

# Behavioral and Psychosocial Treatment Strategies

by Sam Goldstein, PhD

**MORE THAN A HUNDRED SCIENTIFIC STUDIES** demonstrate that cognitive and behavioral training programs improve child compliance, reduce disruptive behaviors, and improve interactions with parents. Among these studies, a number have demonstrated the effectiveness of these non-medication interventions for attention-deficit/hyperactivity disorder.

Yet the debate continues concerning the relative effectiveness of non-medicine versus medicine treatments for AD/HD. This controversy over treatment for AD/HD is yet another reflection of the nature/nurture debate. The strong biological and hereditary-driven basis for AD/HD have at times been misinterpreted to mean that non-medicine treatments are ineffective for this condition, despite increasing evidence that for most children with AD/HD, a combination of psychosocial, behavioral, and medical interventions best serves their needs.

In this column, I will summarize a number of studies completed over the past ten years demonstrating the effectiveness of behavioral and cognitive programs in reducing symptom severity and impairment in youth with AD/HD.

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► **Antschel, K.M., & Remer, R. (2003).** Social skills training in children with AD/HD: A randomized-controlled clinical trial. *Journal of Clinical Child and Adolescent Psychology, 32*, 153-165.

These authors evaluated the efficacy of social skills training to improve social behavior in children with the inattentive and combined subtypes of AD/HD. Children were randomly assigned by subtype to eight weeks of social skills training or the no-intervention control condition. Social skills training led to greater improvements in both parent- and child-perceived assertion skills in the children with AD/HD, yet did not affect the other domains of social competence. Children with comorbid oppositional defiant disorder did not benefit as much from the intervention.

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► **Barbarese, W.J. & Olsen, R.D. (1998).** An AD/HD educational intervention for elementary school teachers: A pilot study. *Developmental and Behavioral Pediatrics, 19*, 94-100.

These pediatricians assessed the effects of in-service training on the knowledge and stress of elementary school teachers

related to AD/HD. Pre- and post-intervention questionnaires assessed teachers' training and knowledge concerning AD/HD, teacher stress and teacher-rated student behavior. The intervention was an AD/HD curriculum developed by CHADD. Teacher stress correlated with AD/HD behavior in male students and decreased post-intervention. One of the interesting findings was a dramatic decrease in teacher misperceptions, including beliefs that AD/HD is caused by poor parenting and food additives, and that medication intervention should be used only as a last resort.

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► **Barkley, R.A., Edwards, G., Laner, M., Fletcher, K., & Matevia, L. (2001).** The efficacy of problem-solving training alone, behavior management training alone and their combination for parent-adolescent conflict in teenagers with AD/HD and ODD. *Journal of Consulting and Clinical Psychology, 69*, 926-941.

These authors compared two behavioral family therapies for their impact on parent-adolescent conflict. Families were randomly assigned to problem-solving communication skill training or behavior management training followed by problem-solving communication training. Both treatments demonstrated significant improvements in mother, father, and teen ratings of parent-teen conflicts at the midpoint, but did not differ from each other. By post-treatment, both treatments produced significant improvement on self-reported ratings and in the mother's use of positive and negative behavior in direct observations. The treatments, however, did not differ from each other. The authors suggest that these results provide a "mixed picture" of the efficacy of behavioral family therapies for management of parent-teen conflict. Group level change and normalization rates supported treatment efficacy, while indices of reliable change appeared less robust.



counted for the majority of improvement. The behavioral interventions appeared to have benefits for related problems many children with AD/HD experience, including negative behavior such as aggression and poor socialization. The authors concluded that the incorporation of other intervention components beyond methylphenidate should be considered, and may be warranted to enhance clinical efficacy in the treatment of AD/HD. The concern in this study, however, is the extensive and expensive nature of the behavioral intervention. This was a day, partial-hospitalization program, one that most children with AD/HD do not need and cannot access.

► **Koko, D.J., Buckstein, O.G. & Baron, J. (1999).** Methylphenidate and behavior modification in children with AD/HD and comorbid ODD or CD: Main and incremental effects across settings. *Journal of the American Academy of Child and Adolescent Psychiatry, 38, 578-586.*

The combination of methylphenidate and behavior modification has been advocated to enhance clinical outcomes for children with AD/HD and comorbid disruptive disorders. These authors attempted to evaluate the separate and incremental effects of these modalities on rating-scale and observational measures in multiple settings. Sixteen children with AD/HD and comorbid disruptive disorders participated in a randomized, placebo controlled study examining the separate and incremental effects of two doses of methylphenidate and a day treatment behavior modification program. Although the methylphenidate and behavior modification treatments had certain unique effects, the medication by far ac-

► **Majewicz-Hefley, A., & Carlson, J.S. (2007).** A meta-analysis of combined treatments for children diagnosed with AD/HD. *Journal of Attention Disorders, 10, 239-250.*

A statistical procedure, meta-analysis, was used to review all of the relevant studies combining psychosocial and medication treatments for children with AD/HD. The authors identified eight combined treatment studies that met minimal criteria for good science. The results of the meta-analysis demonstrated that combined treatments were highly effective for both the core and related symptoms and impairments of AD/HD. The authors suggest that

## What We Have Learned

- › Medication, behavioral, and cognitive interventions to reduce symptoms and impairments of AD/HD are each effective when applied in a consistent way.
- › The combination of medication, cognitive, and behavioral treatments is more beneficial than any of these interventions alone.
- › For children with co-occurring disruptive behavior problems in addition to AD/HD, behavioral and cognitive interventions are particularly important.
- › Directed, short-term social skills training is effective in improving the social relations of children with AD/HD.
- › Social skills training in children with AD/HD and co-occurring disruptive problems may not be as effective as in children with AD/HD alone.
- › A number of different family therapy models have been demonstrated to be effective in improving family functioning and relationships for teenagers with AD/HD. However, continued support and follow-up may be needed to maintain improvements.
- › Cognitive-behavioral self-control training programs lead to short-term improvements and can be particularly effective for youth with AD/HD and aggressive behavior and/or anger-management problems.
- › A number of promising practices improve generalization of gains made through cognitive and behavioral training programs.
- › As parents and teachers are primary caregivers, changes in parent and teacher behavior and attitude are critical for behavior-management programs to be effective in children with AD/HD.

their research provides further evidence and confirmation of the benefits of combined medication and psychosocial treatment for youth with AD/HD.

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► **Miranda, A. & Presentacion, M.J. (2000). Efficacy of cognitive-behavioral therapy in the treatment of children with AD/HD with and without aggressiveness. *Psychology in the Schools*, 37, 169-182.**

The current theoretical focus of AD/HD as resulting from a failure to develop efficient self-control or self-regulation has stimulated a new round of research studies aimed at instilling skills rather than managing contingencies. These authors evaluated groups of children with AD/HD with and without aggressive behavior in a cognitive-behavioral self-control training program. On a short-term basis, the authors demonstrated improvements on several school-based measures for all treated groups. As found in other studies, the improvements of children with aggressive behavior were better than those without. Furthermore, according to parent report, the combined self-control and anger management treatment was more effective than either treatment alone.

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► **Posavic, H., Sheridan, S., et al. (1999). A cuing procedure to control impulsivity in children with AD/HD. *Behavior Modification*, 23, 234-253.**

It has been suggested that due to their poor self-control, children with AD/HD often know what to do but do not initiate appropriate behavior as the result of an inability to track cues. In the absence of noting a cue, the appropriate behavior is not forthcoming. These authors examined four boys with AD/HD in a social skills training program. A cuing strategy was included. Behavioral data collected by independent observers suggested that all subjects demonstrated positive changes in impulse control with the cuing strategy. Likewise, treatment effects appeared to have produced positive impact on a behavior not directly targeted for intervention. Additionally, the treatment agents viewed the cuing procedure very positively. The failure of cognitive or behavioral programs to generalize in children with AD/HD may in part be hypothesized as the result of lack of focus upon the need to cue children with AD/HD when to do what they know. Further research in this area may shed additional light on the importance of developing cuing techniques to facilitate generalization.

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► **Wells, K.C., Chi, T.C., Hinshaw, S.P., Epstein, J.N., Pfiffner, L., et al. (2006). Treatment related changes in objectively measured parenting behaviors in the multimodal treatment study of children with AD/HD. *Journal of Consulting Clinical Psychology*, 74, 658-670.**

Five hundred and seventy-nine ethnically and socioeconomically diverse children with AD/HD combined subtype between seven and ten years of age and their parents were recruited and assigned to one of four treatment groups for fourteen months of active intervention, medication management, intensive behavior therapy, the combination of the two or community-based treatment. Combined treatment produced significantly greater improvements in constructive parenting than did medication alone or community-based treatment, with effect sizes approaching medium for these contrasts. Treatment effects on child behaviors differed in that direction as well. The authors suggest the importance of changes in parenting behavior for families of children with AD/HD if treatment is to be effective. **A**

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