the training program. The same test was then given as a post-test during the last training session and after an 8-week follow-up period. Internal

reliability of the 15-item, multiple-choice REBT knowledge test, developed for this study, was calculated using the post-test scores from both groups, and was found to be "respectable" (r = .76; DeVellis, 1991, p. 85). Participants were also given the opportunity to rate their perception of how much the program helped them control their anger. Additionally, to determine if the REBT principles and strategies acquired in the intervention were used in anger-inducing situations in the participants' daily school lives, records of office referrals for each student were obtained from the school guidance counselor. The records consist of the date and reason for each referral. Each student's record was divided into three phases: baseline (eight weeks prior to the intervention), intervention (from the first group meeting to the last group meeting), and follow-up (eight weeks after the conclusion of the intervention).

Because of school scheduling conflicts, such as snow days and holidays, the group meetings were not spread out one-per-week for eight weeks, as originally intended. Although each group did meet for a total of eight sessions, it was necessary to skip a week on some occasions, and make it up by meeting twice during another week. For this reason, the time lapse from the first meeting to the last meeting (intervention phase) for the two groups differed (six weeks for the seventh graders, seven weeks for the eighth graders). To correct for this when comparing the number of office referrals, the total number of referrals for each student was divided by the number of weeks lapsed for that particular phase. Because baseline and follow-up included eight weeks for all participants, the total number of referrals for these phases was divided by eight. The number of office referrals for the intervention phase was thus divided by six for the seventh graders, and by seven for the eighth graders. The resulting number, labeled "referrals per week" was used for analysis of each student.

In order to investigate whether increases occurred in rational thinking and behavior from session to session, a written exercise was presented at the beginning of each group meeting (see Appendix D) in which the participants were given an anger-inducing situation and were asked to pretend that they were actually in that situation, then write down what they would think and what they would do. These qualitative questions were scored based on whether the response was rational or irrational. A rational response was one in which the student applied the principles of REBT in an attempt to control his/her anger by controlling their thinking. An irrational response was one in which there was no evidence of cognitive

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intervention to reduce anger.  Participants were also asked to rate their level of agreement (using a four-point Likert scale) on statements based on four attributions—effort, ability, luck, and task difficulty—for their anger.  Four statements were presented, one for each attribution, and responses to each revealed the extent to which a particular attribution affected the student's anger given the scenario presented.  Student responses to each scenario can be found in Appendix E.   The REBT knowledge test scores, office referrals per week, and responses to anger-inducing scenarios were used to evaluate the effectiveness of the training program.

## 6. RESULTS

Descriptive statistics, paired-sample $t$ test results, and effect sizes for the REBT knowledge test are reported in Table 1 (all tables and figures are located in the Appendix). Descriptive statistics for baseline referrals, intervention referrals, and follow-up referrals, as well as effect sizes for comparisons between these groups are reported in Table 2. Both groups took the REBT knowledge test at the same time, prior to the intervention, so that the effectiveness of the treatment program could be evaluated. As expected, there were no significant differences between the pre-test scores of the two groups, $t$ (15) = -1.02, $p$ > .05. Consequently, the two groups were combined for some of the subsequent analyses. Each research question was addressed for the overall sample (n=16), as well as for subgroups based on grade (seventh, n=8; eighth, n=8). Paired sample $t$ test results were adjusted using the Bonferroni technique, to control for inflated Type I errors that may result from conducting multiple contrasts.

<u>Participants' Mastery of REBT Knowledge</u>

The REBT-based anger management intervention produced significant gain in knowledge of REBT principles and anger management strategies. ANOVAs for repeated measures revealed significant differences in knowledge acquisition across the three conditions: pre-test, post-test, and follow-up for the overall group, $F$ (2, 30) = 41.62, $p$ < .001; the seventh graders, $F$ (2, 14) = 11.53, $p$ < .002; and the eighth graders, $F$ (2, 14) = 39.08, $p$ < .001. Change in knowledge was defined by the REBT knowledge test. Multiple comparisons were evaluated via $t$ test using the Bonferroni correction. As indicated in Table 1, paired sample $t$ tests indicate a significant increase from pre-test to post-test for the overall sample, $t$ (15) = -9.01, $p$ < .001; the seventh graders, $t$ (7) = -4.60, $p$ < .005; and the eighth graders, $t$ (7) = -10.58, $p$ < .001. Significant increases are also indicated from pre-test to follow-up for the overall sample, $t$ (15) = -3.35, $p$ < .01 and the eighth graders $t$ (7) = -3.66, $p$ < .01. The program failed to produce (statistically significantly) greater knowledge of REBT principles from pre-test to follow-up for the seventh graders, $t$ (7) = -1.57, $p$ > .0083, although the difference was in the expected direction.

Effect sizes were calculated for each of the above comparisons (Cohen, 1988). As indicated in Table 1, all comparisons except one yielded effect sizes higher than 1.0, which is considered strong (Cohen, 1988). The seventh graders pre-test to follow-up comparison, yielded an effect size of .73. This

effect size is considered to be moderate to large according to Cohen, even though it failed to produce a significant $t$.

A comparison between the seventh grade post-test mean score (9.83) and the eighth grade pre-test mean score (3.50), taken at the same time, allowed the eighth grade group to serve as a waiting control; the difference between the means reveal a significant increase in REBT knowledge as a result of the group sessions, $t(14) = 4.31$, $p < .002$. This strategy allowed certain threats to internal validity, such as history, maturation, etc., to be eliminated as explanations for the increase in REBT knowledge.

Participants' Level of Office Referrals

The results based on office referrals as an index of effectiveness are not robust, but they are encouraging. In fact, the initial analyses using office referrals as the dependent measure in a repeated ANOVA revealed no significant difference among the office referral means across three time periods (baseline, intervention, follow-up) for the overall sample, $F(2, 30) = 1.43$, $p > .05$; the seventh graders, $F(2, 14) = 2.71$, $p > .05$; and the eighth graders, $F(2, 14) = 1.49$, $p > .05$ (see means and standard deviations in Table 2).

Even though the overall $F$ values were not statistically significant, follow-up analyses were conducted to determine effect sizes. Seven of nine mean differences were in the expected direction. Because the likelihood of finding statistically significant effects is decreased when the sample size is small, effect size analysis is particularly useful, i.e., it provides a standardized estimate of effect strength without regard to sample size. Analyses reveal a moderate effect for all participants from baseline to follow-up (.63), moderate to large effects for the seventh graders from intervention to follow-up (.71) and eighth graders from baseline to follow-up (.72), large effects for the seventh graders from baseline to follow-up (.86) and eighth graders from baseline to intervention (.86), all reflecting positive change.

A comparison of the office referrals per week between the seventh grade follow-up phase and the eighth grade baseline phase office referrals per week allowed the eighth grade group to serve as a waiting control group; there was a (borderline) statistically significant decrease in office referrals between these conditions following the intervention, $t(14) = -2.11$, $p = .05$.

In summary, a downward trend for office referrals per week was found for the overall sample, as well as the seventh and eight grade subsamples. As indicated in Figure 1, the mean number of office referrals per week decreased from baseline to intervention, and from intervention to follow-up for the overall sample. At a more molecular level, the number of office referrals per week for the seventh grade sample increased from baseline to intervention, then decreased from intervention to follow-up, for an overall decrease from baseline to follow-up. The eighth grade sample decreased from baseline to intervention, but increased slightly from intervention to follow-up, resulting in an overall decrease from baseline to follow-up.

Weekly Anger-Inducing Scenarios

The data obtained from the weekly anger-inducing scenarios were tallied to determine if rational thinking, and stated rational responses (actions), increased over the intervention phase. For example, the following response was assigned to the "rational" category. The, response when given the scenario, "You are standing in the lunch line when another kid cuts in front of you. You start to feel angry. What are you thinking?" was, "I don't care because it's only one person and I do it all the time". Results indicate that the level of rationality of thoughts remained stable for the overall group; however, their stated level of rationality of actions increased. An example of a stated rational response (action) regarding the above situation was , "Ask them to get to the end of the line". The seventh graders increased in both rational thinking and reported actions. The eighth graders decreased in their level of rational thoughts, but their stated level of rational actions increased. Generally speaking, of the six graphs (thinking and action for each of the three groups) four showed a trend toward increased rationality, one showed a decrease, and one remained stable. Mean rationality scores for each scenario are reported in Table 3

Attributional data from the scenarios were tallied to determine if internal attributions (effort, ability) increased, while external attributions (task difficulty, luck) decreased. Increased internal attributions and decreased external attributions are referred to as "positive" trends, while decreased internal attributions and increased external attributions are referred to as "negative" trends. Generally speaking, of the twelve data sets (each of the four attributions for each of the three groups), seven illustrate a positive trend, three a negative trend, and two remained stable. Interestingly, all three of the data sets that illustrate

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a negative trend are for effort. The data sets for ability and luck all illustrate either a positive trend, or remained stable. All data sets for task difficulty showed a positive trend. Trendlines for the four attributions for all participants are shown in Figure 2. Mean attribution ratings for each scenario are reported in Table 4.

When asked during the final group meeting to rate their level of agreement (strongly disagree, disagree, agree, strongly agree) to the following statement: "In these sessions, I learned to control my thinking," only one subject disagreed. Of the others, nine agreed, and six strongly agreed.

The purpose of this study is to evaluate the utility of an REBT-based anger management training program for middle school children in a rural school setting. Analysis of the results indicates that the program was effective in significantly increasing the participants' knowledge of REBT concepts, decreasing their number of office referrals, and increasing their stated level of rational actions. Overall, the participants reported that they learned to control their thinking as a result of the program.

## 7. DISCUSSION

<u>REBT Knowledge Test</u>

The anger management group therapy program used in this study was designed to provide background knowledge of Rational Emotive Behavior Theory (REBT) principles and strategies to students, and to assist the participants in applying these principles to anger-inducing situations in their everyday lives, via instruction and role-playing. Overall, the REBT-based anger management intervention produced a greater knowledge of REBT.

The evaluation of REBT knowledge gain was conducted to determine the extent to which the participants acquired sufficient background understanding of the theory to use it for controlling their anger/aggression. In the literature addressing the acquisition of REBT knowledge, most research studies measure knowledge gain through the use of measures of irrational beliefs, such as the Irrational Beliefs Test (Jones, 1968) and The Idea Inventory (Kassinove, Crisci, & Tiegerman, 1977). These tests measure each participant's level of rational thinking based on the 11 irrational beliefs outlined by Ellis. According to a meta-analysis conducted by Gossette and O'Brien (1993), rational emotive education programs resulted in gains on such measures in 53% of the 245 studies reviewed. However, these measures do not test specific knowledge of REBT principles, as the current study does. In fact, a literature search revealed only two studies that attempted to test knowledge of specific REBT concepts.

One such study (Harris, 1976) supplemented a rational thinking inventory with a test of rational emotive education content (REEC), aimed at testing the acquisition of concepts taught in a rational emotive education program. The study targeted fifth and sixth grade students (volunteers), and was developed to teach internal locus of control, self-acceptance, self-awareness, self-confidence, effectiveness, and tolerance. When compared to a human development intervention group, attention-placebo group, and no treatment group, the REE program was found to produce greater knowledge of the concepts taught when tested directly following treatment, and at a 4-week follow-up.

The Test of Cognitive-Behavioral Principles (TCBP) was developed for use as a dependent measure in a study conducted by Friedberg et al. (1998). The test consisted of 28 true/false questions, tapping principles of cognitive-behavior theory, the broad category under which REBT falls. Subjects in

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this study were depressed adults in a psychiatric inpatient cognitive therapy program, consisting of individual psychotherapy and counseling, assertiveness training, family therapy/conjoint marital treatment, and group psychotherapy and psychoeducation. They also received a notebook containing educational information about cognitive-behavioral therapy. Analysis of the results illustrated that the patients' knowledge of cognitive-behavioral principles significantly increased over the course of their treatment. Results of the present study indicate positive results, similar to those of Harris (1976) and Friedberg et al. (1998); participants acquired knowledge of REBT concepts, and, in general, maintained this knowledge over time. The current study addresses a population that is distinct from those earlier studies. In addition, no specific emotional or behavioral problems were targeted by the group instruction in those studies. So, results showing positive REBT knowledge gains can now be generalized to rural middle school children with conduct problems.

Office Referrals

All subjects except for one strongly agreed or agreed that they learned to control their thinking as a result of the anger management program, and there is some empirical evidence available to support these self-reports. For example, the eighth baseline office referrals (per week) decreased relative to the seventh grade mean office referrals (per week) following the group sessions. Also, an examination of the mean number of office referrals per week showed a decreasing trend for the overall group and both grades from baseline to follow-up. The positive treatment effects found for the intervention and follow-up phases are encouraging. These positive results are consistent with those found by Block's (1978) group rational emotive mental health program for Hispanic and Black 11th and 12th graders, who were identified as high risk, failure, and misconduct-prone. This 5-session program resulted in higher GPA and less incidents of disruptive behaviors and class cuts when compared to alternative treatment and no treatment control groups. The Rational Emotive group also showed the greatest improvement on all measures over an extended period of time. Similarly, results from another study revealed positive outcomes. A rational-emotive group for adolescents with Conduct Disorder showed more rational thinking, as well as a decrease in depression and anger expression (Morris, 1993). Others (Zelie, Stone, and Lehr, 1980) have also found positive results following individual rational behavior counseling. Urban seventh, eighth, and ninth graders

were chosen because they were referred to the office as a result of misbehavior; however, Zelie et al. differed in that it did not utilize group therapy sessions, but rather, conducted individual rational behavior counseling upon the child's arrival to the office following misbehavior, before meeting with the vice principal. Recidivism rate, a measure of office referrals made following the initial referral and counseling session, was used in conjunction with rating scales completed by the teacher to determine the effectiveness of the counseling session. The rational behavior counseling was found to be effective in increasing attention to classwork and homework, decreasing the behavior that warranted the initial office referral, and reducing the number of subsequent office referrals in general. In fact, the recidivism rate of the untreated control group was nearly three times that of those who received the counseling. The counseling did not result in significantly higher teacher ratings for overall classroom behavior or teacher-student relationship.

The work of Block (1978), Zelie et al. (1980), and Morris (1995) is important because they evaluated the effectiveness of Rational Emotive programs for school children with conduct problems, and are similar to the current study in some respects. However, they are different in that they address different populations. The literature has not addressed the effectiveness of Rational Emotive training for children with behavior problems within the rural middle school setting. Additionally, while Zelie et al. examined office referrals as the dependent measure (as in the current study does) the individual training they provided in conjunction with a misbehavior is quite different from the group sessions used in the current study. Nonetheless, results are somewhat similar (and positive) across the studies.

The office referral data revealed promising results, suggesting that the interventions produce positive gains; however, other explanations are possible. For example, the data obtained may be inaccurate. According to the school's protocol for keeping records, students receive one referral to the office only after being given a number of disciplinary slips by classroom teachers prior to that. This procedure creates inflated numbers in the later stages of the recording phase. That is, it is possible that the student actually misbehaved a number of times during previous phases, rather than the one in which the office referral was given. Given this delayed recording strategy, it is possible that the data in the later stages (i.e., treatment and follow-up) reflects an underestimate. This practice may have inflated referrals and led to a reduced treatment effect. Additionally, the criteria for ongoing office referrals were very

inclusive. Because of the vague nature of the referral record entries (i.e. some simply said "5 disciplinary slips", or "insubordination"), it was necessary to include all office referrals, in order to "capture" those related to anger. In some cases, students were sent to the office for behaviors unrelated to anger management, such as missed homework or tardiness. The exact number of office referrals that were not related to anger is unknown because the disciplinary slips were not available and no further detail was provided for "insubordination" referrals.

Assuming that the participants' self-reported beliefs and the office referral data are valid measures, another explanation exist for the lack of robust statistically significant improvement in office referrals; despite the participants' apparent belief that they learned to control their thinking, the students may not have applied what they learned. It is difficult for any individual to think rationally when put in an anger-inducing situation, i.e., during "emotional hijacking". During the emotional flooding of the brain, an aggressive response is not mediated by thought (Goldman, 1995). The participants of this study were selected because they were identified as having an especially difficult time controlling their anger. Perhaps they behaved like the participants described in Slaby and Guerra's (1988) study of aggressive juveniles; those individuals failed to use cognitive mediation to control their anger.

The positive results found in this study reflecting actual changes in behavior are consistent with conclusions drawn by Hajzler and Bernard (1991), who conducted a meta-analysis of 46 published outcome studies and unpublished dissertations on the effectiveness of Rational Emotive Education (REE). As in the current study, the group receiving treatment was compared to a control group in all of the studies, except for those reporting case studies. And like the current study, most (all but three) of the studies cited in this meta-analysis used a pre-test/post-test design. These studies aimed at reducing out of control behavior in school, but focused entirely on high school students, and used dependent measures such as measures of irrationality, teacher observation of class cutting and attention to classwork and homework, recidivism rate, and grade point average. A decrease in behavior problems was found in 56% of the studies aimed at behavior change. Of the studies of behavior change utilizing follow-up measures, all maintained some level of post-test gains at follow-up. Specifically, decreases in disruptive behavior and class cutting were among the behaviors consistently maintained, and are most relevant to the current study's findings. These

results, coupled with current findings, suggest that Rational Emotive training can be effective in reducing behavior problems in children at both the high school and middle school level.

Gossette and O'Brien's (1993) findings in a meta-analysis of the effectiveness of REBT for changing behavior in youths were not as impressive. They found that of 278 comparisons between REBT and other treatments, obtained from 33 unpublished doctoral dissertations, only 25% of the studies showed positive outcomes of REBT. When broken down into the type of outcome reported, it was found that 53% of the studies reported a decrease in irrational beliefs as measured by irrational beliefs scales, while only 17% of the studies reported positive gains on measures of behavior. The highest success rate overall (32%) was found for studies that utilized a waiting control, as the current study does, although only 2% of the studies showed success for the current study's target group—troubled youths. It is important to note that the majority (75%) of the studies reviewed in this meta-analysis used questionnaires to measure outcomes, rather than authentic data, such as the office referrals. When actual behavior change is the focus, positive results are more difficult to obtain, particularly for children. Result s from the current study provide evidence that suggests positive behavioral outcomes can be obtained for middle school aged rural children. Results from these two meta-analyses seem to lead to the same conclusion as the current study with respect to actual behavior change; REBT-based programs may be effective to some extent, but the power of its influence may be modest when actual behavior change is the criterion.

Weekly Anger-Inducing Scenarios

The seventh grade group showed an increase in both rational thinking and reported actions, as illustrated by their responses to anger-inducing scenarios provided at the beginning of each group session. The eighth graders' and the overall group also increased in their rational actions on paper, although their rational thinking did not increase. Once again, emotional hijacking may explain why the eighth graders showed an increase in rational actions when responding to in-session scenarios, while these improvements were not reflected by a statistically significant decrease in office referrals. It is easier to respond appropriately to anger-inducing situations on paper than it is when faced with real-life situations, where emotional hijacking can occur (Goleman, 1995).

The attributions data reveal an overall improvement, in the form of increased internal attributions over the intervention phase. At the end of the intervention phase, the subjects reported a higher level of ability to control their anger, and reduced beliefs regarding the role that luck and task difficulty (to control anger) play in making them angry. Even so, participants did not express increasing effort over the treatment and follow-up phases. Zillmann (1993) found that when one considers the intent of others in a possibly anger-inducing situation one may be better able control their anger. For example, drivers may be less likely to respond negatively to an erratic driver if that driver is perceived to be in the midst of an emergency. Similarly, Dodge (1985) suggested that children respond aggressively when they negatively interpret events and see others as hostile. Participants in the current study may have reduced the number of office referrals if they had expended more effort in the mediating processes.

Summary

In general, REBT-based anger management group activities used in this study led to increased knowledge of REBT principles, and to moderate decrease in office referrals. Furthermore, in many cases, maintenance was evident after an eight-week follow-up period. Also, an overall increase in internal attributions and stated rational actions in response to anger-inducing scenarios is evident. The results of the current study most closely reflect conclusions drawn from the meta-analysis conducted by Hajzler and Bernard (1991); they reported that rational emotive education (REE) was effective in decreasing irrationality, increasing internal locus of control (although effort did not increase in the current study), and decreasing behavior problems in a variety of school-aged populations. The present study is unique. It identifies aggression-reducing outcomes for a group-based REBT treatment in the general school setting for rural middle school students.

Limitations and Implications for Future Research

There are a number of limitations. One is small sample size. Although the nature of group intervention requires small groups, future research should be conducted with more groups. The current study is also limited because data were taken from only one school in a rural southern state. Research using subjects from a more representative sample of children is needed.

Using office referrals as an operationalization of treatment effect is also limiting. As explained in the "Office Referrals" section, office referrals were used to determine the extent to which the subjects used what they learned; the nature of these referrals for the particular school in which the intervention took place limited the utility of the information obtained from them. Specifically, the "delayed" recording system may have led to an increased number of referrals in the intervention and follow-up phases, resulting in an underestimate of the treatment's effect. Additionally, the referral criteria were too inclusive and vague, and the behaviors included should be better operationalized for future studies.

The results of this study suggest that the REBT-based anger management intervention has promise in teaching children with a history of angry behaviors how to think and act more rationally by using the concepts of Rational Emotive Behavior Theory. Some elements from the current program were included to strengthen generalization. Role playing rational responses to real life situations, for example, allowed the participants to practice the steps of REBT in a non-threatening environment while receiving input from the group facilitators and peers. The participants were also taught relaxation techniques to help them remain calm when in anger-inducing situations. This allowed them to use REBT as a cognitive mediator, rather than responding impulsively to situations. Because the current study failed to produce strong evidence of generalization, a greater focus on role-playing and relaxation strategies should be included in future research. It may also be helpful to teach the participants that the perpetrator of an aggressive act may be acting to intentionally elicit a negative reaction. Realizing that the motivation for the perpetrator's activity may be to get others in trouble may lead to less aggressive responses to instigation and more effort to control one's own behaviors rather than being controlled by others. This component may aide in strengthening generalization. Consistent with previous research, the current study illustrates that it is much easier to show a positive change in the acquisition of REBT knowledge than in actual positive behavioral change.

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**APPENDICES**

Appendix A

Protocol of Intervention Activities

Session 1 (introduction):

1.  Group went around the circle and introduced themselves (name, hobbies, something interesting about themselves).  Cookies were given out to foster a comfortable and positive environment.

2.  The session's objectives were explained:

    - Get to know each other

    - Fill out Student Assent and take the pre-test

    - Make nametags

    - Set group rules

2.  Subjects filled out the Student Assent form.

3.  Subjects took the pre-test of REBT knowledge.  Subjects were spread out around the room and were asked not to speak at all (unless they had a question, in which case they were asked to raise their hand and wait to be called upon) to ensure individual work.  The group leader read each test item and the four answer choices aloud as the subjects chose their answer and circled it.  Subjects were instructed to make an educated guess if they were unsure of the answer.

4.  Subjects responded to Scenario #1: You are standing in the lunch line when another kid cuts in front of you.  You start to feel angry.

5.  As an icebreaker, subjects colored nametags to keep in front of them until we all learned their names.  They were encouraged to be creative and let the nametag be a reflection of their personality.

6.  Group rules were set with suggestions from the students as well as the group leaders.  Final group rules were as follows:

    - What is said in this group stays in this group.

    - Keep hands, feet, and other body parts to one's self.

    - Treat others as you would like to be treated.  Respect others.  Don't put others down.

    - Raise your hand if you have something to say, and do not talk unless you are holding the Nurf ball.

7.  Homework was assigned: Think about some examples of times you got angry.

Session 2 (self-statements and their effect on one's feelings):

1.  Subjects responded to Scenario #2: You are sitting in homeroom and the kid sitting next to you says something really mean about your mother.  You start to feel angry.

2.  Subjects gave examples of times since the last session that they got angry.

3.  The session's objectives were explained:

    - Introduction to the A-B-C-D-E model of REBT

    - <u>Beliefs and Behaviors</u> activity

    - <u>Mask-It</u> activity

    - Role-play

4.  A-B-C-D-E model of REBT was introduced.

5.  Subjects completed <u>Beliefs and Behaviors</u> activity.

6.  Lollipops were given out to all subjects for good participation in the Beliefs and Behaviors activity.

7.  Subjects completed <u>Mask-It</u> activity.

8.  Subjects role-played two scenarios of times they got angry in their everyday lives.

9.  Homework was assigned: When you get angry this week, think about your evaluation of the event.

<u>Session 3 (self-statements and their effect on one's feelings)</u>:

1.  Students responded to Scenario #3: You are walking in the hall at school and another kid runs past you quickly, knocking you down.  You start to feel angry.

2.  The session's objectives were explained:

    - Review of A-B-C-D-E model of REBT

    - <u>They Can't Make You Feel</u> activity

    - Role-play

3.  A-B-C-D-E model of REBT was reviewed by breaking down subject's personal examples of when they got angry since the last session.

4.  Lollipops were given out to all subjects for good participation when reviewing the REBT model.

5.  Subjects completed <u>They Can't Make You Feel</u> activity.

6.  Subjects role-played one scenario of times they got angry in their everyday lives.

7. Homework was assigned: When you get angry this week, think about how you are feeling and how your evaluation of the event led to those feelings.

Session 4 (physical and behavioral responses to various feelings):

1. Students responded to Scenario #4: Your best friend is throwing a party and everyone is invited, but you have not received an invitation. You start to feel angry.

2. The session's objectives were explained:

- Review of A-B-C-D-E model of REBT

- Domino Effect activity

- Feel It-Do It activity

- Role-play

3. A-B-C-D-E model of REBT was reviewed by breaking down subject's personal examples of when they got angry since the last session.

4. Subjects completed Domino Effect activity

5. Subjects completed Feel It-Do It activity.

6. Subjects role-played three scenarios of times they got angry in their everyday lives.

7. Homework was assigned: When you get angry this week, think about if your evaluation of the event and reaction to it was rational/healthy. Try to think of healthy reactions to your strong emotions.

Note: No lollipops were given out this session because the 7th grade group was very un-cooperative. Although the 8th grade group was cooperative, they did not get lollipops, in an effort to keep the experiences of the two groups equivalent. The 8th grade group did not notice the absence of the lollipops.

Session 5 (making arguments against negative self-statements):

1. Students responded to Scenario #5: You are at the store with your mother and really want her to buy you some candy, but she won't buy it. You start to feel angry.

2. The session's objectives were explained:

- Review of A-B-C-D-E model of REBT

- Changing Your Feelings activity

- Role-play

3. A-B-C-D-E model of REBT was reviewed by breaking down subject's personal examples of when they got angry since the last session.

4. Lollipops were given out to each subjects as they contributed to the review of the REBT model.

5. Subjects completed <u>Changing Your Feelings</u> activity.

6. Subjects role-played two scenarios of times they got angry in their everyday lives.

7. Homework was assigned: When you get angry this week, think abut your evaluation of the event and try to refute negative evaluations.

<u>Session 6 (relating the A-B-C-D model to interpersonal and self-esteem issues):</u>

1. Students responded to Scenario #6: A friend tells you that there is a really bad rumor goingn around school about you. You start to feel angry.

2. The session's objectives were explained:

- Review of A-B-C-D-E model of REBT

- <u>Don't Let Them Get to You</u> activity

- Role-play

3. A-B-C-D-E model of REBT was reviewed by breaking down subject's personal examples of times their self-esteem was lowered.

5. Subjects completed <u>Don't Let Them Get to You</u> activity.

6. Subjects role-played two scenarios of times they got angry in their everyday lives.

7. Homework was assigned: When peers hurt your self-esteem this week, break the experience down into the A-B-C-D-E model.

8. Lollipops were given out to all subjects for good participation in the session.

<u>Session 7 (perspective-taking/empathy):</u>

1. Students responded to Scenario #7: You volunteered to read a story you wrote to your English class. You were really proud of the story and thought it was really good, but everyone whispered and laughed as you read it. You find out later that the whole class was making fun of your story. You start to feel angry.

2. The session's objectives were explained:

- <u>From Their Point of View</u> activity

- Role-play

- Review for post-test

5. Subjects completed <u>From Their Point of View</u> activity.

6. Subjects role-played one scenario of times they got angry in their everyday lives.

7. Subjects reviewed for the post-test. The group leader read the questions with the four answer choices. Subjects raised their hand, and then gave the answer when called on. They were asked to explain why they chose a particular answer. If the answer given was incorrect, other subjects were asked to explain the correct answer.

8. Lollipops were given out to each subject as they participated in the review.

9. Homework was assigned: Try to remember REBT concepts for the test next session, and don't be absent!

Session 8 (wrap-up):

1. Students responded to Scenario #8: You hear a rumor that your boyfriend/girlfriend went on a date with someone else. You start to feel angry.

2. The session's objectives were explained:

- Review for post-test

- Take post-test

- Celebrate the completion of the intervention

3. The post-test was reviewed in the same format as in the previous session.

4. Subjects took the post-test. Subjects were spread out around the room and were asked not to speak at all (unless they had a question, in which case they were asked to raise their hand and wait to be called upon) to ensure individual work. The group leader read each test item and the four answer choices aloud as the subjects chose their answer and circled it. Subjects were instructed to make an educated guess if they were unsure of the answer.

5. Subjects and group leaders celebrated the successful completion of the Anger Management intervention. Subjects were allowed to bring snacks to share and could talk to one another until the end of the class period.

Appendix B

Passport Program Activities

Beliefs and Behaviors

Objectives: (1) To learn how beliefs affect feelings, (2) To learn how beliefs affect behavior.

1. Introduce the lesson by asking the students to think about a recent situation he or she had negative feelings about and to identify the specific feeling.

2. Ask several students if they would be willing to share their situations and the associated feelings. For each situation, ask the student to verbalize the situation that resulted in negative feelings (A- the event), how he or she felt about the situation (C- emotional consequences), how he or she behaved in the situation (C- behavioral consequences), the irrational beliefs that resulted in the negative feelings and behaviors (B- beliefs about the event).

3. Ask the group to help "poke holes" in the irrational beliefs that were identified for each situation (D- disputes). What questions could you ask yourself so you wouldn't be as upset?

4. After each student has shared, ask other students if they also would have felt the exact same way about that particular situation. Elicit opinions, and then explain the following:

> Two people could experience the exact same situation but feel very differently about the situation. For example, if you didn't get asked to a party, you might be devastated. You might be thinking that not being invited means that you are not popular, that you are not ever going to be included with this group of people and that everyone e3lse will think terrible things about you and life will be awful. On the other hand, you might feel disappointed but not devastated. You would probably be thinking that not being invited doesn't necessarily mean that you aren't popular; that it doesn't necessarily mean that you won't be asked in the future; that other people probably won't think much about it; and that even though you wish you had been invited, life isn't awful.

<u>Mask It</u>

Objectives: (1) To recognize and deal more effectively with feelings that are masked by anger, (2) To learn how thinking affects feelings.

1. To introduce the lesson put on a mask and ask students to tell you the purpose the mask serves (elicit ideas such as covering up, hiding parts, etc.).

2. Explain that anger sometimes acts as a mask for deeper feelings such as hurt, pain, shame, or guilt.

3. Read the Mask It story, the true story of a teenager who masked his hurt and pain with anger:

When I was in eighth grade, I used to get really angry. It had a lot to do with the way my dad treated me. He didn't hurt me, but he never said, "I love you" or showed that he cared. It's not that I expected him to even come right out and say he loved me, but he could have at least hinted it. I started to doubt myself, thinking that I must not be worth his love and wondering if it was something I had done. So I figured that if I wasn't worth it, I might as well try to make people mad at me, which would prove that I was no good. My grades fell, I didn't have many friends because I was angry all the time, and I didn't trust anybody. I thought if I wasn't worth it to my dad, I wasn't worth it to anyone else.

My anger was bad. I exploded a lot. I didn't know how to deal with it. I didn't know how to deal with the pain, so I'd just blow up. But because I never told anyone what was wrong, my parents or my teachers would get on me for blowing up, which just made matters worse. I also took everything personally. I got mad at things I couldn't control, and I wouldn't see that I should take charge of what I could control, which was me. I just kept blaming it all on my dad and thinking that if he didn't show me that he cared, I had no choice about being angry.

Now I'm a senior, and things are a lot better. I finally realized that I was covering up my pain with my anger and that it wasn't helping me deal with it. It just made everything worse since I got into trouble for expressing the anger the way I did. My mom sent me to a counselor, and she helped me talk about the pain and look at how the anger was covering it up. We talked about the fact that even if my dad never changes, I can live with it. He probably loves me in his own way, but if he doesn't, it doesn't mean that I'm worthless. I'm not going to let him ruin my life.

I don't get angry anymore, but that took a lot of time.  Now, if I get really mad, I get away and try to think it through.  Usually when I think it through it's not as bad.  I can be more levelheaded.  I also try to deal with one thing at a time so that I don't get overwhelmed by bad feelings and blow situations out of proportion.

My advice to you is to think about your real feelings and deal with them.  Don't cover them up with anger because that just creates more problems.  You can control your anger…it doesn't have to control you.

-Rick, Age 17

4. Distribute paper bags, scissors, markers, and pencils.  Ask them to make paper bag masks, using words or symbols to depict the feelings they mask with anger.  Give the students time to share their masks.

5. Discuss positive and negative aspects of masking feelings with anger.  Encourage students to consider expressing their true feelings by using the process described here:

When you first experience a feeling such as pain, hurt, confusion, depression, or guilt, try to identify more specifically what the event is and what it is about the event that is bothering you.

Then, rather than mask the feelings by getting angry, try to identify what you are thinking.  For example, if your parents are getting a divorce and that is upsetting to you, you might be thinking that it is awful, that you can't stand it, and that there is nothing worse than living in a divorced family.  You might feel very insecure and depressed, but you lash out at your parents.  You say mean things to them, and you let your grades slip as a way to get back at them because you know ho important they feel it is for you to get good grades.  Because you are masking your feelings with anger, your parents may get angry with you or punish you, and you get even angrier.  The longer this cycle continues, the less likely it is that you will be able to express your true feelings.

So, rather than covering up your feelings with anger, first challenge your thoughts.  Ask yourself questions such as these: Is there really nothing worse than living in a divorced family?  It happens to lots of other families, so am I sure I won't be able to stand it?  Yes, it is a bad experience, and I wish it could be different, but wouldn't it be worse if one of my parents died?

Challenging your thinking can help you put the situation in perspective and help you look at it more rationally. After you have challenged your thinking, you might want to write in a journal about your feelings, listen to music if that helps you feel better, or talk to others about how you are really feeling.

They Can't Make You Feel

Objectives: (1) To learn that nobody "makes" you feel the way you do, (2) To understand the connection between thoughts and feelings.

1.  Introduce the lesson by asking children if they think people always feel the same way about the same situation.  If they agree that everyone doesn't always feel the same way, ask them what they think accounts for the differences, bringing out the fact that the way we think about things influences our feelings.  For example, if you live in a climate where it hardly ever snows, you might be excited if you hear that a snowstorm is brewing because you don't often get to go sledding or skiing.  However, if you live in a climate where it snows a lot, you might be sick of snow and tired of sledding and skiing, so you would be disappointed to hear that a storm is coming.

2.  Read the following scenarios to the group as examples of how two people can feel differently about the same situation:

- Sheniqua and Shantel are standing in the lunch line.  The two girls ahead of them keep turning around and looking at them, then start giggling and whispering.

Suppose you are Sheniqua.  You:

➢  See the two girls looking at you.

➢  Hear them giggling and whispering.

➢  Think to yourself: "They are giggling and whispering about us, and that is awful.  They shouldn't make fun of us."

➢  You feel…angry.

Now suppose you are Shantel.  You:

➢  See the two girls looking at you.

➢  Hear them giggling and whispering.

➢  Think to yourself: "They are giggling and whispering about us.  I don't like it, but I don't have to pay attention to it."

➢  You feel…a little irritated.

- Tyler and Thomas are playing Nintendo. Their older brother comes in and starts yelling at them to get washed for supper.

  Suppose you are Tyler. You:

  ➢ See your brother walk into the room.

  ➢ Hear him yell at you.

  ➢ Think to yourself: "He has no right to yell at us. He is always so mean. I can't stand the way he acts."

  ➢ You feel…angry.

  Now, suppose you are Thomas. You:

  ➢ See your brother walk into the room.

  ➢ Hear him yell at you.

  ➢ Think to yourself: "I hate it when he does this. He yells too much. I don't know why he can't just ask us to get washed up instead of yelling."

  ➢ You feel…irritated.

3. Discuss possible reasons why each pair may have felt differently about the same situation.

4. Read the following scenarios to the group, and ask them to comment on how they would think and feel in each situation:

- You are playing kickball in the neighborhood. One of the older kids comes up to you and says you can't play.

- You are at the grocery store with your mom. You want her to buy you some candy, and she says she barely has enough money for milk and cereal.

- Your class is going to perform in the school assembly. The teacher tells you to dress up in your very best clothes and your good shoes. You don't have any very nice clothes and you only have one pair of shoes.

- Your dad got in trouble with the law and has to go to jail. Kids at school find out and start teasing you about it.

- You are out for lunch recess. You want to play basketball, but there are already too many kids playing.

- Two of your friends are sitting by themselves in the lunchroom. They look over at y ou and start giggling and whispering.

- You just got your hair cut last night. You really like it. Today kids are teasing you about how bad you look.

- Someone in your class asks you to go rollerblading on Saturday, but your stepmother says you can't go.

- Some kids in your neighborhood are going on a picnic. They don't invite you to go along.

- Your little brother comes into your room when you are gone and takes your computer games so he can play it.

4. Point out that in many cases, different group members thought and felt differently about the same situation, and elicit responses as to why this might have occurred.

Domino Effect

Objective: To become more aware of the "domino effect" of acting on one's feelings

1.  Introduce the lesson by explaining that acting on feelings sometimes produces a "domino effect": Often, when a person feels a certain way, he or she acts on that feeling in some way.  The action is prompted by the feeling can cause other things to happen, just as one domino causes the others to fall.

2.  Read the following scenarios to the group and ask them to verbalize possible domino effects of expressing the feeling in the way that is described:

- You are really angry, and you punch the door to your room.

- You are feeling very frustrated about your Spanish assignment.  You just can't figure it out.  You tear up the paper and throw it on the floor as you walk out of the classroom before the bell rings.

- You are upset because your girlfriend/boyfriend hasn't spoken to you all day.  You put your head down in class and fall asleep.

- You got caught smoking in the bathroom.  The teacher who caught you tells you to go to the office.  You are mad and tell the teacher to get out of your face.

- You have been wanting to go on a church ski trip, but your parents said they wouldn't give you the money.  You just open a letter from you grandma, and out falls $50.  You are so excited that you shout and turn your radio up real loud.  It is midnight.

- You are mad at one of your friends, so you start talking about her to another group of kids.  Some of the things you say are a bit exaggerated.

3.  Ask the group to share some examples from their own experiences.

Feel It, Do It

Objective: To understand the connection between feelings and behavior.

1.  Show the group a card with a feeling word written on it (frustrated, afraid, upset, jealous, sad, excited, worried, nervous, angry, disappointed).  For each word, ask the group to share some things that they might do when experiencing that feeling.  For example, if the feeling word is "angry", the students may respond, "throw things," "scream," and "punch something."

2.  For each response, ask the group to evaluate whether the action is rational (healthy) or irrational (unhealthy).  Be sure to elicit rational and irrational responses for each feeling.

3.  Ask the students to give share strategies for cutting down on irrational responses to their feelings.

Changing Your Feelings

Objectives: (1) To learn that feelings can change, (2) To learn how to change feelings by changing thoughts.

1. Introduce the lesson by asking students to raise their hands if they think:

- They can control how they feel.

- Other people can control how they feel.

- Situations "make" them feel sad, glad, mad, and so on.

- They can change their feelings if they work at it.

2. Briefly discuss the fact that students can change their feelings. Sometimes they won't change them from bad to good or from sad to glad, but hey might feel less sad or less bad about something.

3. Discuss the following process with students:

- Identify the situation that you have a negative feeling about and would like to change. For example, maybe you feel very upset because your best friend ignored you on the bus this morning.

- Next, think about what you are telling yourself: that it is terrible that your friend ignored you, that it must mean he or she thinks you're not worth hanging out with anymore, or that you'll never be friends again.

  Now, challenge those thoughts by asking yourself questions like these:

- Where is the evidence that we'll never be friends again? Just because he ignored me, does that necessarily mean he doesn't think I'm worth being with? Could there be another reason for ignoring me, like maybe he was in a bad mood or had family problems at home or something?

- If you answer these challenges, you can come up with new ways of looking at things and this can help reduce the intense negative feeling. For example, it doesn't mean you will feel good about being ignored, but you might think I through differently and not assume that your friend doesn't like you or that you'll never be friends again.

4. Ask students to think of a time in the last week or two that they have felt mad. For each example, ask the student what he or she was thinking in relation to that event. For example, if you were mad because

your parents made you do some chores you didn't want to do, you might have been thinking that parents shouldn't make kids do things they don't want to do, that you can't stand doing chores, and that it isn't fair that you always have to do boring things.

5. Ask the group to help work through each example, identifying the event, the feeling, the thoughts, the challenges, and the new feeling.

Don't Let Them Get to You

Objective: To learn effective ways to deal with teasing, gossip, and put-downs.

1. Introduce the lesson by asking students to raise their hands if they have ever been teased or been victims of gossip or put-downs. Indicate that this is very common, and elicit from students how they feel when they experience this.

2. Ask the group to suggest strategies that they have used or that they think could be helpful in handling such situations.

3. Ask the group to decide which of these strategies they think are most helpful and would work best in situations such as this. Allow time for students to react and to discuss the feasibility of the suggestions.

4. Using the REBT model ask the group to identify examples of teasing, gossip, or put-downs and use the model to generate things they could say to themselves to reduce anger, depression, and upset feelings.

From Their Point of View

Objective: To develop the ability to see things from another's perspective.

1. Read the following scenario: My mom is going out of town, and she is taking me to stay with my aunt. My aunt doesn't have any kids my age, and she lives in the country. I will be there three days with my little baby cousins.

2. Ask the group for different viewpoints related to this scenario. Point out that different individuals often think differently about the same situation. Elicit other examples. For instance, you think you should get to stay up late because tomorrow is Saturday, but your parents think you should go to bed at your usual bedtime so you won't be crabby. Ask students to take the perspective of the parent, as well as their own perspective.

3. Ask the group to verbalize the point of view of each individual in the following scenarios:

- Sara is having trouble in math. Her father wants her to get a tutor but Sara doesn't like this idea.

- Allison and Emily are fighting because Allison didn't sit by Emily at the assembly.

- Damian's parents let his brother, who is a year older, do more than Damian gets to do.

- Amber has a science test tomorrow. She wants to go skating tonight, but her parents think she should stay home and study.

- Gabriel's dad doesn't want him to ride his bike along a busy street to the hockey rink. Gabriel doesn't see why he can't do it.

Appendix C

Pre-Test/Post-Test of REBT knowledge

Pre-Test/Post-Test of REBT knowledge

1. REBT focuses on which of these:

    A. The past

    **B. The present**

    C. The future

    D. All of these

2. What does the "C" stand for in the A-B-C-D-E model of REBT theory?

    **A. Result of a self-statement**

    B. Evaluation of an event

    C. Argument against a negative self-statement

    D. The setting of an event

3. What is the primary assumption of REBT?

    A. Others control how we behave

    B. Others control how we think

    **C. Our thoughts controls how we feel**

    D. Our behavior controls how we feel

4. REBT focuses on striving for which of these:

    **A. Rational thinking**

    B. Good grades

    C. Perfect behavior

    D. Social acceptance

5. Which of these is not considered an appropriate feeling according to REBT:

    A. Sadness

    B. Fear

    **C. Rage**

    D. Frustration

6. What does the "A" represent in the A-B-C-D-E model of REBT theory?

A. Result of a self-statement

B. Evaluation of an event

C. Argument against a negative self-statement

**D. The setting of an event**

7. Which of these is considered an appropriate statement according to REBT:

   A. "I should be captain of the football team"

   B. "Amy must be my girlfriend"

   **C. "I would like to be class president"**

   D. "I ought to get an A on the math test"

8. What does the "D" stand for in the A-B-C-D-E model of REBT theory?

   A. Result of a self-statement

   B. Evaluation of an event

   **C. Argument against a negative self-statement**

   D. The setting of an event

9. According to REBT, what should you do if you get pushed in hallway at school?

   **A. Consider why the person pushed you**

   B. Report the person to a teacher

   C. Push the person back

   D. Give the person a mean look

10. What does the "B" stand for in the A-B-C-D-E model of REBT theory?

    A. Result of a self-statement

    **B. Evaluation of an event**

    C. Argument against a negative self-statement

    D. The setting of an event

11. What controls how you feel?

    A. How others treat me

B. **My thoughts**

C. The situations I am faced with

D. How much I succeed

12. According to REBT, which of these is an inappropriate reaction to failing a test?

    A. Yelling at the teacher

    B. Feeling like a failure

    C. Giving up

    D. **All of these**

13. REBT focuses on an individual's _____:

    A. Ability

    B. Anger

    C. **Thoughts**

    D. Grades

14. According to REBT, what must an individual change in order to feel better in a particular situation?

    A. **Their thoughts about the situation**

    B. Their behavior in the situation

    C. The situation itself

    D. Others' feelings about the situation

15. REBT strives to help individuals do which of these:

    A. Handle painful emotions

    B. Change their own behavior

    C. Think rationally

    D. **All of these**

*The following question was added to the post-test and served as a measure of participants' perception of how helpful the intervention was:

16. In these sessions, I learned to control my thinking:

    A. Strongly agree

B. Agree

C. Disagree

D. Strongly disagree

Appendix D

Weekly Scenario Worksheet Example

Name: _____

2 Minutes

Scenario:

You are standing in the lunch line when another kid cuts in front of you.  You start to feel angry.

1.  What are you thinking?

   _____

   _____

   _____

   _____

2.  What do you do?

   _____

   _____

   _____

   _____

3.  Rate how much you agree with each of these statements based on the above scenario.

|  | Strongly Disagree | Somewhat Disagree | Somewhat Agree | Strongly Agree |
|---|---|---|---|---|
| A.  I try hard to control my anger. | 1 | 2 | 3 | 4 |
| B.  It would be hard for anyone to control their anger. | 1 | 2 | 3 | 4 |
| C.  I got angry because it was my unlucky day. | 1 | 2 | 3 | 4 |
| D.  I am good at controlling my anger. | 1 | 2 | 3 | 4 |
| * E.  I got angry because the kid that cut in front of me was being mean. | 1 | 2 | 3 | 4 |

* Because this item is not related to the four core attributions, it was not considered for data analysis.

Appendix E

Tables and Figures

Table 1

Descriptive Statistics and Tests of Significance Showing Pre- to Post- Treatment and Pre- to Follow-up

Gains in Knowledge of REBT Principles

| Group | n | M | SD | T | Df | Effect Size |
|-------|---|---|----|---|----|-------------|
| Overall | | | | | | |
| Pre-test | 16 | 3.56 | 1.67 | | | |
| | | | | -9.01* | 15 | 2.71 |
| Post-test | 16 | 10.44 | 3.18 | | | |
| Pre-test | 16 | 3.56 | 1.67 | | | |
| | | | | -3.35* | 15 | 1.01 |
| Follow-up | 16 | 6.19 | 3.27 | | | |
| 7th Grade | | | | | | |
| Pre-test | 8 | 3.63 | 1.51 | | | |
| | | | | -4.60* | 7 | 2.22 |
| Post-test | 8 | 9.38 | 3.34 | | | |
| Pre-test | 8 | 3.63 | 1.51 | | | |
| | | | | -1.57 | 7 | .73 |
| Follow-up | 8 | 5.75 | 3.81 | | | |
| 8th Grade | | | | | | |
| Pre-test | 8 | 3.50 | 1.93 | | | |
| | | | | -10.58* | 7 | 3.30 |
| Post-test | 8 | 11.50 | 2.83 | | | |
| Pre-test | 8 | 3.50 | 1.93 | | | |
| | | | | -3.66** | 7 | 1.29 |
| Follow-up | 8 | 6.63 | 2.83 | | | |

Note. Significance after Bonferroni adjustment: * $p < .008$. ** $p = .008$

Table 2

Descriptive Statistics and Effect Sizes for Baseline to Intervention, Baseline to Follow-up, and Intervention to Follow-up Comparisons for Office Referrals Per Week

| Group | n | M | SD | Effect Size |
|---|---|---|---|---|
| Overall | | | | |
| Baseline | 16 | .44 | .25 | |
| | | | | .30 |
| Intervention | 16 | .36 | .29 | |
| Baseline | 16 | .44 | .25 | |
| | | | | .63 |
| Follow-up | 16 | .30 | .19 | |
| Intervention | 16 | .36 | .29 | |
| | | | | .24 |
| Follow-up | 16 | .30 | .19 | |
| 7th Grade | | | | |
| Baseline | 8 | .36 | .17 | |
| | | | | -.30 |
| Intervention | 8 | .44 | .33 | |
| Baseline | 8 | .36 | .17 | |
| | | | | .86 |
| Follow-up | 8 | .25 | .19 | |
| Intervention | 8 | .44 | .33 | |
| | | | | .71 |
| Follow-up | 8 | .25 | .19 | |
| 8th Grade | | | | |
| Baseline | 8 | .52 | .30 | |
| | | | | .86 |

Table 2 (Continued)

| | | | | |
|---|---|---|---|---|
| Intervention | 8 | .29 | .23 | |
| Baseline | 8 | .52 | .30 | |
| | | | | .72 |
| Follow-up | 8 | .34 | .19 | |
| Intervention | 8 | .29 | .23 | |
| | | | | -.24 |
| Follow-up | 8 | .34 | .19 | |

Table 3

Mean Rationality Scores for Thinking and Action Scenario Items Across Eight Group Sessions

| Group | Session | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Thinking | | | | | | | | |
| 7th Grade | .37 | .40 | 0 | .57 | .75 | .86 | .57 | .29 |
| 8th Grade | 1.00 | .12 | .29 | .33 | .67 | .43 | .37 | .25 |
| Overall | .69 | .30 | .18 | .46 | .71 | .64 | .47 | .27 |
| Doing | | | | | | | | |
| 7th Grade | .62 | .60 | .25 | .86 | .75 | .71 | .71 | .43 |
| 8th Grade | 1.00 | .25 | .57 | .67 | .33 | .71 | .75 | .75 |
| Overall | .81 | .38 | .45 | .77 | .57 | .71 | .73 | .60 |

Note. Qualitative items were scored 1 (rational) or 0 (irrational).

Table 4

Mean Ratings for Effort, Task Difficulty, Luck, and Ability Scenario Items Across Eight Group Sessions

| | Session | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Group | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Effort | | | | | | | | |
| Overall | 2.69 | 2.77 | 2.27 | 2.31 | 2.93 | 2.64 | 2.27 | 2.53 |
| 7th Grade | 2.50 | 3.40 | 3.00 | 2.43 | 3.38 | 2.86 | 2.43 | 2.86 |
| 8th Grade | 2.88 | 2.38 | 1.86 | 2.17 | 2.33 | 2.43 | 2.13 | 2.25 |
| Task Difficulty | | | | | | | | |
| Overall | 2.38 | 2.62 | 2.27 | 2.38 | 1.86 | 2.07 | 2.13 | 2.20 |
| 7th Grade | 2.25 | 2.60 | 2.00 | 2.43 | 2.00 | 2.00 | 2.29 | 2.29 |
| 8th Grade | 2.50 | 2.63 | 2.43 | 2.33 | 1.67 | 2.14 | 2.20 | 2.13 |
| Luck | | | | | | | | |
| Overall | 2.38 | 2.15 | 2.18 | 2.15 | 2.14 | 2.29 | 2.07 | 2.27 |
| 7th Grade | 2.38 | 2.20 | 3.00 | 2.29 | 2.38 | 2.57 | 2.29 | 2.43 |
| 8th Grade | 2.38 | 2.13 | 1.71 | 2.00 | 1.83 | 2.00 | 1.88 | 2.13 |
| Ability | | | | | | | | |
| Overall | 2.38 | 2.46 | 2.27 | 2.54 | 2.29 | 2.64 | 2.33 | 2.40 |
| 7th Grade | 2.38 | 2.60 | 2.00 | 2.71 | 2.38 | 2.86 | 2.29 | 2.43 |
| 8th Grade | 2.38 | 2.38 | 2.43 | 2.33 | 2.17 | 2.43 | 2.38 | 2.38 |

Note. Items were rated on a 4-point scale (1 = strongly disagree, 4 = strongly agree). For healthy movement, internal attributions (effort, ability) should increase toward strongly agree, while external attributions (task difficulty, luck) should move toward strongly disagree.
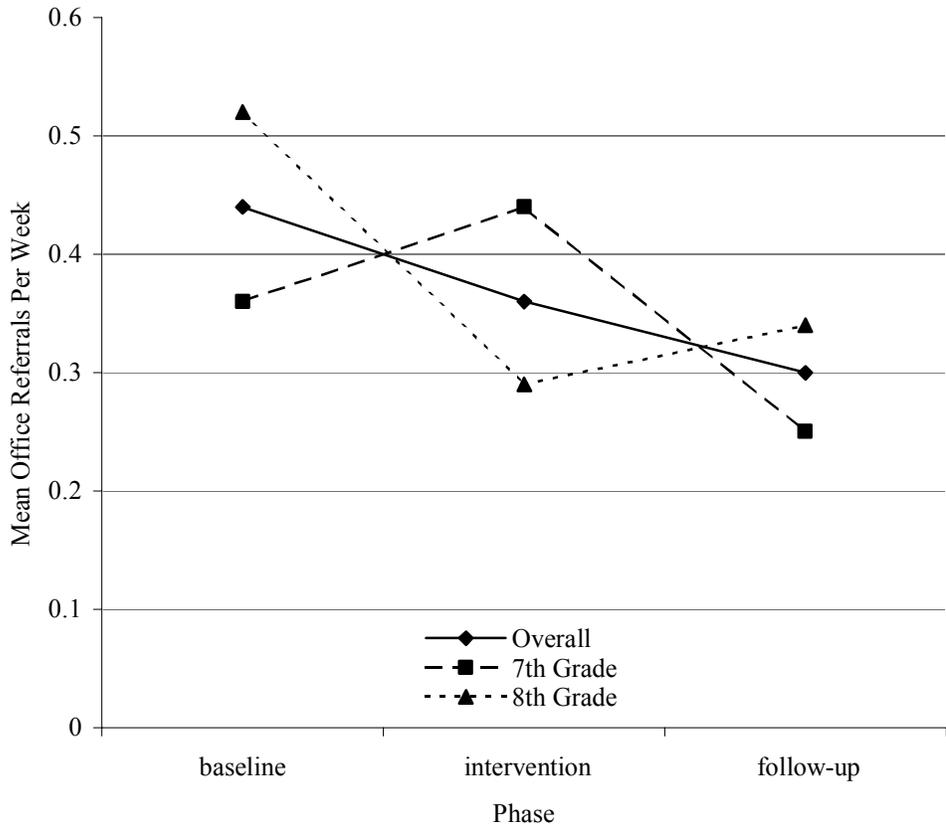
Figure 1: Graph of office referrals per week means for the overall sample (n = 16), the

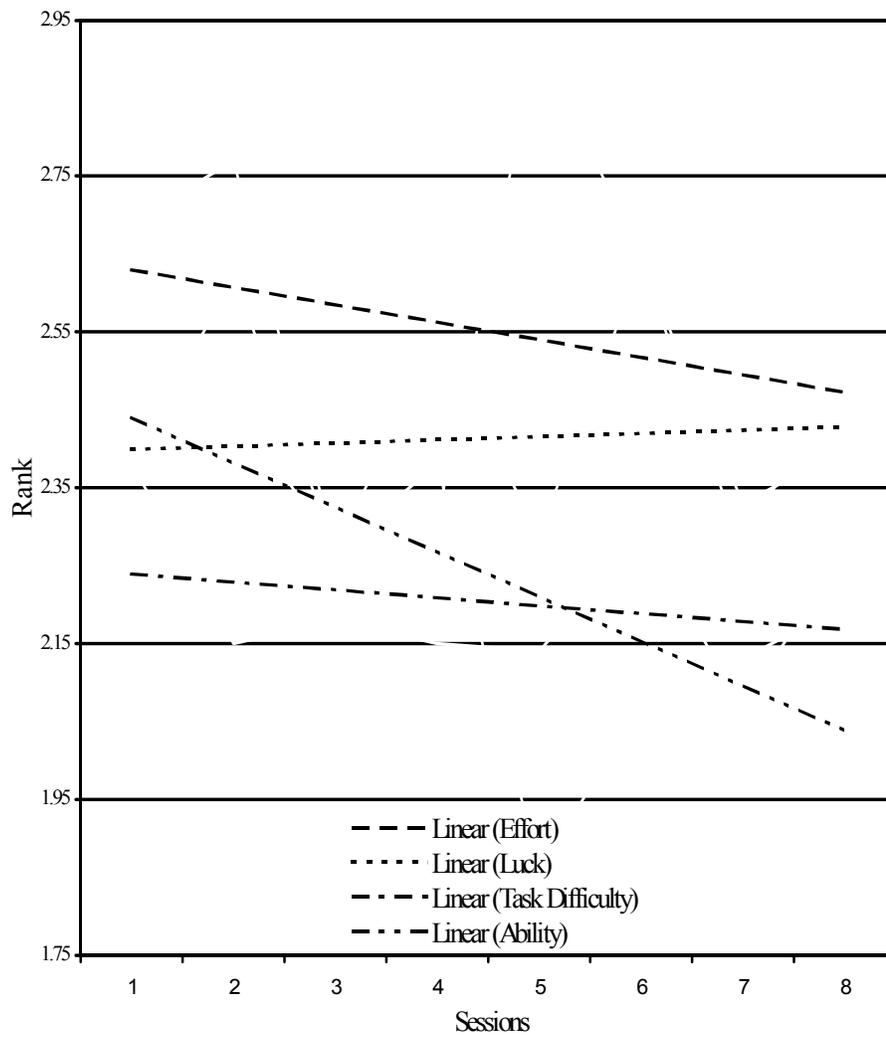seventh grade group (n = 8), and the eighth grade group (n = 8)

Figure 2: Trend graphs for internal and external attributions for the overall sample from daily scenario worksheets

**VITA**

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