A Cognitive Behavioral Intervention Used to Improve Anger Management Skills with Second and Third Grade Students

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Abstract

The purpose of this study was to examine the effectiveness of a cognitive-behavioral therapy group and its effect upon the reduction of 2nd and 3rd grade student’s anger and aggressive behavior. The facilitator’s goals were to teach the participating students the essentials of anger, help them recognize their anger, teach them the differences between controlled anger and out of control anger, introduce techniques to help them manage their anger and teach them alternative methods of expressing their anger.

Each student participant completed the Feelings, Attitudes and Behaviors Scale for Children (FAB-C), pre and post intervention. Each participant’s respective teacher completed the Behavior Assessment System for Children- Second Edition, Teacher Rating Scales (BASC-2-TRS), pre and post intervention. It was hypothesized that 1) Students in the treatment group would self report lower Problem Index scores on the FAB-C as compared to the non-treatment group. It was expected that 2) Scores in conduct on the FAB-C would be significantly lower in the treatment group following intervention as compared to the control group on the self-report FAB-C and 3) Teachers would score the treatment group lower on externalizing behavior as compared to the control group on the BASC-2, after the intervention. Analyses indicated no significant differences were found for Hypothesis 1, Hypothesis 2 and Hypothesis 3. However, although no significant difference was found for Hypothesis 3 the results did approach significance, suggesting that future research may consider utilizing a larger sample size to examine the effectiveness of a cognitive-behavioral therapy group and its effect on reducing student’s anger and aggressive behaviors.
Children have been referred to as one of the most neglected groups in mental health (United States Department of Health and Human Services: Substance Abuse and Mental Health Services Administration, 2003). The United States Government indicates that 21% (15.3 million) of the nation's children suffer from emotional disorders that include anger and aggression (United States Public Health Service, n.d., The Federal Interagency Forum on Children, 2006). Anger and aggression are indicators of many emotional disorders that may warrant mental health attention. Anger is defined as a feeling that is oriented toward some real or perceived grievance. It can vary from mild irritation to uncontrollable rage (Anger, 2003, Dunbar, 2004). Aggression is defined as overt or suppressed hostility, either innate or resulting from continued frustration. It can be directed outward or toward oneself (Aggression, 2006).

Existing research has indicated that students who exhibit anger outbursts and aggressive behavior in elementary school are more likely to display antisocial and violent behavior in adolescence and in young adulthood (Webster-Stratton, Reid & Hammond, 2004). These anger and aggressive tendencies tend to interfere with the development of the student’s academic success (Feshbach & Feshbach, 1987, Williams et al, 2004, McLoyd, 1998). The failure to recognize that students who suffer from emotional issues often struggle with being “ready to learn” is not uncommon (Horton, 1996). Early intervention is advocated to break the cycle of academic failure and violence (August, Realmutto, Hektner, and Bloomquist, 2001).

Students, who are taught to constructively manage their anger, are provided with the opportunity to properly focus on academic success (Feshbach & Feshbach, 1987). Individual and group counseling have been the most utilized techniques in which children
learn skills to control their anger (Shechtman & Ben-David, 1999). Although both individual and group therapy have been employed as the primary means for teaching anger management skills to children, research has focused more attention on group counseling (Hoag & Burlingham, 1997).

Group counseling is a powerful tool by which students learn to manage their anger (Hayes, 2001). It is an effective method of providing access to mental health services; it offers the opportunity to learn constructive coping skills while improving social skills (Delucia-Waak, 2000; Hayes, 2001). Group counseling when used with young students may guard against the development of Oppositional Defiant Disorder and Conduct Disorder in children (Shechtman & Ben-David, 1999).

**Anger Related Disorders**

**Oppositional Defiant Disorder (ODD).** To be diagnosed with oppositional defiant disorder, a child must exhibit a pattern of defiance, disobedience, negative and hostile behaviors (APA, 2005). The child may also exhibit behaviors such as temper tantrums, displays of anger, resentment and engage in deliberate attempts to annoy others; these behaviors are in excess of what is typically observed in same aged children who are on the same developmental level (Fletcher-Janzen, & Reynolds, 2003). ODD is reported to affect between 2-16% of the population (APA, 2005). The etiology of ODD is unknown; it is believed to be a combination of genetic, biological and environmental factors (Webster-Stratton, 1993). Age of onset is typically before eight years of age (Loeber, Green, Lahey, Christ, & Frick, 1992), with boys showing symptoms earlier than girls (McGee, Feehan, Williams, & Anderson, 1992). A significant proportion of ODD cases may present as a developmental precursor to Conduct Disorder (House, 2002).
Conduct Disorders (CD). Conduct Disorders are characterized by severe aggressive behavior and antisocial acts that involve the infliction of pain on others and/or interfere with the rights of others (e.g., physical and verbal aggression, stealing and/or committing acts such as vandalism) (APA, 2000). CD is reported to affect between 3-9% of the population (U.S. Department of Health and Human services, 1999, Fletcher-Janzen. & Reynolds, 2003). Approximately, half of the students identified with this disorder are also diagnosed with an internalizing disorder (i.e., anxiety or depression). Studies have indicated that children who present with early onset conduct disorder and/or oppositional behaviors are at risk of adverse outcomes in adolescence and adulthood (Mash & Wolfe, 2002, Quinn, 2002, Lochman, 1992). Included among these adverse outcomes are educational difficulties and underachievement (Fergusson, & Lynskey, 1998).

Academics and Behavior

Fergusson & Lynskey (1998) followed a birth cohort from eight years old to eighteen years old. The study examined long term outcomes of children who displayed early conduct problems and their adjustment in early adulthood. The research indicated that children who present with early conduct behaviors experience adjustment problems in early adulthood. These adjustment difficulties included educational difficulties (i.e. reading delay, dropping out of school), juvenile delinquency and substance abuse (Fergusson & Lynskey, 1998).

According to Arnold (1997), children who exhibited aggressive and disruptive behavior, at an early age, had poorer pre-literacy skills than children who did not display these behaviors. Children who exhibited higher levels of aggressive behavior presented lower levels of academic involvement; consistent with those results were the findings that
teachers may not provide individual attention to students who exhibit negative behavior. Therefore, to facilitate academic development, programs addressing negative behavior should be implemented at a pre-school age (Arnold, 1997).

A longitudinal study that examined behavioral, cognitive and demographic factors was associated with early school dropouts; 475 seventh graders (males and females) were followed for four years. Measures included teacher identification of aggressive students, teacher ratings on the Interpersonal Competence Test, the student’s socioeconomic status, peer group affiliation, maturational status and chronological age. The results of this study indicated that more than 80% of the males and 47% of the female students that exhibited high levels of aggressive behavior and low levels of academic achievement dropped out of school, by their eleventh grade year (Cairns, et al., 1989).

Regarding the effectiveness of group or individual counseling, there does not appear to be a clear consensus among therapists and researchers about which modality should be employed, when treating angry clients (DiGiuseppe & Tafrate, 2003). Furthermore, the few studies that have examined individual counseling, for the treatment of anger management, have focused on adults not children.

One of these studies by Mackay, Barkham & Stiles (1998) focused on the psychodynamic-interpersonal modality. The study examined the technique of “staying with one’s feelings,” when experiencing an anger state. The rationale behind “staying with one’s feelings,” during sessions, is for the client to learn the antecedents & consequences of the difficult feelings he/she is experiencing, in relation to others. This technique provides the individual with the opportunity to understand his/her feelings and work through them. The participant attended 18 individual sessions. She was able to
express her anger by finding solutions to the interpersonal problems that were underlying to her distressing experiences. The results of this study suggested that “staying with feelings” was an effective anger management technique. Observer ratings of emotion indicated that the client’s experience of anger changed, from an atypical expression of anger to one described as normal, during the course of the sessions (Mackay et al., 1998).

Chemtob et al. (1997) examined 15 Vietnam War veterans suffering from combat related Post-Traumatic Stress Disorder (PTSD) who were experiencing severe anger difficulties. Participants were randomly assigned into two groups. The control group consisted of seven participants. They received only routine care. The treatment group consisted of eight participants who received individual Anger Training. The Anger Training was based on a modality of cognitive behavioral therapy and included progressive muscle relaxation, cognitive restructuring and anger coping skills. Participants with severe chronic PTSD and high anger benefited from the 12-session intervention that targeted the anger symptoms. Participants who completed the anger training reported an increased capacity to control their anger. Their gain was maintained at an 18-month follow-up (Chemtob et al, 1997).

DiGiuseppe (1999) stated that there is a tendency, in research, to focus on group therapy; 80% of anger and aggression research studies employed group therapy. He attributed this to the fact that the majority of treatments, for anger, are preformed within correctional institutions, substance abuse programs, hospitals, residential centers and schools (DiGiuseppe, 1999).

Most of the research on the treatment of anger has examined behavioral, cognitive or cognitive–behavioral therapies; other theoretical orientations have not presented much
empirical support. The absence of the many theoretical orientations, from the outcome of the research, has resulted in a limited view of how to best treat anger (DiGiuseppe, 1999, Glancey & Saini, 2005). Although this limited view exists, a wide range of interventions are being implemented to help clients, with anger and aggressive behaviors (Glancy & Saini, 2005).

Glancy & Saini (2005) examined five meta-analytic reviews that were published within the past decade. The reviews studied the effectiveness of various treatments of anger and aggression. Based on those meta-analytic reviews and the qualitative reviews of research, there is evidence that the treatment of anger and aggression has positive outcomes for clients of diverse backgrounds. One of the purposes of the review was to include criteria from other treatment approaches such as psycho-educational, psychodynamic and relaxation therapies as well as cognitive-behavioral techniques. The results indicated that the different treatment approaches demonstrated similar and positive results in reducing anger and aggression. The study also indicated that cognitively based approaches typically completed, in brief counseling formats, have consistently demonstrated positive results in reducing anger and aggression. Research indicates that as therapy sessions increase in length so too does the attrition rate of participants; research also demonstrated that although the outcomes of anger and aggression management across treatment approaches remain equal, it is most effective in a brief group therapy format (Glancy & Saini, 2005).

Group Therapy

As mental health issues have become increasingly prevalent in academic settings, funding for these issues have become limited. Consequently, the level of need and the
lack of funding have contributed to an increase of group counseling in the schools (Hoag & Burlingham, 1997).

Group therapy is effective and efficient in promoting a student’s capacity for social interaction and intimacy. Its method is non-threatening, cost effective and allows greater access to a number of students (Kulic, Horne & Dagley, 2004). Anger management group therapy is the modality frequently utilized in academic settings, with children, to reduce disruptive behavior (Nickerson & Coleman, 2006). There are several different types of anger management group therapy interventions (e.g. Anger Control Training, The Dina Dinosaur Treatment Program etc.). The interventions cited below are based on training and teaching diverse skills, identifying the components of anger, teaching social and problem solving skills, and teaching coping skills (e.g. relaxation training).

**Anger Control Training (ACT).** The Anger Control Training (ACT) developed by Feindler (as cited in Fiendler & Star, 2003) focuses on three components of anger: 1) physiological responses; 2) cognitive processes; and 3) behavioral responses. Their research has indicated that aggressive students perceive triggering stimuli to be intentional and react aggressively to establish their power and protect their egos. Students are taught to cognitively restructure their statements and recognize their distorted thought process’ thus helping them develop alternative causal attributions and a non-aggressive perspective. The student is then trained in problem solving, assertive and communication skills that are consistent with effective conflict resolution (Feindler, & Starr, 2003).

**The Dina Dinosaur Treatment Program.** The Dina Dinosaur Treatment Program focuses on training young students in social skills and problem solving. It emphasizes emotional
literacy, empathy, friendship, communication skills, anger management, interpersonal problem solving, school rules and academic success. The intervention uses such techniques as puppet and role modeling, coaching and reinforcement during structured activities and visual imagery and play.

Participants were families who requested treatment. They were randomly assigned to one of four groups: 1) the parenting-training only; 2) the child-training only; 3) the combined parent training and child training intervention; and 4) the waitlist control group. No significant differences were noted at baseline. At post treatment, results showed that the combination of parent and child training was more effective than parent training alone and all three intervention conditions were superior to the control group. One year later, all significant changes noted at post treatment were maintained (Webster-Stratton & Reid, 2003).

Anger-Coping Therapy. Anger-Coping Group Therapy is a treatment modality frequently used, in schools, to intervene with aggressive behavior. The Nickerson and Coleman (2006) study examined the processes and outcomes of an anger-coping therapy group. The student participants were experiencing either anger management difficulties or were diagnosed with an emotional disturbance (ED). The intervention was based on a social cognitive model of anger-arousal; the principles were consistent with a social information-processing model of aggression and were adapted from cognitive behavioral interventions for anger management. Each session focused on identifying cognitive deficits, promoting self-instruction, self-awareness and building problem solving skills through didactics, discussion and activity. Results indicated that students with ED, despite their many exhibited interpersonal and behavioral difficulties, were able to
engage in some of the processes associated with group therapy. During the course of group therapy, each parent indicated that his/her respective child’s behavior had improved. The results provided some additional support for the use of structured therapeutic interventions which enabled the students to develop healthy interactions (Nickerson & Coleman, 2006).

**Anger Control Program.** Lochman, Nelson and Sims (1981) Anger Control Program was based on a systematic model of anger arousal principally derived from Novaco’s study (as cited in Lochman, Nelson & Sims, 1981), with aggressive adults. The anger arousal model is conceptualized as a stimulus event that can be viewed as a potential problem along with the child’s attempted response to solve the problem. The problem may have resulted from interpersonal relationship difficulties or an environmental event that triggered frustration (e.g. school work). It is not the event itself that triggered the child’s emotional response; it is the child’s underlying cognitive processing of the event. The child’s labeling and attribution of the event clearly affected his/her state. The program used structured, experimental group discussions with aggressive students and promoted student self-awareness.

Prior to and following the anger control intervention, the teachers completed the Walker Problem Behavior Identification Checklist (Lochman, Nelson & Sims, 1981). At pretest eight students had difficulties on the Acting out scale and four displayed difficulties on the Distractibility and Immaturity scale. At post-test eight students had lower Acting out scores, three students had higher Acting out scores and one was unchanged. The author suggested that the reason for the latter may be attributed to the group being more effective with students exhibiting higher Acting out behaviors rather
than with students exhibiting higher Distractibility/Immaturity scales (Lochman, Nelson & Sims, 1981).

**Progressive Muscle Relaxation (PMR).** Lopata (2003) examined the effectiveness of progressive muscle relaxation (PMR) as an intervention for preventing aggression in elementary school students diagnosed with emotional and behavioral disorders (EBD). The goal of PMR was to improve daily performance by reducing factors such as arousal, anxiety, tension and stress thus producing a relaxed and calm state that is inconsistent with aggressive behavior. Relaxation procedures differ markedly from other interventions because they target the physiological response system implicated in arousal and aggressive behaviors. When compared to students who did not participate in PMR, the study found that students who did participate in PMR showed significant decreases in physical aggression, following the treatment phase. Students who did participate in PMR demonstrated an increase in aggression three weeks later; however, their aggression was below pre-intervention aggression. The author suggested that continuing “booster” sessions of PMR may maintain positive preventative effects (Lopata, 2003).

**Rationale for the Present Study**

Cognitive behavioral interventions are the most widely researched treatment options for treating anger management in children (Glancy & Saini, 2005). Best practices suggest that interventions be empirically based (Shcechtman, 2002). Cognitive behavioral therapy has been used to help clients lower the intensity of their anger episodes. In a retrospective study of 64 clients, Tang (2001) evaluated the effectiveness of an anger management treatment program using a cognitive behavioral approach. The post treatment scores indicated a significant reduction of the participants
overall experiences that related to intense anger and their significant improvement in cognitive behavioral coping and anger control. Williams and colleagues (2004) used a cognitive behavioral therapy program to reduce children’s anger and aggressive behavior. Significant improvements were noted on the children’s self-report measures of anger and on the parent rating scales of overt aggression and hostility. Research has supported cognitive behavior therapy as an effective modality for group counseling based on its structured nature and demonstration of accountability (Shcechtman, 2002). Additionally, literature has suggested that there is validity to the use of affect, cognition and behavior when treating students with anger difficulties (Gable & Van Acker, 2004). The purpose of this study was to examine the effectiveness of cognitive behavioral group therapy in reducing student’s anger and aggressive behavior. The approach aims to help individuals recognize and modify their cognitive, behavioral and physiological responses to perceived provocation by implementing strategies that are designed to build better problem-solving skills (McGinn & Sanderson, 2001).

The Current Study

The proposed study implemented an anger management treatment group adapted from Nemeth, Ray, & Schexnayder, Anger Management Training for Children (2002). The six session anger management group had five goals: 1) to teach students the essentials of anger; 2) to help students recognize their anger; 3) to teach students the differences between controlled anger and out-of-control anger; 4) to introduce techniques to help students manage their anger; and 5) to teach students alternative methods to express anger. A description of the sessions is described below.
Session 1: Students were introduced to anger; they learned to define and recognize their anger; they learned to recognize their physiological responses to anger. They had an opportunity to share their anger experiences and discussed their past methods of handling anger. The students engaged in activities such as self-drawings, matching faces to feelings and therapeutic games.

Session 2: Students learned to recognize their anger trigger points, how they used anger as a defense and how they think themselves into feeling anger. They learned the difference between being angry and in-control vs. being angry and out-of-control. The group facilitator assisted the students in exploring faulty belief systems that typically led to anger. Students were taught how anger is a mask that is used to cover up other feelings.

Session 3: Students were introduced to the concept that it was okay to get angry; it is the method in which he/she expresses anger that makes anger acceptable or not acceptable. Students were assisted to explore their feelings when they became angry (e.g. with their parents), make healthy choices about expressing anger and how to be in charge of their anger. The concept that anger management skills are a learned behavior was introduced. Students learned that feeling anger was acceptable and must be identified and shared. Students were taught active vs. passive interaction.

Session 4: Students learned the three tones of voices that are used to express their feelings: 1) the Wimpy voice; 2) the Out-of-Control voice; and 3) the Strong voice. Students were encouraged to express their feelings using each one of the voices; each child practiced a different tone of voice. The group members had to identify the specific
voice; each voice was matched to a tone, questions were asked and students were encouraged to use the voice that allowed them to be heard.

**Session 5:** Students were introduced to alternative methods for coping with anger. They were taught deep breathing and relaxation techniques. Additionally, students prepared a plan of action in anticipation of an anger experience and were taught effective ways of communicating their feelings utilizing “I feel” statements.

**Session 6:** Students reviewed what they learned. They were reminded to control their anger, be in control of themselves and to choose to feel angry when it was necessary for them to be heard. Students discussed their anger management plan-of-action and tested their knowledge of anger management skills. When the sessions were completed all students, in the group received a certificate of participation (Nemeth, Ray, & Schexnayder, 2002).

Each student participant completed a Feelings, Attitudes and Behaviors Scale for Children (FAB-C) pre and post intervention. Each participant’s teacher completed a Behavior Assessment System for Children-Second Edition-Teacher Rating Scale (BASC-2, TRS) pre and post intervention. The FAB-C is a self-report measure that assesses a range of emotional and behavioral problems in students 6 to 13 years of age. The 48-item scale assesses six dimensions: 1) conduct problems; 2) self-image; 3) worry; 4) negative peer relations; 5) antisocial behaviors; and 6) a lie scale. The BASC-2 (TRS) is a comprehensive measure that helps the individual understand behaviors, emotions and adaptive skills of children and adolescents 2 to 21 years of age. It assesses the broad domains of externalizing and internalizing problems, school problems and adaptive
functioning. The BASC-2 TRS and the FAB-C will be used as monitoring tools to determine if the cognitive behavior intervention was successful.

The study investigated the following specific hypotheses:

Hypothesis 1: Students in the treatment group will have a significantly lower self-report score on the Problem Index than the students in the control group.

Hypothesis 2: Students who received anger management training will obtain significantly lower scores in conduct behavior than students who did not receive the training.

Hypothesis 3: Students who received anger management training will score significantly lower in Externalizing Behavior index than students in the control group.

Method

Participants

Participants were twelve 2nd and 3rd grade students referred by the guidance counselor, at their South Florida elementary school. The guidance counselor sent letters of consent home to the parents of the participants.

Materials

Participants completed the Feelings, Attitudes and Behaviors Scale for Children (FAB-C) pre and post the intervention. The FAB-C developed by Breitchman (1996) is a self-report measure that assesses a range of emotional and behavioral problems in students 6 to 13 years of age. The format of the scale is a normative scale (i.e., yes or no responses) and takes approximately 25 minutes to complete. The 48-item scale assesses six dimensions: 1) conduct problems; 2) self-image; 3) worry; 4) negative peer relations;
5) antisocial behaviors; and 6) a lie scale. The internal reliability of the FAB-C for ages 8 to 9 year olds falls between .60 to .76, the test-retest reliability is .60 (Beitchman, 1996).

Discriminate validity was identified by computing sensitivity and specificity, which is the ability of the scale to correctly detect clinical and non-clinical cases. Results indicated an overall rate of 71.4%, suggesting that the Problem Index may serve as a valid screening measure. Construct validity was evaluated using clinician ratings derived from a semi-structured interview using the Psychiatrist Diagnostic Form (PDI) with a sample of 131 children. Results indicated positive correlations with the hypothesized clinical dimensions. Additionally, construct validity was computed using clinician ratings derived from the FAB-C and the Children’s Depression Inventory (CDI) with a sample of 133 children. Results indicated an overall measure of 65.9%, indicating that the FAB-C may be used as an effective screener for identifying children who may benefit from a more detailed assessment (Beitchman, 1996).

Teachers completed the Behavior Assessment System for Children-Second Edition (BASC-2): Teacher Rating Scales (TRS) prior to and following the implementation of the intervention. The BASC-2 (TRS), developed by Cecil Reynolds and Randy Kamphaus, measures adaptive and problem behaviors in an academic setting. It is a comprehensive rating scale that is completed by the teacher in an effort to help an evaluator assess and identify children and adolescents (2-21 years) with behavioral and emotional disorders. The BASC helps in making differential diagnoses of specific categories of disorders such as those identified in the Diagnostic Statistical Manual-IV-TR. The BASC-2 is composed of 15 clinical and adaptive scales which describe behaviors using a likert scale (i.e., 1 = never to 4 = always). The scale takes
approximately 10 to 20 minutes to complete and contains 139 items. There is an acceptable internal consistency (.88 with children) and test-retest reliability (.84 with children).

The validity of the BASC-2 is determined by identifying the Validity Index summary. The summary consists of an F Index, a Response Pattern Index and Consistency Index. The F (fake bad) Index assesses the possibility that the teacher is overly negative when rating the student’s behaviors. High scores on this index indicate that the student’s behavior is extremely maladaptive or the teacher has rated the student’s behavior as more severe than is warranted. If the F score falls in the caution or extreme caution range, the evaluator should consider that the TRS results are negatively skewed.

The next area to consider is Response Pattern. The Response Pattern identifies forms that may be invalid because the teacher is inattentive to the presented items. The Response Pattern Index provides the number of times item responses differ from the previous items. A low number indicates the respondent choose the same letter pattern throughout the entire form. A high number indicated that the respondent may have responded in a cyclical pattern throughout the entire form. A valid TRS form will result in a Response Pattern Index score that falls between the two extremes.

The Consistency Index identifies a respondent’s answer to similar items; it sums the values of the score differences between the items. The sum of these differences is actually a measure of consistency or inconsistency. A high score indicates that the results should be interpreted with caution and may render the instrument invalid (Reynolds and Kamphaus, 2006).
Procedure

The researcher met with the individual students, after obtaining parental consent, and offered each student the opportunity to participate in the study. The researcher explained the purpose of the study and its procedures. The students were informed that they have the option not to participate in the study as well as the option to withdraw from the study at any time, without negative consequences. Once the students agreed to participate, they were randomly assigned to one of two groups; an anger management cognitive behavior treatment group or a wait-list control group. Baseline data was collected from all participants (i.e., anger management cognitive behavior treatment and wait-list control groups) using student-ratings on the FAB-C and teacher-ratings on the BASC-2, which were completed prior to treatment.

The treatment group received six sessions of anger management therapy on a weekly basis. Each session was 45 minutes. The group met at a local elementary school, during the school day. After the six sessions of anger management therapy were provided, follow-up data was collected from all participants (i.e., anger management cognitive behavior treatment and wait-list control groups) using student-ratings on the FAB-C and teacher-ratings on the BASC-2, which were completed following treatment. Teachers were requested to complete the BASC-2 scales within 4 days of the termination of the treatment group. After follow-up data was collected, all participants in the wait-list control group received six sessions of anger management therapy to ensure that each student referred for anger management therapy received treatment. The researcher of this study was the facilitator for both groups.
Treatment

Session 1: Students were introduced to anger; they learned to define and recognize their anger; they learned to recognize their physiological responses to anger. They had an opportunity to share their anger experiences and discussed their past methods of handling anger. The students engaged in activities such as self-drawings, matching faces to feelings and therapeutic games.

Session 2: Students learned to recognize their anger trigger points, how they used anger as a defense and how they think themselves into feeling anger. They learned the difference between being angry and in-control vs. being angry and out-of-control. The group facilitator assisted the students in exploring faulty belief systems that typically led to anger. Students were taught how anger is a mask that is used to cover up other feelings.

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voice; each voice was matched to a tone, questions were asked and students were encouraged to use the voice that allowed them to be heard.

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Session 6: Students reviewed what they learned. They were reminded to control their anger, be in control of themselves and to choose to feel angry when it was necessary for them to be heard. Students discussed their anger management plan-of-action and tested their knowledge of anger management skills. When the sessions were completed all students, in the group received a certificate of participation (Nemeth, Ray, & Schexnayder, 2002).

Results

For each of the three dependent variables the FAB problem index, the FAB conduct scale and the BASC externalizing behaviors index, a difference score was computed by subtracting the post from the pre-test score for each participant. A Bonferroni correction for the analyses was used to determine significant differences between the control and experimental groups. To test hypothesis one, an independent-samples $t$ test was conducted on the problem index difference score. The results of the test were non significant, $t(10) = 1.65, p = .13$. Participants in the control group ($M = 18.8, SD = 21.9$) were not significantly different than those in the experimental condition ($M = 3.3, SD = 7.4$).
A second independent-samples $t$ test was conducted on the conduct scale difference score. The results of the test were non-significant, $t(10) = .53, p = .61$. No significant difference was detected between the control ($M = 9.3, SD = 7.5$) and the experimental group ($M = 6.3, SD = 11.7$).

For hypothesis three, an independent-samples $t$ test was performed on the externalizing behavior scale difference score. The test approached significance, $t(10) = 2.40, p = .04$. This test would have been significant at $p = .05$; however, due to the small sample size and subsequent Bonferroni correction associated alpha value of .02 the results were regarded to be not significant. The control group ($M = 4.0, SD = 4.1$) was not significantly different than the experimental group ($M = -2.8, SD = 5.6$).

**Discussion**

The present study attempted to demonstrate the improvement of second and third grade students’ behaviors utilizing a Cognitive Behavioral Anger Management therapy group. The intervention was adapted from Nemeth, Ray & Schexnayder’s Anger Management Training for Children (2002). The utilization of Cognitive Behavior Therapy (i.e. the awareness of affect, cognition and behavior) to teach students anger management skills has been supported through empirical research to be an effective modality (Gable & Van Acker, 2004; Schectman, 2002); anger management group counseling has been effective in helping students manage their aggressive behaviors (Schectman et al, 1999; DeLucia-Waak, 2000; Hayes, 2001) in the academic environment.

Research has found that group counseling interventions aimed at promoting insight and affective exploration allow children to increase their awareness of aggression
and develop strategies to change their aggressive behavior (Schechtman, 2000; Schechtman & Ben- David, 1999). This has been accomplished through the modality of Cognitive Behavioral Anger Management Group therapy. Although, research has supported that Cognitive Behavioral Anger Management therapy was helpful in reducing behaviors of anger, antisocial behaviors and conduct problems in children (Glancy & Saini, 2005, Fiendler & Star, 2003, Tang, 2001), in the current study this was not evidenced.

The results of the study revealed that the first two hypotheses were not significant; although, the third hypothesis approached significance. The results may be due to various factors. One factor that may have contributed to not significant results was the sample size of the study. The study was conducted with a small sample of students, n=12. While the sample size may have been too small to warrant conclusions, the preliminary results suggest that, with a power of .80 and an alpha of .05 a medium effect size of .5, the recommended sample size for the research to have possible significance would have been 102 participants, with 51 children in each condition.

Another factor impacting the study may have been the lack of heterogeneity among the group participants. Although randomly assigned, to the conditions, the participants were chosen because of a history of behavioral difficulties displayed in their respective classrooms. Shcechtman (2002) determined, for children’s groups to experience success, the groups must be heterogeneous. Ritchie & Huss (2002) suggested that to accomplish heterogeneity, students with difficult behaviors and students with typical behaviors should be grouped together. This allows for modeling of appropriate
behavior, offers the opportunity for constructive social learning to occur and facilitates interpersonal feedback.

In the current study, considerable time was spent using behavior modification techniques to reinforce positive behavior keeping the students on task. The participants had difficulty staying on task and, at times, escalated each others aggressive behavior. These behaviors resulted in the participants’ inability to integrate the presented information. A possible alternative would incorporate the use of typical students who would model pro-social behaviors for the students who exhibited behavioral difficulties. Students may have been more receptive to learning and assimilating the techniques if there were other students who could serve as positive role models.

Research is contradictory regarding children’s self-reporting on standardized measures. Whereas Stanger & Lewis (1993) found that children generally self-reported more problem behaviors, teachers reported less problem behaviors, Edward, Schultz and Long (1995), identified a tendency for children to underreport their behaviors when compared to their respective teachers.

In the current study, hypothesis one stated that the participants in the treatment group will have significantly lower self-report score on the Problem Index than the students in the control group; hypothesis two stated that participants in the treatment group will have significantly lower self reported scores in conduct and anti-social behavior than students in the control group. Both of these hypotheses were found not significant. While hypothesis three, a teacher report stated students who received anger management training will score significantly lower in Externalizing Behaviors than students in the control group, approached significance. Hypothesis one and two addressed
the student’s perceptions of their aggressive behaviors not improving while hypothesis three addressed the teacher’s perceptions of the children’s behavior demonstrating some mild improvement. In the current study, Stanger & Lewis (1993) research was supported while Edward et al. (1995) was not supported.

Although Edward et al. (1995) research was not supported in this study, it is interesting to note that their findings suggested that young students may not be accurate in reporting their behavior, though the use of standardized self reporting scales. Their research supports that when children were asked either open-ended questions in an interview format or in a semi-structured interview format the reported behavior improved as a result of group participation. Both these formats were supported as reliable means for obtaining children’s self report of their behavior (Edward et al, 1995). This suggested that interviewing children may provide a more accurate picture about the student’s behavior than standardized self-report ratings scales.

Although appropriate for the exploratory nature of the current study, the intervention was abbreviated and small, which limited the conclusions that can be drawn. Existing research has also demonstrated that successful outcomes in groups typically run for twelve week increments or more (Seligman, 1996; Kulic, Horne & Dagley, 2004). Due to the short term nature of this study a longer time frame for the intervention may have provided significant results.

Future research should implement the intervention for a longer period of time with a larger sample size to see if significance may be found.

In additions manipulating different components of the anger management group (e.g. behavioral incentive system vs. no behavioral incentive system, homework vs. no
home work, homogeneous group of students vs. heterogeneous groups of students) would possibly help to isolate some of the variables that contribute to the behavioral outcomes. It would also be beneficial to identify ways to replicate some of the components of the anger management intervention in other parts of the school environment. An example may be part of a curriculum unit in a classroom setting; this may help to generalize to a whole class of students versus just targeting a few students. Another possible study would be to compare a child focused individual based intervention compared to a group model to assess which results in a better outcome.

Student’s behavior difficulties evident in the academic environment not only affect the students but the academic milieu as a whole. In addition, the need for early onset anger management therapy is important due to an increased range of adverse outcomes in a student’s later life. If these issues are addressed early the students will be provided an opportunity to manage their own behavior.

Although the findings of this study were not significant, this should not discourage Cognitive Behavioral Anger Management group interventions with students from being implemented. Research has demonstrated the importance and success of implementing empirical based group interventions in the academic environment that address student’s behavioral difficulties (Williams et al, 2004, Webster-Stratton & Reid, 2003). The efficacy of cognitive behavioral anger management treatment groups should be further explored in order to assist schools to find the most suitable practices for helping students manage and control their anger and aggressive behaviors.
References


