Cognitive-Behavioral Intervention for Anger and Aggression
The Coping Power Program

John E. Lochman, Caroline L. Boxmeyer, and Nicole P. Powell
THE UNIVERSITY OF ALABAMA, TUSCALOOSA

Abstract
This chapter provides an overview of anger and aggression problems in children, and a contextual social-cognitive model that encompasses a set of family, peer, school, and child risk factors that are associated with the expression of childhood aggression. Coping Power, a school-based cognitive intervention based on this model, is described, and its major aims are listed and summarized. Efficacy and effectiveness studies of this program in school settings are summarized, indicating the program’s ability to reduce youths’ delinquency, substance use, and aggressive behavior in school settings at the time of follow-ups. Challenges and implementation issues are discussed, including the length of intervention needed to have a notable impact, difficulty engaging parents in school-based interventions, and the need for intensive training of the staff who will implement the program.

Overview
Students who display problems with anger and aggression can present serious problems within the school setting. Safety issues aside, these behaviors can disrupt the learning environment, adversely affect the school climate, and threaten students’ emotional and social well-being. School-based cognitive behavioral interventions, based on contextual social-cognitive models of children’s functioning, can be targeted at children’s aggressive behavior. The Coping Power program has been shown to reduce children’s aggressive and antisocial behaviors through its focus on the active mechanisms that contribute to children’s aggressive behavior.

Importance of Addressing Anger and Aggression in Childhood
Problems with anger and aggression represent two of the most common causes for referral for mental health services or targeted prevention programs in school settings, often because of the implications these problems have for social relationships. In some cases the aggressive and
antisocial behavior leads to social rejection by the people around them, in some cases the social rejection from others triggers escalating anger and aggression, and in many cases the relation between aggression and social rejection is bidirectional. Childhood aggression is relatively stable over time and consistently predicts a variety of negative outcomes including delinquency, substance use, conduct problems, academic difficulties, and poor adjustment (Loeber, 1990). Early hostile behavior has also received considerable attention because youth who engage in the most persistent, severe, and violent antisocial behavior are most likely to initiate their deviant behavior in childhood rather than adolescence.

Anger can be defined as a person’s response to a threat or the perception of a threat against an individual. The types of threats that tend to trigger an anger response are broad in scope and include both physical threats and psychological threats, or threats to a person’s pride or dignity. Anger can be adaptive by energizing an individual and heightening cognitive awareness to take action against a threat or perceived threat. However, anger is an emotion that is often difficult to control due to the intense physiological reactions involved in the fight or flight response that is triggered by anger. Intense, uncontrolled feelings of anger are often associated with aggression.

Aggression is generally defined as a behavioral act that results in harming or hurting others. Because aggressive behavior and treatment of aggression varies greatly according to the intentions and conditions surrounding the aggression, it is typically categorized according to different types. Aggression can be physical or verbal; relational, proactive or reactive; and overt or covert. The literature often differentiates between proactive and reactive aggression because such a framework allows for the explanation and description of aggression (Dodge, Lochman, Harnish, Bates, & Pettit, 1997). Children engaging in proactive aggression typically use aggression to meet a goal. When the aggressive behavior yields the desired reward, the child is more likely to engage in proactive aggression the next time s/he intends to meet a goal. Conversely, reactively aggressive children do not seek to meet goals through their aggressive behavior. Instead, these children react quickly and impulsively to perceived or actual threats and can become intensely irritated.

Conceptual Framework

The contextual social-cognitive model which serves as the basis of our Anger Coping (Lochman, Nelson, & Sims, 1981) and Coping Power (Lochman & Wells, 2002a) programs has been based on empirically identified risk factors which predict children’s antisocial behavior (Matthys & Lochman, 2010). As children develop, they can experience an accumulating and “stacking” of risk factors, increasing the probability of the children eventually displaying serious antisocial behavior. Some of these risk factors can be conceptualized as falling within four categories: family context, school context, peer context, and later emerging child factors involving their social cognitive processes and related emotional regulation abilities.

School Contextual Factors

Schools have their own unique climate, and aspects of the school environment have been shown to either decrease or further exacerbate children’s conduct problems. While effective schools and teachers can exert positive influences on student behavior even when significant risk factors are present (McEvoy & Welker, 2000), there are a number of school- and classroom-level characteristics which have been linked to higher levels of child disruptive and aggressive behavior. Students from higher poverty schools are exposed to greater levels of classroom aggressive behavior (e.g., Thomas, Bierman, & Conduct Problems Prevention Research Group, 2006) and school poverty has been found to have large negative effects on students’ sense of autonomy, democratic
values, concern for others, and sense of efficacy (Battistich, Solomon, Kim, Watson, & Schaps, 1995). Current research is seeking to examine the mechanisms by which school poverty affects levels of aggressive and disruptive student behavior. Impoverished schools may have difficulty providing students with adequate supplies and resources, retaining effective teachers, and providing at-risk students with prevention and early intervention programming.

Thomas and colleagues (2008) examined the hypothesis that high rates of student poverty contribute to under-resourced and non-optimal classroom contexts, in which deficits in teacher management skills and teacher-student relationships impede the effective social control of aggressive student behavior. They found that while child characteristics (e.g., aggressive-disruptive behavior at home, attention problems) accounted for the most variance in school aggression, school factors also accounted for significant variance in school aggression, particularly low-quality classroom contexts. Similar to the pattern of escalating coercive interactions described in families of aggressive children (Dishion & Patterson, 2006), teachers may rely on negative and ineffectual behavior control strategies (threats, displays of anger, reprimands, low use of behavioral contingencies and positive reinforcement) to attempt to control the behavior of aggressive students, which lead to further increases in child oppositionality and school behavior problems (Webster-Stratton, Mihalic, Fagan, Arnold, Taylor, & Tingley, 2001). Indeed, Thomas and colleagues (2008) found that classroom contexts characterized by disapproving teachers and disengaged students undermines the classroom learning environment and thus elicit children’s disruptive behavior.

Schools with higher poverty levels may also have a higher proportion of students who enter school with aggressive and disruptive behavior problems. This presents a greater challenge, as having a higher proportion of students in a classroom with aggressive and disruptive behavior problems has been shown to increase the amount of aggressive behavior emitted by individual students (e.g., Barth, Dunlap, Dane, Lochman, & Wells, 2004). Other aspects of the school climate have also been linked to aggressive and antisocial student behavior. Schools with less effective administrators, lower expectations for student achievement, and climates that fail to foster students’ self-efficacy for learning and attachment to school have higher levels of student aggressive and delinquent behavior (for review, see McEvoy & Welsker, 2000).

**Family Contextual Factors**

There is a wide array of factors in the family that can affect child aggression, ranging from poverty to more general stress and discord within the family. Children’s aggression has been linked to family background factors such as parent criminality, substance use and depression (Barry, Dunlap, Cotton, Lochman, & Wells, 2005), poverty (Barry et al., 2005), marital conflict (Wolfe, Crooks, Lee, McIntyre-Smith, & Jaffe, 2003), stressful life events (Barry et al., 2005), single and teenage parenthood (Cuffe, McKeown, Addy, & Garrison, 2005), and ambivalent, controlling parent-child attachment (Moss et al., 2006). All of these family risk factors can influence child behavior through their effect on parenting processes. For example, high levels of maternal depression predict parents’ use of inconsistent discipline which in turn predicts children’s aggressive behavior (Barry, Dunlap, Lochman, & Wells, 2009). Parenting processes linked to children’s aggression (e.g., Reid, Patterson, & Snyder, 2002) include: (a) nonresponsive parenting at age 1, with pacing and consistency of parent responses not meeting children’s needs; (b) coercive, escalating cycles of harsh parental nattering and child noncompliance, starting in the toddler years, especially for children with difficult temperaments; (c) harsh, inconsistent discipline; (d) unclear directions and commands; (e) lack of warmth and involvement; and (f) lack of parental supervision and monitoring, as children approach adolescence. The relations between parenting factors and childhood aggression are bidirectional,
as child temperament and behavior also affect parenting behaviour (Fite, Colder, Lochman, & Wells, 2006).

**Peer Contextual Factors**

Children with disruptive behaviors are at risk for being rejected by their peers and for having inflated inaccurate perceptions of their levels of peer acceptance (Pardini, Barry, Barth, Lochman, & Wells, 2006). Aggressive children who are also socially rejected exhibit more severe antisocial behavior than children who are either aggressive only or rejected only (Miller-Johnson, Coie, Maumary-Gremaud, Bierman, & Conduct Problems Prevention Research Group, 2002). The match between the race of students and their peers in a classroom influences the degree of social rejection that students experience (Jackson, Barth, Powell, & Lochman, 2006), and race and gender appear to moderate the relation between peer rejection and negative adolescent outcomes. For example, Lochman and Wayland (1994) found that peer rejection ratings of African American children within a mixed-race classroom did not predict subsequent externalizing problems in adolescence, whereas peer rejection ratings of Caucasian children were associated with future disruptive behaviors.

As children with conduct problems enter adolescence, they tend to associate with deviant peers (Warr, 2002). Adolescents who have been continually rejected from more prosocial peer groups because they lack appropriate social skills turn to antisocial cliques for social support (Miller-Johnson et al., 1999). The tendency for aggressive children to associate with one another increases the probability that they will escalate the seriousness of their antisocial behavior (e.g., Fite, Colder, Lochman, & Wells, 2007).

**Social Cognition**

Based on children’s temperament and biological dispositions, and on children’s contextual experiences from their family, peers and community, they begin to form stable patterns of processing social information and of regulating their emotions. The contextual social-cognitive model (Lochman & Wells, 2002a) stresses the reciprocal interactive relationships between children’s initial cognitive appraisal of problem situations, their efforts to think about solutions to the perceived problems, children’s physiological arousal, and their behavioral response. The level of physiological arousal will depend on the individual’s biological predisposition to become aroused, and will vary depending on interpretation of the event (Williams, Lochman, Phillips, & Barry, 2003). The level of arousal will further influence the social problem solving, operating either to intensify the fight or flight response, or interfere with solution generation. Because of the ongoing and reciprocal nature of interactions, it may be difficult for children to extricate themselves from aggressive behavior patterns.

Aggressive children experience cognitive distortions in the appraisal phases of social-cognitive processing because of problems encoding incoming social information, partly due to neurocognitive difficulties in their executive functions (Ellis, Weiss, & Lochman, 2009), and in accurately interpreting social events and others’ intentions. In the appraisal phases of information processing, aggressive children have been found to recall fewer relevant nonhostile cues about events (Lochman & Dodge, 1994), and to misperceive the levels of aggressive behavior that they and peers emit in dyadic interactions (Lochman & Dodge, 1998). Reactively aggressive children have a hostile attributional bias, as they excessively infer that others are acting toward them in a provocative and hostile manner (Dodge et al., 1997; Lochman & Dodge, 1994).

Aggressive children also have cognitive deficiencies at the problem solution phases of social-cognitive processing. They can have dominance and revenge oriented social goals (Lochman,
Wayland, & White, 1993) which guide the maladaptive action-oriented and nonverbal solutions they generate for perceived problems (Dunn, Lochman, & Colder, 1997; Lochman & Dodge, 1994). Aggressive children frequently have low verbal skills, and this contributes to their difficulty accessing and using competent verbal assertion and compromise solutions. At the next processing step they identify consequences for each of the solutions generated and make a decision how to respond to the situation. Aggressive children evaluate aggressive behavior in a positive way and they expect that aggressive behavior will lead to positive outcomes for them (Lochman & Dodge, 1994). Deficient beliefs at this stage of information processing are especially characteristic for children with proactive aggressive behavior patterns (Dodge et al., 1997) and for youth who have callous-unemotional traits consistent with early phases of psychopathy (Par- dini, Lochman, & Frick, 2003). Children’s schematic beliefs and expectations affect each of these information processing steps (Zelli, Dodge, Lochman, Laird, & Conduct Problems Prevention Research Group, 1999).

Description of the Coping Power Program

To address parenting, school, and child social-cognitive risk factors, the Coping Power Program (Lochman, Wells, & Lenhart, 2008) was developed for implementation with students in the fourth through sixth grades. Originally designed as a prevention program for students displaying mild to moderate levels of social, verbal, and physical aggression, Coping Power can also be used as an intervention for youth displaying clinical levels of disruptive behavior problems. Coping Power comprises two components, a 34-session child program and a 16-session parenting curriculum. Though delivered separately to children and parents, the programs are designed to run concurrently.

Child group sessions are typically run in small groups of five to seven students by a school psychologist, counselor, or social worker. Ideally, a teacher or support staff member co-leads and assists with behavior management. Meetings are held weekly, and are 45 minutes to 1 hour in length. Leaders also meet with students individually once each month, to build rapport, assess comprehension, and provide individualized instruction as needed. Parent meetings are also delivered in a group format and can include up to 10 individual parents or couples. Parent component sessions are typically held on a biweekly basis with meetings lasting approximately 90 minutes.

Coping Power Child Component

Program Structure

Delivery of the Coping Power Child Component in a small group format offers several clinical advantages. For example, students have the opportunity to role-play new skills in a realistic environment of their peers, and leaders can observe and assess students’ interpersonal interactions with peers. However, the group format can also introduce opportunities for negative group processes in which students’ disruptive behaviors can be reinforced, can diminish others’ ability to benefit from session content, or can even encourage negative behaviors in others. To address the possibility of dampened or negative effects, the Coping Power Program is highly structured, leaving little “down time” for problematic interchanges. In addition, the program includes a behavior management system in which students receive verbal praise and points for appropriate behaviors; students have the opportunity to spend points on tangible items each week, or to save their points for larger, more desirable items. Inappropriate behaviors are managed with selective ignoring and targeted praise of appropriate behaviors when possible. When
disruptive behaviors persist, students receive warnings, fail to earn points, and may be separated from the group.

To promote generalization of skills to the classroom setting, students receive a weekly goal sheet at each Coping Power meeting. The goal sheet defines, in positively stated, observable terms, a goal for the student to work on during the week (e.g., “I will walk away or ask the teacher for help when I have trouble getting along with a classmate”). On a daily basis, the student’s teacher reviews the student’s progress toward the goal and indicates whether or not the goal was met for that day. Leaders review completed goal sheets at the beginning of each Coping Power meeting, allowing them to assess the students’ progress and to revise the goals to be more or less challenging as needed.

**Core Program Content**

As indicated in Table 43.1, initial sessions devoted to emotion regulation aim to normalize a broad range of emotional experience, to help students develop an adequate vocabulary for labeling and discussing their feelings, and to assist students in recognizing their personal anger cues and anger triggers. A thermometer analogy is used consistently in these sessions to help students recognize variations in the intensity of their emotional experience. Having provided a background in emotional awareness, the curriculum next introduces specific strategies for coping with anger and frustration, including distraction, relaxation, and coping self-statements. Session activities are designed to progress from easily manageable, impersonal exercises (e.g., having students use puppets to receive taunts and demonstrate self-control strategies) to realistic role-plays in which students are teased by other group members about moderately sensitive topics (e.g., personal appearance, athletic abilities). The objectives are best achieved when students experience a moderate degree of angry arousal during these activities, so that they can experience success in managing strong feelings through the use of effective coping strategies.

Social problem solving is another key feature of the Coping Power Child Component, with sessions designed to address the distortions and deficiencies in social-cognitive processes commonly demonstrated by at-risk children. The program seeks to improve students’ perspective-taking abilities as an important first step in developing collaborative social-problem solving skills. Students are taught to use a structured problem-solving model involving three steps: Problem Identification, brainstorming potential Choices, and identifying Consequences for the various choices. The problem-solving model is referred to as “PICC” and students practice applying the model to a variety of social situations through discussions, role-plays, games, and homework assignments. Students also solidify their understanding of the PICC model and gain additional practice in its use by creating a videotaped “infomercial” in which the PICC model is described and demonstrated.

**Coping Power Parent Component**

The Coping Power Parent Component (Wells, Lochman, & Lenhart, 2008) is designed to help parents look for opportunities to coach, encourage, and reinforce their children’s use of their new skills. For example, parents are taught to use the PICC model and are encouraged to apply it to situations that may arise in the home, such as conflicts between siblings.

Content of the parent curriculum includes promoting the parent-child relationship, effective behavior management strategies, family communication, parental involvement in academics, and strategies for managing parents’ own stress. Table 43.2 provides information about specific topic areas and objectives for each session. The program focuses on encouraging and reinforc-
Coping Power Parent meetings are designed to be interactive in nature, with an emphasis on parent sharing and discussion, as well as frequent role-plays. Each session also includes a homework assignment for parents to practice techniques and skills between meetings.

### Table 43.1 Overview of the Session Sequence and Objectives of the Coping Power Child Component

<table>
<thead>
<tr>
<th>Session</th>
<th>Content and Main Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduce program purpose and structure; build rapport; foster group cohesion</td>
</tr>
<tr>
<td>2 &amp; 3</td>
<td>Introduce concept of goal-setting; assist students in identifying long-term and short-term personal goals; discuss barriers to achieving goals</td>
</tr>
<tr>
<td>4</td>
<td>Discuss importance of organization and effective study habits for academic success</td>
</tr>
<tr>
<td>5 &amp; 6</td>
<td>Identify behavioral, physiological, and cognitive cues for emotions, especially anger</td>
</tr>
<tr>
<td>7</td>
<td>Practice use of distraction to cope with anger</td>
</tr>
<tr>
<td>8 – 10</td>
<td>Practice use of coping self-statements to manage anger</td>
</tr>
<tr>
<td>11</td>
<td>Practice using relaxation to manage anger</td>
</tr>
<tr>
<td>12 – 14</td>
<td>Introduce concept of perspective taking; encourage students to consider non-hostile motivations for others’ actions</td>
</tr>
<tr>
<td>15</td>
<td>Introduce PICC problem-solving model; discuss first step: Problem Identification</td>
</tr>
<tr>
<td>16</td>
<td>Introduce Choices step of PICC model; practice identifying potential solutions to social problems</td>
</tr>
<tr>
<td>17 – 18</td>
<td>Introduce Consequences step of PICC model; practice identifying consequences to various solutions; practice evaluation of consequences</td>
</tr>
<tr>
<td>19</td>
<td>Identify obstacles to problem-solving and practice persistence in overcoming them</td>
</tr>
<tr>
<td>20</td>
<td>Begin planning for PICC video-making activity</td>
</tr>
<tr>
<td>21</td>
<td>Videotape students describing PICC model and role-playing problem situation, choices, and consequences</td>
</tr>
<tr>
<td>22</td>
<td>Complete videotape production; review and discuss video; review content</td>
</tr>
<tr>
<td>23</td>
<td>Review group purpose and structure</td>
</tr>
<tr>
<td>24</td>
<td>Review organization and study skills</td>
</tr>
<tr>
<td>25</td>
<td>Use PICC model to practice solving social problems involving teachers</td>
</tr>
<tr>
<td>26</td>
<td>Practice social skills for joining positive peer groups and making friends</td>
</tr>
<tr>
<td>27</td>
<td>Use PICC model to practice solving social problems related to group entry and negotiation with peers</td>
</tr>
<tr>
<td>28</td>
<td>Use PICC model to practice solving social problems involving siblings</td>
</tr>
<tr>
<td>29</td>
<td>Identify skills to resist peer pressure</td>
</tr>
<tr>
<td>30</td>
<td>Practice skills to resist peer pressure using a variety of role-played situations</td>
</tr>
<tr>
<td>31</td>
<td>Use PICC model to practice solving social problems that may occur in students’ neighborhoods; assist students in identifying their group memberships and status within social groups</td>
</tr>
<tr>
<td>32</td>
<td>Create a poster illustrating skills to resist peer pressure</td>
</tr>
<tr>
<td>33</td>
<td>Discuss ways to affiliate with positive peer groups</td>
</tr>
<tr>
<td>34</td>
<td>Review and summarize key concepts from the program; help students experience a sense of closure as the program ends</td>
</tr>
</tbody>
</table>
Relevant Research and Evidence of Effectiveness

In a first trial of Coping Power, 183 boys (61% African American and 39% Caucasian) who had high rates of teacher-rated aggression in fourth or fifth grade were randomly assigned to either a school-based Coping Power child component, to a combination of Coping Power child and parent components, or to an untreated control condition (Lochman & Wells, 2004). Intervention took place over two academic years. Coping Power produced lower rates of covert delinquent behavior (effect size of .42) and parent-rated substance use (effect size of .64) at a one-year follow-up than did the control condition, and these intervention effects were most apparent for the combined child and parent Coping Power Program. Boys also displayed teacher-rated behavioral improvements in school during the follow-up year, and these effects were evident in both intervention conditions (effect size of .42 for child component and .34 for combined program) and appeared to be primarily influenced by the Coping Power child component. Normative comparison analyses with a non-risk sample of 63 boys from the same schools indicate that the intervention moved at-risk boys into normative ranges for substance use, delinquency and school behavior, in contrast to at-risk control boys who significantly differed from the normative group on the latter two outcomes.

Path analyses indicate that the intervention effects were at least partly mediated by changes in boys’ social-cognitive processes, schemas, and parenting processes (Lochman & Wells, 2002a). Changes in social-cognitive appraisal processes, involving boys’ hostile attributions and resulting anger, and decision-making processes, involving reductions in the boys’ expectations that aggressive behavior would lead to good outcomes for them, reduced the risk for antisocial behav-

Table 43.2 Overview of the Session Sequence and Objectives of the Coping Power Parent Component

<table>
<thead>
<tr>
<th>Session</th>
<th>Content and Main Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Provide overview of program structure and content; introduce parent academic support in the home</td>
</tr>
<tr>
<td>2</td>
<td>Discuss homework monitoring</td>
</tr>
<tr>
<td>3</td>
<td>Introduce topic of stress management for parents; discuss effects of stress; practice relaxation for stress management</td>
</tr>
<tr>
<td>4</td>
<td>Introduce time management strategies for stress management; introduce and practice using cognitive model for stress management</td>
</tr>
<tr>
<td>5</td>
<td>Present social learning model to understand children’s behavior, including the role of antecedents and consequences on shaping behavior; discuss and model use of praise</td>
</tr>
<tr>
<td>6</td>
<td>Discuss and role-play ignoring to manage minor disruptive behaviors</td>
</tr>
<tr>
<td>7</td>
<td>Present features of effective instructions</td>
</tr>
<tr>
<td>8</td>
<td>Discuss the importance of rules and expectations in the home</td>
</tr>
<tr>
<td>9</td>
<td>Discuss discipline and punishment; present steps for using time-out effectively</td>
</tr>
<tr>
<td>10</td>
<td>Discuss and role play use of privilege removal and work chores as consequences for inappropriate behaviors and rule violations</td>
</tr>
<tr>
<td>11</td>
<td>Help parents prepare and plan for summer breaks</td>
</tr>
<tr>
<td>12</td>
<td>Review information on academic support in the home</td>
</tr>
<tr>
<td>13</td>
<td>Identify activities that promote family cohesiveness</td>
</tr>
<tr>
<td>14</td>
<td>Discuss application of PICC to problems that may occur within the home</td>
</tr>
<tr>
<td>15</td>
<td>Assist parents in setting up structures to facilitate family communication</td>
</tr>
<tr>
<td>16</td>
<td>Review and summarize key concepts from the program; identify community resources for families</td>
</tr>
</tbody>
</table>
Cognitive-Behavioral Intervention for Anger and Aggression

ior. Similarly, changes in boys’ schemas involving their beliefs about their degree of internal control over successful outcomes and the complexity of their internal representations of others, and changes in their perceptions of the consistency of their parents’ discipline efforts were found to mediate reductions in delinquency, substance use, and school behavioral problems.

Another study examined whether the effects of the Coping Power Program, offered as an indicated prevention intervention for high-risk aggressive children, could be enhanced by adding a universal prevention component (Lochman & Wells, 2002b). The universal intervention was randomly offered to half of the fifth-grade teachers and consisted of in-service training for teachers and large-scale parent meetings for all parents of children in universal intervention classrooms. The teacher intervention component consisted of five 2-hour meetings with discussion topics such as fostering parent school involvement, enhancing children’s organization and study skills, increasing homework completion, and enhancing children’s self-regulation and social competency. The parent intervention consisted of four meetings and included discussion of topics similar to those in the teacher intervention, as well as helping parents prepare their child for the middle-school transition and describing the academic, social, and behavioral tasks that children will have to master during this transition. The sample consisted of 245 male (66%) and female (34%) aggressive fourth grade students (78% African American and 20% Caucasian) who were randomly assigned to one of four conditions: Indicated Intervention + Universal Intervention (II+UI), Indicated Intervention + Universal Control (II+UC), Indicated Control + Universal Intervention (IC+UI), and Indicated Control + Universal Control (IC+UC). Intervention began in the fall of the fifth-grade year and continued midway through the sixth-grade year. Analyses of post-intervention effects comparing intervention to control conditions (Lochman & Wells, 2002b), indicate that the combined Coping Power Program plus the universal intervention produced lower teacher-rated aggression (effect size of .24), higher perceived social competence (effect size of .17), and lower self-reported substance use (effect size of .28), indicating the value of nesting the Coping Power Program within a universal prevention program. The Coping Power intervention by itself produced reduced ratings of teacher- and parent-rated proactive aggression (effect sizes of .41 and .22, respectively), higher teacher-rated behavioral improvement (effect size of .17), and better teacher-rated social skills (effect size of .35). At a one-year follow-up, all intervention conditions produced reductions in substance use (effect sizes between .42 and 1.0), delinquency (effect sizes between .21 and .35), and school aggression (effect sizes between .15 and .58; Lochman & Wells, 2003).

Challenges and Limitations

Duration of the Intervention

The full Coping Power program includes 34 child and 16 parent sessions and spans two school years. It can be difficult to implement an intervention of this length in school settings due to personnel costs, multiple demands on school personnel time, and parents’ and teachers’ concerns about students missing classroom instruction. Despite these concerns, a range of studies indicate that longer periods of intervention may be necessary in order to produce long-lasting reductions in aggressive and disruptive classroom behavior. Coping Power grew out of earlier intervention research on the Anger Coping Program, which is a briefer, child-only version of the intervention curriculum (Larson & Lochman, 2002). In a series of studies, the Anger Coping Program was found to have immediate effects in reducing boys’ aggressive behavior (Lochman, Burch, Curry, & Lampron, 1984) and longer-term effects on increasing boys’ self-esteem and social problem-solving and preventing adolescent substance use (Lochman, 1992). However, long-term effects on aggressive and off-task behavior were maintained only in boys who received a second year of booster sessions, suggesting the need for longer periods of intervention. Going forward, it will
be important to identify the optimal length of intervention necessary to produce lasting reductions in aggressive behavior. Two recent randomized controlled trials of an abbreviated version of Coping Power have yielded significant teacher-rated behavioral improvement at the end of intervention, including one trial which included a 24 session child component and 10 session parent component (Lochman, Boxmeyer, Powell, Roth, & Windle, 2006) and another trial by an independent research team which included only the 24 session child component (Peterson, Hamilton, & Russell, 2009). Data on long-term outcome effects for these samples is still needed.

Involving Parents in Intervention

Outcome research on both the Anger Coping and Coping Power programs lends further support to the wide body of literature indicating the important role of parents and families in the prevention and treatment of aggressive and disruptive behavior in children. In a three-year follow-up study of Anger Coping, long-lasting improvements in children's classroom behavior were only observed in children who participated in a second year of booster intervention, which was also the only treatment arm that included parent training sessions (Lochman, 1992). In Lochman and Wells’ (2004) study, Coping Power-produced reductions in covert delinquent behavior (effect size of .42) and substance abuse (effect size of .64) at one-year follow-up were strongest for the participants in the combined child and parent Coping Power intervention. Similarly, Lochman and colleagues (2006) found that reduction of children’s teacher-rated aggressive behavior only reached statistical significance for children whose caregivers attended at least one of the Coping Power parent sessions offered.

Despite the important role of parents in preventing and treating children’s aggressive behavior, many schools view intensive work with parents as beyond their scope of practice. Parents may be called in for conferences to discuss specific school behavioral incidents or to discuss a child’s individualized education plan; however proactive, ongoing parent skills-training and support services are less frequently available through school-based services. When such services are available, engaging the parents of high-risk children in these services can be a significant challenge. Adaptive interventions that incorporate family engagement techniques and allow for individualization of services, and stronger links between school and community-based services may help to address these challenges in the future.

Dissemination and Implementation in School Settings

An important concern in intervention research is whether the program will be adopted and used effectively by existing school personnel. A controlled dissemination study of the Coping Power Program was recently conducted in 57 schools in five school systems in Alabama to examine this question. Existing school mental health personnel (primarily school guidance counselors) were randomly assigned to be trained to implement Coping Power with high-risk aggressive fourth- and fifth-grade students or to a care-as-usual control condition (N = 531). The intensity of training provided to counselors was found to have a notable impact on child outcomes. Compared to the control condition, significant reductions in child externalizing behavior (from teacher, parent, and child ratings) and improvements in social and academic behaviors only occurred when a more intensive form of training was provided (i.e., when counselors received immediate supervisory feedback based on recorded sessions in addition to attending the standard workshop training and monthly meetings; Lochman, Boxmeyer, et al., 2009). Effect sizes ranged from 0.23 to 0.41 in the intensive training condition compared to effect sizes of .04 to 0.24 in the basic training condition. School- and counselor-level variables were associated with quality of program implementation, with agreeable and conscientious counselors demonstrating best
program implementation. Counselors who were high on cynicism and who were in schools with low levels of staff autonomy and high levels of managerial control had particularly poor quality of implementation and child and parent engagement (Lochman, Powell, et al., 2009).

These findings suggest that it is important for school personnel to have a high level of training in cognitive behavioral intervention for aggressive youth in order to produce significant behavior change. An important future direction is to ensure that quality training in common elements of evidence-based intervention for aggressive children and their parents is provided in graduate training programs rather than requiring professionals to obtain additional training once they are already practicing in the field.

Implications for Practice

- Key elements of most cognitive behavioral programs, including Coping Power, include a focus on children’s behavioral goals, emotional awareness and self-regulation, perspective-taking and attribution retraining, social problem-solving skill training, and avoidance of deviant peer processes;
- Social problem-solving is a key aspect of most evidence-based cognitive-behavioral programs for conduct problem children, and is typically delivered through discussion, role-play, homework exercises, and creation of therapeutic products such as videos;
- As evident in Coping Power research, cognitive behavioral intervention with aggressive children has most impact on children’s delinquent and substance using behavior when it is accompanied by behavioral parent training;
- School-based targeted interventions for children’s aggressive behavior, such as the Coping Power Program, must include intensive training to be effective;
- Ensuring that graduate training programs for school mental health professionals offer training in evidence-based interventions for children with anger and aggression problems will help to ensure that these interventions are implemented widely as standard practice, rather than relying on individual schools or districts to adopt such interventions which can require costly training and technical assistance.

References


John E. Lochman, Caroline L. Boxmeyer, and Nicole P. Powell


Cognitive-Behavioral Intervention for Anger and Aggression


