An Anger Management Program for Children with Attention Deficit, Hyperactivity Disorder

Deborah Marcus and Mark Mattiko

A seven-step anger management program was developed by a certified therapeutic recreation specialist (CTRS) to facilitate more appropriate expression of anger in children diagnosed with Attention Deficit Hyperactivity Disorder (ADHD). The process followed the assessment, treatment plan, intervention, and evaluation model set by the Standards of Practice for Therapeutic Recreation. Thirty-eight children were enrolled in a 13 week pharmacological trial at a major research institution. The children and their parents independently completed the Pediatric Anger Expression Scale III (PAES III) before and after the anger management intervention and paired t-tests were conducted to ascertain differences. Children perceived no difference in their expression of anger before and after the intervention. Parents reported a reduction in externalization of anger and an increase in the anger control of their children following the intervention.

"Anyone can become angry—that is easy. But to be angry with the right person, to the right degree, at the right time, for the right purpose, and in the right way—that is not easy" (Aristotle, The Nicomachean Ethics in Goleman, 1995, p. ix). The inability to inhibit
inappropriate aggressive behavior can produce retaliatory aggressive responses and set up a vicious cycle which can lead to rejection and reduced opportunities to practice socially acceptable behaviors (Landau, Milich, & Diener, 1998; Newcomb, Bukowski, & Pattee, 1993). Students most prone to aggressive behaviors are those with poor peer relationships (Landau, Milich, & Diener). Children diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) are known to have difficulty establishing friendships with their peers (Barkley et al., 1996). They may also exhibit oppositional defiant disorder and conduct disorder along with other diagnoses associated with aggression (Barkley & Murphy, 1991; Abikoff & Gittelman, 1984).

From clinical interviews, many children with ADHD report that their inability to control their anger results in problems getting along with peers and adults (Mattiko & Marcus, 2003).

The single best childhood predictor of adult adaptation is not school grades nor classroom behavior, but rather the adequacy with which the child gets along with other children (Hartup & Moore, as cited in Schaefer & DiGeronimo, 2000). Being able to successfully interact with peers and cope with difficult feelings during recreational and leisure pursuits are important social and behavioral skills that benefit all children. For many individuals, satisfaction in leisure pursuits is associated with participation in games and sports with groups of people which makes these skills all the more critical (Murphy, 1981).

Research has identified two risk factors in ADHD that may create problems in later life: aggression and impaired social relations (Hinshaw, 1987). These risk factors can lead to incarceration, psychiatric hospitalization and substance abuse (Babinski, Hartsough, & Lambert, 1999; Kellam et al., 1989). Since violence has been recognized as a public health problem (Mercy & O’Carroll, 1988) and elementary school children who demonstrate aggressive acts are more likely to display violent antisocial behavior as adolescents (Farrington, 1991), early intervention appears to be a prudent and worthwhile investment.

Although the etiology and pathophysiology of ADHD are not well understood, treatments exist for this disorder (Szatmari, 1992). Currently, stimulant medications are the first course of treatment and are often a stand alone modality (Glock, Jensen, & Cooper, 1998). Despite advances in psychopharmacology, children medicated for ADHD may still have problems with peers, social contacts and the expression of anger (American Psychological Association, 1994; Landau, Milich, & Diener, 1998). Given the increase in safety fears and the limitations of the medications used to treat ADHD, parents and health care professionals are looking for new ways to treat the symptoms of the disorder.

The literature makes it clear that the use of pharmacotherapy alone is not the panacea for troublesome behaviors surrounding ADHD. Several literature reviews revealed an extensive list of interventions that have been used to address anger and aggression, ranging from empathy training (Fales, 1998) and impulse control education (DuPaul & Eckert, 1998; DuPaul & Eckert 1997; Bloomquist, August, & Ostrander, 1991; Abikoff, Ganeles, Reiter, Blum, Foley, & Klein, 1988; Barkley, Copleand, & Sivage, 1980; Brown, 1980), to behavioral strategizing (Miranda, 2000; Piffner & Mc Burnett, 1997; Timmer, 1995; Strayhorn & Weidman, 1989; Rosen, Oleary, Joyce, Conway, & Piffner, 1984; Konstantareas, 1983), bibliotherapy (Long, Rickert, & Ashcraft, 1993), and peer counseling (DuPaul & Henningson, 1993). The use of cognitive behavioral training, in combination with pharmacotherapy, is now the recommended model of intervention.

Multiple studies have been conducted to test the effectiveness of stimulant medication in children diagnosed with ADHD, but only one large-scale, multi-site study was found to test the effectiveness of the use of behavioral interventions in conjunction with medication. A 14 month randomized clinical trial studying strategies for effective treatment of children diagnosed with ADHD, evaluated the relative effectiveness of the following four treatments:
a) medication management, b) intensive behavioral treatment, c) combined treatment, and d) standard community care (Multimodal Treatment Study of Children with Attention Deficit Hyperactivity Disorder Cooperative Group [MTA], 1999).

The MTA group reported,

For most ADHD symptoms, children in the combined treatment and medication management groups showed significantly greater improvement than those given intensive behavioral treatment and standard community care. Combined treatment did not yield significantly greater benefits than medication management for core ADHD symptoms, but may have provided modest advantages for non-ADHD symptoms and positive functioning outcomes. Although medication is known to reduce negative peer interactions dramatically, increases in positive social behavior are far less robust (p. 1073).

The group also suggested, “Such changes might require intensive and long-term application of the behavioral components of combined treatments” (p. 1080).

Anger management training is an alternative approach used either independently or combined with pharmacotherapy (Abikoff & Gittleman, 1985). This cognitive behavioral intervention appears to have a positive effect in reducing anger reactions, particularly when combined with medication (Klein & Abikoff, 1997; Carlson, Pelham, Milich, & Dixon, 1992; Abikoff, 1991; Abikoff & Gittleman, 1985). Although Hinshaw, Burhmester and Heller (1989) found that stimulant medication paired with anger management training decreased physical retaliation and enhanced impulse control in 24 boys diagnosed with ADHD, relatively few published articles demonstrate the effectiveness of anger management training in children diagnosed with ADHD.

Cognitive behavioral training, along with social skills training, are strategies that are intuitively linked to learning theory. Learning theory suggests that the most positive outcome is achieved through modeled events, retention, motor reproduction, and motivation (Bandura, 1993). Recipients of anger management training need repeated exposure and opportunities to practice identifying their feelings and reactions to those feelings. Grossman (1997) and colleagues found that a violence prevention program reduced aggressive behaviors and increased pro-social behaviors in second and third grade children. The researchers reported that role-playing, modeling and reinforcement were “critical” in the training. Moreover, recitation, reinforcement and the ability to practice strategies over time are at the core of successful behavioral training. Recreation therapists assess and employ interventions specifically aimed at deficits in social and emotional domain areas (American Therapeutic Recreation Association, 2000). According to Peterson and Gunn (1984), learning and practicing appropriate social skills is a vital element of all three therapeutic recreation components (assessment and prescriptive, skill development, and recreation participation).

Finally, a literature search focusing on anger management of children diagnosed with ADHD was conducted (Glock, Jensen, & Cooper, 1998). The review suggested that there is a lack of published knowledge on the successful application of anger management strategies with children diagnosed with ADHD. Although anger management sessions, as part of social skills training, are being conducted by certified recreation therapists (CTRS), no relevant recreation therapy literature has addressed the effectiveness of these interventions with children with ADHD.

Method

While this article emphasizes program description, evaluation data were collected to examine the effectiveness of the anger management intervention. The Pediatric Anger Expression Scale III (PAES) (Jacobs, Phelps, &
Rohrs, 1989) was administered to children enrolled in a 13 week double-blind, placebo-controlled medication trial at a major research institution. A pre/post design was used to query matched pairs (child and one parent) on the children’s expression of anger.

**Participants**

Thirty-eight children (21 males and 17 females) who were admitted to a day treatment research protocol at the National Institutes of Health, Clinical Research Center with the diagnosis of ADHD were matched with one of their parents. The children gave assent and their parents gave their consent to participate in an Internal Review Board approved protocol. The ages of the children ranged from 6–12 with a mean age of 8.4 (SD = 1.85). These patients were children from the local area who were referred, and subsequently went through a vigorous screening process (see James et al., 2001; Sharp, Walter, Marsh, Ritchie, Hamburger, & Castellanos, 1999). When stringent admission criteria were met, children were admitted to a double blind placebo controlled medication study. Children assented to the pharmacological research trial and met the full criteria for ADHD as outlined in the American Psychiatric Association Diagnostic Statistical Manual of Mental Disorders—IV. To ensure ADHD severity, the researchers only recruited participants whose hyperactivity ratings exceeded the 95th percentile on the Conners Teacher Rating Scale Hyperactivity factor (Conners, 1997). In other words, the symptoms experienced by these children were intense and substantial.

Each child’s participation in the study lasted 13 weeks. The protocol design included a set schedule of activities on weekdays from 8:00 am to 3:00 p.m. All children in the protocol attended a recreation therapy treatment group for two hours, 5 times a week, throughout their 13 week admission. A segment of the recreation therapy programming was the anger management group.

After several years of working with pediatric patients with ADHD, the first author, a CTRS, was able to see trends in anger expression emerging as an area of concern through intake information (assessment process). Via assessment, data were gathered from parental reports, interview questions (e.g. What do you do when you’re angry? Are you happy with how you express your anger?) and clinical observations of anger (e.g., slamming doors, cursing, screaming). The need for devising a treatment plan to include anger management as a goal came up repeatedly. Prior medical record review (Mattiko & Marcus, 2003) indicated that 69% of the patients treated for ADHD had anger expression emerge from the assessment as one of their problem areas. In order to address this assessed need, the CTRS developed, conducted, and refined a seven step program.

Realizing the need for an independent, objective review of the children’s behaviors, the CTRS sought to gather quantifiable observations by a knowledgeable adult. Since the education environment was so structured (teacher to student ratio 2:4), the children had little opportunity to display angry behaviors in the classroom. Therefore the teachers were not the best informants for these observations. The CTRS then looked to the parents for quantifying what was already being anecdotally reported via the interdisciplinary team’s social worker’s report that the children were using their anger strategies while at home (taken from weekly telephone interviews).

Formative evaluation showed that anecdotal parental observations were not being captured. To quantify parental observations of their children’s anger, parents were asked to complete the PAES. Review of the literature shows that no data exist for PAES observations by an adult on a child and the CTRS saw this as an opportunity to add to the existing body of knowledge on the PAES. The PAES became a portion of the admissions packet that was given to the parents upon consent of their child to the protocol and again at the time of the discharge conference.
Anger Management Program Development

Step 1: Brainstorming.

The children were asked to brainstorm all possible expressions of anger (both positive and negative). Both positive and negative suggestions were encouraged and deemed acceptable (negative comments about the ideas of other children were not permitted). If the group was inclined to suggest only positive ideas (e.g., take deep breaths, talk to someone about it, walk away), the recreation therapist intentionally offered negative suggestions (e.g., slamming doors, punching walls, hitting others). The process continued until all possible suggestions (~50) from the group were exhausted.

Step 2: Judging.

Each group then reviewed their list of ideas and judged each idea as either positive or negative. Judgments were based on group consensus and determined by oral vote. If the group could not reach consensus, the recreation therapist guided the discussion to include conditions under which the idea might be acceptable. For example, “watching television” was acceptable as long as the program was suitable and the length of time reasonable. After these discussions, the consensus was often that the idea could be either positive or negative, depending on various factors.

Once agreement was reached, a positive sign (+), negative sign (−), or positive and negative sign (+/−) were placed next to each idea. For further reinforcement, positive signs were written in green and negative signs in red to emphasize the appropriateness or lack thereof on each item. The suggestions themselves were written in black.

Step 3: Choosing.

Each child was asked to choose three positive ideas from the list to use as strategies for dealing with angry feelings. Of the three, the children were required to choose at least one strategy that could be used unobtrusively in almost any situation or environment; examples included taking deep breaths, slowly counting to ten, and self-talk and affirmations. Other more noticeable strategies might require advance permission (e.g. crumpling paper, talking to someone). Once selected, the child’s initials were placed next to the chosen strategies. The first three steps of the program took place in one session that lasted between 60–90 minutes.

Step 4: Reciting.

After the initial anger management session (the first three steps above), at the end of each recreation therapy session, the recreation therapist asked the children their chosen strategies. Additionally, the children were asked to recite their anger strategies in situations where (a) there was potential for anger or frustration, (b) immediately before an escalation of emotion, or (c) at an unrelated and unexpected time. In order to help the children remember their strategies, it was suggested that they keep a list of their strategies with them during their daily activities and post them in conspicuous places at home (e.g. refrigerator, bedroom door).

Step 5: Practicing.

The goals of the anger management intervention were to have the children (a) identify and memorize strategies that they chose, (b) implement the strategies during recreation therapy sessions, and (c) integrate these behaviors into the home and school environment. As part of the weekly parental interview conducted by the team’s social worker, the parents were asked how the children had handled anger provoking situations at home during the previous week. This information was then relayed to the recreation therapist. The recreation therapist then reinforced the use of the anger strategies by either praising the child for appropriately using them at home or discussing and exploring how the child could have employed them successfully.

Many opportunities to practice anger man-
agement strategies arose naturally during recreation therapy group sessions. The recreation therapist occasionally contrived situations to provide the children with additional opportunities to practice their anger management skills. Examples of these activities included group initiatives and problem solving challenges limited by parameters and restrictions that rendered the tasks more difficult. During these situations, the children were prompted to use their anger management techniques when necessary and praised for each attempt to do so.

**Part 6: Processing.**

Following these practice sessions, the recreation therapist processed the behaviors of the individual children and the group, as a whole. This took the form of reviewing or re-enacting the situation and evaluating the children’s responses. Role-playing was also used to act out alternative strategies for handling the same situation. The children were asked to anticipate similar difficult scenarios that could arise and consider using their selected strategies that they had recently found to be successful. Finally, there were discussions on how to take the experiences from the current situation and apply it in the future.

**Part 7: Reinforcing Activities.**

By providing environments and setting up opportunities for the children to experience and practice dealing with their anger and frustration, the recreation therapist planned other activities to emphasize the message of managing anger. After the initial session on anger management, subsequent social skills activities included reading stories and playing board games that focused on coping with anger and frustration and then discussing them. These activities collectively served to further explore and reinforce the appropriate expression of anger and frustration. Interested recreation therapists can find a myriad of published games, books and resources to include in their program depending on the goals of their program and on the needs of their clients.

To summarize, steps one through three (brainstorming, judging, and choosing) took place in the initial 1 to 1.5 hours. Step four (reciting) was done a minimum of 5 times a week (at the end of each session). Depending on the need (based on the recreation therapist’s judgment), a child might be asked to recite their strategies anywhere from 2–5 more times throughout the course of each week (time for recitation was negligible). Time spent on steps five and six (practicing and processing) ranged from 1–2 hours per week and approximately 2–3 hours were spent on step seven (reinforcing activities). Therefore over the 13 week admission, each child spent an average of 3 to 5 hours per week working on anger management.

**Instrument**

The PAES III is a 15-item questionnaire that measures anger expression on three subscales: internalizing (anger turned inward directed at the self which may result in depression or guilt), externalizing (either physical or verbal aggressive behaviors), and controlling anger (finding socially appropriate ways to cope with angry feelings). The standardized alpha reliability coefficient was 0.74. Jacobs, Phelps and Rohrs (1989) reported item-total correlations ranging from 0.33 to 0.52, with a standardized alpha reliability coefficient of 0.67 for the three subscales of the PAES. Hagglund et al. (1994) pointed out that the PAES “shows promise” as an anger management tool but warns “. . .that this scale may increase the probability of Type II errors when making group comparisons” (p.300). Face and concurrent validity were also established utilizing the factor structure used in earlier work conducted by Spielberger (For a complete analytic description of the statistical development of the PAES, see Jacobs, Phelps, & Rohrs, 1989).

Each subscale consists of five statements. Responses to the statements are scored as
follows: 1 point for “hardly ever,” 2 points for “sometimes,” and 3 points for “often.” Therefore, the minimum score for each subscale is 5 points and the maximum is 15 points. The developmental lineage of this assessment is important to review. The multidimensional models of anger expression used in this article are based on the work of the State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970). This gave rise to the State-Trait Anxiety Inventory for Children (Spielberger, 1973) and the State-Trait Anger Scale (Spielberger, Jacobs, Russell, & Crane, 1983) which in turn led to the Anger Expression Scale (Spielberger, Johnson, & Jacobs, 1982). Due to the increasing interest in children’s anger, a pediatric user friendly instrument was needed and this led to the development of the PAES. The PAES parallels and shares similar wording with the State-Trait Anxiety Inventory, the State-Trait Anger Inventory, and the Anger Expression Scale. This family of anxiety/anger measurement tools for adults and children share conceptual, verbal, and scoring attributes.

For a comprehensive review of these assessments including an extensive psychometric review, see Spielberger and Sydeman (1994). Even though the literature reports that adults (teachers) have rated children using the PAES, the authors were unable to find published results of other adult raters, including parents.

Data Collection

The PAES III was administered to each child and their parent before and after the intervention. During week one, the children were instructed to complete the questionnaire during an individual assessment session with the CTRS. Approximately 80% of the children were able to read and complete the form independently. The remaining 20% of the children required assistance from the recreation therapist in reading the questions and answers. At week 13 (discharge), the children were asked again to complete the PAES.

The parents received the PAES III as part of the admission packet and were asked to fill it out based on their perceptions of their children’s most frequent responses during periods of anger or frustration. The parents were asked to complete another PAES at the discharge conference. An analysis was conducted to determine the similarities and differences between the pre and post tests of the child and their parent.

Results

A total of 38 matched pairs of children (17 females and 21 males) and parental data were used. Contrary to previously published data on gender differences in anger expression, no significant differences between girls and boys was found (Mattiko, Marcus, & Patrick, unpublished manuscript) therefore, the authors felt comfortable in combining the male and females in the same group. To determine the similarities and differences between the children’s perceptions of anger responses compared to their respective parents, paired t-tests were conducted. The pre/post means, standard deviations and standard errors for the parents’ and the children’s PAES data are shown in table 1 and table 2.

Each child’s scores was compared to his/her parent’s scores independent of the group as a whole. The differences between the child’s and his or her parent’s perceptions of the child’s anger behaviors prior to the intervention were substantial. Although the differences in the child’s and parent’s scores remained for internalization at discharge, the differences between child and parent scores in respect to externalizing and controlling their anger were no longer statistically significant.

Discussion

The primary purposes of this manuscript were to describe and illustrate an anger management program used with children diagnosed with ADHD and provide preliminary support for its effectiveness. At a time when an estimated 4.4 million American children are
affected with ADHD (Boodman, 2006) and the vast majority of them participate in inclusion programs in both academic and leisure settings, it is imperative that staff know how to assess, plan for and service this population effectively. Children with ADHD attend community recreation programs, summer camps, before and after school daycare, and are found on sports teams and playgrounds nationwide. Many of these programs are lead and supervised by staff that are not versed in anger management training. This article highlights the fact that there is a strong need for this kind of anger management program.

Research has shown that emotional and social adjustments are stronger indicators of future success than academic performance (Hartup & Moore, as cited in Schaefer & DiGeronimo, 2000). Getting along with others and effectively dealing with emotions are critical attributes for positively navigating through life’s challenges.

Although it is clear that medications are effective in treating some children with ADHD, they cannot teach the necessary coping skills that result from inattention or impulsivity. For recreation therapists/specialists who are working with children with ADHD who have problems managing their anger, helping them learn to cope with their anger and frustration is a necessary component of a successful intervention.

Table 1.
Pre-Differences of Children and Their Parents on Subscales of PAES (N=38)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Child M</th>
<th>Child SD</th>
<th>Child SE</th>
<th>Parent M</th>
<th>Parent SD</th>
<th>Parent SE</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger-in</td>
<td>9.03</td>
<td>2.35</td>
<td>.38</td>
<td>6.82</td>
<td>2.05</td>
<td>.33</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Anger-out</td>
<td>9.53</td>
<td>2.26</td>
<td>.37</td>
<td>11.53</td>
<td>2.54</td>
<td>.45</td>
<td>.0003</td>
</tr>
<tr>
<td>Anger-control</td>
<td>10.34</td>
<td>2.08</td>
<td>.34</td>
<td>8.13</td>
<td>2.26</td>
<td>.37</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

Note: In the area of internalization, children saw themselves internalizing anger more often than their parents. In the areas of externalization and control, children saw no change in their behavior but parents reported a reduction in externalization and an increase in anger control. To control for the effect of multiple comparisons, the Holmes Test was calculated at .0083. Additionally, a single-tailed t-test was conducted for the children’s pre/post PAES scores and for the parent’s pre/post PAES scores. Results for the children were: internal (p = .72), external (p = .15), and control (p = .57). Results for the parents were: internal (p = .45), external (p = <.0001), and control (p = <.0001).

Table 2.
Post-Differences of Children and Their Parents on Subscales of PAES (N=38)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Child M</th>
<th>Child SD</th>
<th>Child SE</th>
<th>Parent M</th>
<th>Parent SD</th>
<th>Parent SE</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger-in</td>
<td>9.42</td>
<td>2.65</td>
<td>.43</td>
<td>7.4</td>
<td>1.99</td>
<td>.32</td>
<td>.0002</td>
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<tr>
<td>Anger-out</td>
<td>9.32</td>
<td>2.93</td>
<td>.48</td>
<td>9.79</td>
<td>2.51</td>
<td>.41</td>
<td>.3914</td>
</tr>
<tr>
<td>Anger-control</td>
<td>10.47</td>
<td>2.26</td>
<td>.37</td>
<td>10.0</td>
<td>2.67</td>
<td>.43</td>
<td>.4938</td>
</tr>
</tbody>
</table>

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As with all behavior management programs, consistency is essential, especially for children with ADHD. Learning often becomes more integral and permanent if it is experienced in a multi-modal manner. Providing repetitive practice and feedback in a variety of contexts gives children boundaries and the clear knowledge of what is expected of them. This is the reason for using established programs like the 7-step anger management program presented in this paper.

In order to determine the true effectiveness of any program including anger management, outcome evaluations are necessary. Evaluation serves to illuminate the positive and negative aspects of an intervention that then leads to improving and refining the programs. Recreation therapists have a professional responsibility to conduct program evaluations. In review, the implications for therapeutic recreation professionals are clear. The Therapeutic Recreation Standards of Practice spell out the requirements of assessment, plan, implementation, re-assessment and evaluation.

The following discussion is an attempt to explain the discrepancy in the effectiveness of the program as perceived by the children and their parents. From the empirical data, the recreation therapist’s observations, and other treatment team feedback, the authors found the results both interesting and somewhat perplexing, most particularly with the children’s lack of perceived change in their anger management. The recreation therapist, as well as the teachers and the nurse, reported observing the children having fewer outbursts (externalization) of anger and an increase in emotional control after the intervention and the parents reported that some of the children practiced their anger strategies at home. In clinical interviews with the CTRS prior to the intervention, the children reported having difficulties and “getting into trouble” as a result of their expressions of anger. When asked if they would like to find other ways to express their anger, the vast majority of them answered, “yes.”

To interpret the children’s results, the authors suggest the following three explanations as to why statistical significance was not obtained in the pre and posttest scores of the children:

A) Johari’s Window: To look at oneself objectively and see changes that have been made even when the changes are positive ones is not always easy. Perhaps this phenomenon can best be described by the blind quadrant of Johari’s Window (Luft, 1969) where others can see attributes or behaviors in a person more accurately than a person can see them in oneself. The children may simply not have noticed the positive changes in their behaviors. To further support this concept, another possible explanation for informant discrepancies may be because oftentimes children may not acknowledge or see their behaviors as problematic or in need of help (De Los Reyes & Kazdin, 2005).

B) Instrument Sensitivity: Reliability and the validity of the PAES III may be called into question even though both have been supported in previous research. One possibility is that the constructs that actually provided the empirical changes reported by the parents and observed by the treatment team were in fact not measured correctly or accurately by the PAES.

C) Expression versus Experience: The authors contacted Charles Spielberger, the mentor of the PAES construction, and discussed the results that were obtained (personal communications, 2004; 2005). Spielberger suggested that what may have changed for the children was how they “experienced” their anger and not necessarily how they expressed it. The authors postulate that the children learned and practiced new strategies to deal with the stimuli that in the past evoked an anger response. This practice permitted the anger evoking stimuli to be “experienced” differently and possibly not even be labeled as anger.

A meta-analysis of 119 studies (Achenbach, McConaughy, & Howell, 1987) showed that different informants’ (e.g., parents, children, teachers) ratings of social, emotional, or
behavior problems in children are discrepant (De Los Reyes & Kazdin, 2005). If the perceptions of the parents reflect real changes in the children’s anger management, how does one account for the positive impact? The repetitive actions of having the children recall their strategies out loud daily, and having them write down their selected strategies, as well as having them in conspicuous places around their homes, may have served as reinforcements of the anger management strategies. Additionally, by giving the children a variety of opportunities to practice their strategies, the experiential nature of the learning resulted in greater impact on the children. This is in line with the research conducted in learning theory.

Pharmacological influences cannot be ruled out. Children were placed on their optimal medication prior to discharge. The medication influence, along with the concept of positive reappraisal (i.e., looking for the “silver lining”) at the close of the protocol may have shaped parental responses.

Summary and Recommendations

This article described an anger management program for children diagnosed with ADHD and examined its effectiveness through program evaluation. A review of the literature revealed a lack of published material on anger management interventions in the recreational therapy journals, as well as other psychosocial journals, even though there have been presentations on anger management programs at recreational therapy regional and national conferences. There is a great need for published evaluation studies in recreational therapy. In this study, the children and parents perceived the impact of the intervention differently which certainly suggests the need for a refinement and reevaluation of this and other anger management interventions.

Research questions differ from outcome questions. Programs in recreation therapy are dynamic and evolutionary. Rarely does a therapist run a group the exact same way twice. In clinical research, a protocol is an exact procedure that describes how every aspect of the "trial" is to be implemented. Deviation from this protocol draws into question the "scientific rigor" of the research. While practitioners may be dedicated to the evolution of professional practice through the study of outcomes, they may find the "exacting" constraints of clinical research to be burdensome and impractical. The authors feel that this outcome study is a promising precursor for a more stringently controlled study and that the data provided here offer an excellent baseline data set.

Finally, the PAES was developed as a children’s self-report analysis tool. Even though articles mention teacher and parental use, no PAES results have been reported for parents in previous studies. Therefore the comparison between the child’s perception of his/her behaviors and the parent’s perceptions of their child’s behaviors is called into question. Further examination of the reliability and validity of the PAES as a measure of parents’ perceptions of children’s anger reactions is necessary.

In conclusion, the time to teach anger management is not after emotional escalation but before distorted thinking and negative behavior patterns develop. “The art of soothing ourselves is a fundamental life skill. . . .” (Goleman, 1995, p. 57).

References


training a useful adjunct? Archives General Psychiatry, 42, 953–961.


