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# Tailoring of evidence-based group intervention with children with disruptive behavior: Implications for therapists and researchers

John E. Lochman<sup>1</sup>

<sup>1</sup> University of Alabama, Tuscaloosa, Alabama, EE. UU.

## Correspondence:

John E. Lochman  
University of Alabama, Tuscaloosa, Alabama, EE. UU.  
276A Gordon Palmer  
Phone: (205) 246-1236  
Email: [jlochman@ua.edu](mailto:jlochman@ua.edu)

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The evidence-base for cognitive-behavioral child interventions has continued to advance in the past several decades across many areas of psychopathology, including disruptive behavior problems. We know quite a bit about what works. However, despite earlier research efforts (e.g., Copeland & Hammel, 1981; Lochman, Lampron, Burch, & Curry, 1985; Conduct Problems Prevention Research Group, 2002), we are still in early stages of understanding “what works for whom.” Efforts to explore moderators of established interventions, rather than merely efficacy (La Greca, Silverman, & Lochman, 2009), can progressively help to identify how we can tailor interventions for different children, and tailor training for therapists. One example occurs in research efforts to clarify whether group-based interventions might have iatrogenic effects with some children with disruptive behavior problems.

Reviews of group-based intervention research have found group treatment to be generally effective in reducing youths’ conduct problems and substance use (e.g., Vaughn & Howard, 2004; Weiss et al., 2005). The Coping Power program is one such group-based program that has produced reductions in disruptive behavior problems in randomized control studies at post-intervention and through one-to-four year followups after intervention (Cabiya et al., 2008; Lochman et al., 2014; Lochman & Wells, 2003; 2004; Lochman, Wells, Qu, & Chen, 2013; Muratori et al., 2017a; Mushtaq, Lochman, Tariq, & Sabih, 2017; Zonneville-Bender, Matthys, van de Wiel, & Lochman, 2007). However, it is important to consider possible iatrogenic effects when providing an intervention targeting disruptive behavior in a group delivery format because of concerns about deviancy training (peer reinforcement of children’s deviant talk and behavior; Dishion, Poulin, & Burraston, 2001). A warning about potential iatrogenic effects was clearly evident in a study by Dishion and Andrews (1995) in which children in a cognitive-behavioral intervention actually had more problem behaviors than did untreated control children at follow-ups one and three years after intervention (Poulin, Dishion, & Burraston, 2001).

Because the Coping Power program has typically been delivered in small groups, a large-scale study was conducted to investigate how children fare if they received Coping Power in a group versus individual format (Lochman et al., 2015a). Results indicated both intervention delivery methods led to similar significant reductions in parent-rated externalizing problems through a one-year follow-up period. However, although teacher-rated externalizing problems also declined significantly for both intervention conditions, the reductions were significantly greater for children receiving Coping Power in an individual format. This main effect was moderated by children’s baseline levels of inhibitory control. Children with fewer problems with inhibitory control responded in similar positive ways to either the group or individual format, but children with weak inhibitory control benefited more from being seen in one-to-one sessions. Similar findings were evident in a longer-term follow-up through eleventh grade, with youth with weakest inhibitory control prior to intervention having slower increases in substance use if they were seen individually rather than in groups (Lochman et al., 2021). However, youth with stronger inhibitory

control had better substance use outcomes if they were randomized to the group format, indicating the strong benefits of groups as well.

Other studies with this sample found that children receiving the group intervention who were less prone to social reward (A/A genotype of oxytocin receptor gene SNP rs2268493; Glenn et al., 2018), and had better emotional regulation (respiratory sinus arrhythmia; Glenn et al., 2019) had better teacher-rated outcomes than their peers. At a later four-year follow-up (Lochman et al., 2019), results confirm and extend the pattern of prior findings, indicating that several of these classes of characteristics (oxytocin receptor genotype; skin conductance [SCL] reactivity) continue to predict outcomes years later when the youth have moved into high school. Aggressive children who have very strong social orientations, such as children with the G/G genotype, may have been more over-involved with peers in the group condition, and thus less able to deeply incorporate and internalize the social-cognitive regulation skills being discussed and practiced. Similarly, when seen individually, aggressive children who have hypersensitive stress responses, evident in their autonomic nervous system over-reactivity, may be better able to understand and practice the intervention's methods for emotional regulation in the safe context of their therapeutic relationship with their therapist in comparison to similar children assigned to group intervention.

Group therapists' clinical skills also emerged as important predictors of outcomes in this long-term follow-up study (Lochman et al., 2019). The clinical skills construct included ratings for not appearing frustrated, angry or irritable, having a warm and positive tone of voice with students, acting in a mature and professional way (e.g., appropriate level of self-disclosure), and not being overly rigid with the implementation of the manualized intervention activities. Leaders with high levels of clinical skills had children who had the most reduced slopes of teacher-rated externalizing problems over time. Clinical skills were perhaps surprisingly more important in predicting outcome than were group leaders' behavioral management and "teaching" styles (Lochman, Dishion, Boxmeyer, Powell, & Qu, 2017).

There are at least three ways in which clinical skills, as measured here, can influence children's outcomes (Lochman et al., 2017). First, group therapists who handle difficult interpersonal provocations from their child clients by exerting inhibitory control over their own expression of their own frustration and by effectively regulating their arousal are modeling key processes which can be instrumental for children learning to improve their own emotional regulation over time (Chapman, Baker, Porter, Thayer, & Burlingame, 2010; Stewart, Christner, & Freeman, 2007). Second, group leaders who respond more frequently in warm ways to the children in their groups are likely providing more social reinforcement for positive child behaviors within the sessions (Follette, Naugle, & Callaghan, 1996), and facil-

itating sustained generalized reductions in problem behaviors outside of the group sessions. Third, in a related way, group leaders who respond to children with more warmth are likely to develop stronger therapeutic alliances with the children, and the children can become more engaged with the intervention. Children who have become well-engaged in the Coping Power intervention by the middle sessions of the program have been found to have greater reductions in externalizing behavior by post-intervention (Lindsey et al., 2019). Children who are more engaged in the intervention may learn the social-emotional skills more deeply.

Several key implications emerge from this set of studies. First, carefully-structured evidence-based group interventions can be acceptable, and in some cases even preferable, for most children with histories of disruptive behaviors. Second, a small subset of children with disruptive behaviors could make more enduring gains from being seen in individual intervention rather than in groups, and these children can be characterized as having unusually poor inhibitory control, excessive desire for social bonding with peers, and extreme emotional dysregulation. Third, group therapists should receive intensive training for leading groups. In addition to providing group therapists with precise skills in how to monitor and provide consequences for children's behavior in the groups, these findings demonstrate that therapists' clinical skills, as rated during group sessions, predict children's externalizing behaviors during the years after the program has been completed. The simple story is that group therapists who are positive and professional in their interactions with their group children, and who are less angry-irritable with them, have children who exhibit greater reductions in externalizing behavior problems over time. In a sense, the clinicians' behavior may provide a protective effect for children who are in a group intervention that carries certain risk for deviant peer interactions and escalating group emotional and behavioral contagion.

Therapists' own emotional regulation, their use of social reinforcement, and their ability to stimulate child engagement in sessions can all contribute to optimal outcomes from group intervention (Lochman et al., 2017). In a related way, in a separate study, we have found that therapists who have more agreeable personality traits can implement Coping Power with greater quality of implementation and tend to be more likely to sustain their use of the program over time (Lochman et al., 2009; 2015b). Therapists with an agreeable personality trait may find it easier to respond in relatively automatic, flexible, self-regulated ways, and to thus implement a group cognitive-behavioral intervention in qualitatively better ways (Lochman et al., 2009). In another closely related study, Muratori et al. (2017b) found that therapists who had an anxious, preoccupied attachment style had child clients, who had received Coping Power group intervention in community hospitals, who increased in their aggression over time, in contrast to children who

had received Coping Power from therapists who had a secure attachment style. A therapist with an anxious attachment style that involves excessive preoccupation with relationships may tend to intervene anxiously with a difficult child in their group, modeling poor regulation of their own arousal.

We anticipate that the behavioral expression of these capacities can, and should, be addressed and included in intensive training for group therapists. Some group leaders would likely have to learn to use more deliberate strategies to monitor their own arousal in sessions and to purposefully use cognitive and physiological regulation strategies. Thus, the training of group leaders should emphasize not only skill-training in a traditional sense, but also focus on how group leaders can practice emotional regulation themselves while engaged in group work that can be inherently stressful and frustrating at times. It is clinically and ethically imperative for group therapists to obtain rigorous, evidence-based training, and performance feedback.

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