National Resource Center on AD|HD
A Program of CHADD

WHAT WE KNOW

Psychosocial Treatment for Children and Adolescents with AD/HD*

Psychosocial treatment is a critical part of treatment for attention-deficit/hyperactivity disorder (AD/HD) in children and adolescents. The scientific literature, the National Institute of Mental Health, and many professional organizations agree that behaviorally oriented psychosocial treatments—also called behavior therapy or behavior modification—and stimulant medication have a solid base of scientific evidence demonstrating their effectiveness. Behavior modification is the only nonmedical treatment for AD/HD with a large scientific evidence base.

Treating AD/HD in children often involves medical, educational and behavioral interventions. This comprehensive approach to treatment is called "multimodal" and consists of parent and child education about diagnosis and treatment, behavior management techniques, medication, and school programming and supports. The severity and type of AD/HD may be factors in deciding which components are necessary. Treatment should be tailored to the unique needs of each child and family.

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* This fact sheet should be read together with What We Know #3, "Managing Medication for Children and Adolescents with AD/HD."

This fact sheet will:

- define behavior modification
- describe effective parent training, school interventions and child interventions
- discuss the relationship between behavior modification and stimulant medication in treating children and adolescents with AD/HD

WHY USE PSYCHOSOCIAL TREATMENTS?

Behavioral treatment for AD/HD is important for several reasons. First, children with AD/HD face problems in daily life that go well beyond their symptoms of inattentiveness, hyperactivity and impulsivity, including poor academic performance and behavior at school, poor relationships with peers and siblings, failure to obey adult requests, and poor relationships with their parents. These problems are extremely important because they predict how children with AD/HD will do in the long run.

How a child with AD/HD will do in adulthood is best predicted by three things—(1) whether his or her parents use effective parenting skills, (2) how he or she gets along with other children, and (3) his or her success in school[1]. Psychosocial treatments are effective in treating these important domains. Second, behavioral treatments teach skills to parents and teachers that help them deal with children with AD/HD. They also teach skills to children with AD/HD that will help them overcome their impairments. Learning these skills is especially important because AD/HD is a chronic condition and these skills will be useful throughout the children's lives[2].

Behavioral treatments for AD/HD should be started as soon as the child receives a diagnosis. There are behavioral interventions that work well for preschoolers, elementary-age students, and teenagers with AD/HD, and there is consensus that starting early is better than starting later. Parents, schools, and practitioners should not put off beginning effective behavioral treatments for children with AD/HD[3,4].

WHAT IS BEHAVIOR MODIFICATION?

With behavior modification, parents, teachers and children learn specific techniques and skills from a therapist, or an educator experienced in the approach, that will help improve children's behavior. Parents and teachers then use the skills in their daily interactions with their children with AD/HD, resulting in improvement in the children's functioning in the key areas noted above. In addition, the children with AD/HD use the skills they learn in their interactions with other children.

Behavior modification is often put in terms of ABCs: Antecedents (things that set off or happen before behaviors), Behaviors (things the child does that parents and teachers want to change), and Consequences (things that happen after behaviors). In behavioral programs, adults learn to change antecedents (for example, how they give commands to children) and consequences (for example, how they react when a child obeys or disobeys a command) in order to change the child's behavior (that is, the child's response to the command). By consistently changing the ways that they respond to children's behaviors, adults teach the children new ways of behaving.

> **"Parent, teacher and child interventions should be carried out at the same time to get the best result…"**

Parent, teacher and child interventions should be carried out at the same time to get the best results[5,6]. The following four points should be incorporated into all three components of behavior modification:

1. Start with goals that the child can achieve in small steps.
2. Be consistent—across different times of the day, different settings, and different people.
3. Implement behavioral interventions over the long haul—not just for a few months.
4. Teaching and learning new skills take time, and children's improvement will be gradual.

Parents who want to try a behavioral approach with their children should learn what distinguishes behavior modification from other approaches so they can recognize effective behavioral treatment and be confident that what the therapist is offering will improve their child's functioning. Many psychotherapeutic treatments have not been proven to work for children with AD/HD. Traditional individual therapy, in which a child spends time with a therapist or school counselor talking about

his or her problems or playing with dolls or toys, is not behavior modification. Such “talk” or “play” therapies do not teach skills and have not been shown to work for children with AD/HD[7,8].

HOW DOES A BEHAVIOR MODIFICATION PROGRAM BEGIN?

The first step is identifying a mental health professional who can provide behavioral therapy. Finding the right professional may be difficult for some families, especially for those that are economically disadvantaged or socially or geographically isolated. Families should ask their primary care physicians for a referral or contact their insurance company for a list of providers who participate in the insurance plan, though health insurance may not cover the costs of the kind of intensive treatment that is most helpful. Other sources of referrals include professional associations and hospital and university AD/HD centers (visit www.help4adhd.org for a list).

The mental health professional begins with a complete evaluation of the child’s problems in daily life, including home, school (both behavioral and academic), and social settings. Most of this information comes from parents and teachers. The therapist also meets with the child to get a sense of what the child is like. The evaluation should result in a list of target areas for treatment. Target areas—often called target behaviors—are behaviors in which change is desired, and if changed, will help improve the child’s functioning/impairment and long-term outcome.

Target behaviors can be either negative behaviors that need to stop or new skills that need to be developed. That means that the areas targeted for treatment will typically not be the symptoms of AD/HD—overactivity, inattention and impulsivity—but rather the specific problems that those symptoms may cause in daily life. Common classroom target behaviors include “completes assigned work with 80 percent accuracy” and “follows classroom rules.” At home, “plays well with siblings (that is, no fights)” and “obeys parent requests or commands” are common target behaviors. (Lists of common target behaviors in school, home and peer settings can be downloaded in Daily Report Card packets at http://wings.buffalo.edu/adhd.)

After target behaviors are identified, similar behavioral interventions are implemented at home and at school. Parents and teachers learn and establish programs in which the environmental antecedents (the A’s) and consequences (the C’s) are modified to change the child’s target behaviors (the B’s). Treatment response is constantly monitored, through observation and measurement, and the interventions are modified when they fail to be helpful or are no longer needed.

PARENT TRAINING

Behavioral parent training programs have been used for many years and have been found to be very effective[9-19].

Although many of the ideas and techniques taught in behavioral parent training are common sense parenting techniques, most parents need careful teaching and support to learn parenting skills and use them consistently. It is very difficult for parents to buy a book, learn behavior modification, and implement an effective program on their own. Help from a professional is often necessary. The topics covered in a typical series of parent training sessions include the following:

- Establishing house rules and structure
- Learning to praise appropriate behaviors (praising good behavior at least five times as often as bad behavior is criticized) and ignoring mild inappropriate behaviors (choosing your battles)
- Using appropriate commands
- Using “when…then” contingencies (withdrawing rewards or privileges in response to inappropriate behavior)
- Planning ahead and working with children in public places
- Time out from positive reinforcement (using time outs as a consequence for inappropriate behavior)
- Daily charts and point/token systems with rewards and consequences
- School-home note system for rewarding behavior at school and tracking homework[20,21]

Some families can learn these skills quickly in the course of 8-10 meetings, while other families—often those with the most severely affected children—require more time and energy.

Parenting sessions usually involve an instructional book or videotape on how to use behavioral management procedures with children. The first session is often devoted to an overview of the diagnosis, causes, nature, and prognosis of AD/HD. Next, parents learn a variety of techniques, which they may already be using at home but not as consistently or correctly as needed. Parents then go home and implement what they have learned

in sessions during the week, and return to the parenting session the following week to discuss progress, solve problems, and learn a new technique.

Parent training can be conducted in groups or with individual families. Individual sessions often are implemented when a group is not available or when the family would benefit from a tailored approach that includes the child in sessions. This kind of treatment is called behavioral family therapy. The number of family therapy sessions varies depending on the severity of the problems[22,23,24]. CHADD offers a unique educational program to help parents and individuals navigate the challenges of AD/HD across the lifespan. Information about CHADD's "Parent to Parent" program can be found by visiting CHADD's Web site at www.chadd.org. Click on "Conferences and Training" and then "Parent to Parent Program."

When the child involved is a teenager, parent training is slightly different. Parents are taught behavioral techniques that are modified to be age-appropriate for adolescents. For example, time out is a consequence that is not effective with teenagers; instead, loss of privileges (such as having the car keys taken away) or assignment of work chores would be more appropriate. After parents have learned these techniques, the parents and teenager typically meet with the therapist together to learn how to come up with solutions to problems on which they all agree. Parents negotiate for improvements in the teenagers' target behaviors (such as better grades in school) in exchange for rewards that they can control (such as allowing the teenager to go out with friends). The give and take between parents and teenager in these sessions is necessary to motivate the teenager to work with the parents in making changes in his or her behavior.

"Interventions for peer relationships (how the child gets along with other children) are a critical component of treatment for children with AD/HD."

Applying these skills with children and teens with AD/HD takes a lot of hard work on the part of parents. However, the hard work pays off. Parents who master and consistently apply these skills will be rewarded with a child who behaves better and has a better relationship with parents and siblings.

SCHOOL INTERVENTIONS

As is the case with parent training, the techniques used to manage AD/HD in the classroom have been used for some time and are considered effective[25,26,27,28,29,30,31]. Many teachers who have had training in classroom management are quite expert in developing and implementing programs for students with AD/HD. However, because the majority of children with AD/HD are not enrolled in special education services, their teachers will most often be regular education teachers who may know little about AD/HD or behavior modification and will need assistance in learning and implementing the necessary programs. There are many widely available handbooks, texts and training programs that teach classroom behavior management skills to teachers. Most of these programs are designed for regular or special education classroom teachers who also receive training and guidance from school support staff or outside consultants. Parents of children with AD/HD should work closely with the teacher to support efforts in implementing classroom programs. (To read more about typical classroom behavioral management procedures, please see Appendix A.)

Managing teenagers with AD/HD in school is different from managing children with AD/HD. Teenagers need to be more involved in goal planning and implementation of interventions than do children. For example, teachers expect teenagers to be more responsible for belongings and assignments. They may expect students to write assignments in weekly planners rather than receive a daily report card. Organizational strategies and study skills therefore need to be taught to the adolescent with AD/HD. Parent involvement with the school, however, is as important at the middle and high school levels as it is in elementary school. Parents will often work with guidance counselors rather than individual teachers, so that the guidance counselor can coordinate intervention among the teachers.

CHILD INTERVENTIONS

Interventions for peer relationships (how the child gets along with other children) are a critical component

of treatment for children with AD/HD. Very often, children with AD/HD have serious problems in peer relationships[32,33,34,35]. Children who overcome these problems do better in the long run than those who continue to have problems with peers[36]. There is scientific basis for child-based treatments for AD/HD that focus on peer relationships. These treatments usually occur in group settings outside of the therapist's office.

There are five effective forms of intervention for peer relationships:

1. systematic teaching of social skills[37]
2. social problem solving[38,39,40]
3. teaching other behavioral skills often considered important by children, such as sports skills and board game rules[41]
4. decreasing undesirable and antisocial behaviors[42,43]
5. developing a close friendship

There are several settings for providing these interventions to children, including groups in office clinics, classrooms, small groups at school, and summer camps. All of the programs use methods that include coaching, use of examples, modeling, role-playing, feedback, rewards and consequences, and practice. It is best if these child-directed treatments are used when a parent is participating in parent training and school personnel are conducting an appropriate school intervention[44,45,46,47]. When parent and school interventions are integrated with child-focused treatments, problems getting along with other children (such as being bossy, not taking turns, and not sharing) that are being targeted in the child treatments are also included as target behaviors in the home and school programs so that the same behaviors are being monitored, prompted and rewarded in all three settings.

Social skills training groups are the most common form of treatment, and they typically focus on the systematic teaching of social skills. They are typically conducted at a clinic or in school in a counselor's office for 1-2 hours on a weekly basis for 6-12 weeks. Social skills groups with children with AD/HD are only effective when they are used with parent and school interventions and rewards and consequences to reduce disruptive and negative behaviors[48,49,50,51,52].

There are several models for working on peer relationships in the school setting that integrate several of the interventions listed above. They combine skills training with a major focus on decreasing negative and disruptive behavior and are typically conducted by school staff. Some of these programs are used with individual children (for instance, token programs in the classroom or at recess)[53,54] and some are schoolwide (such as peer mediation programs)[55,56].

Generally, the most effective treatments involve helping children get along better with other children. Programs in which children with AD/HD can work on peer problems in classroom or recreational settings are the most effective[57,58]. One model involves establishing a summer camp for children with AD/HD in which child-based management of peer problems and academic difficulties are integrated with parent training[59,60,61]. All five forms of peer intervention are incorporated in a 6-8 week program that runs for 6-9 hours on weekdays. Treatment is conducted in groups, with recreational activities (e.g., baseball, soccer) for the majority of the day, along with two hours of academics. One major focus is teaching skills in and knowledge of sports to the children. This is combined with intensive practice in social and problem-solving skills, good team work, decreasing negative behaviors, and developing close friendships.

Some approaches to child-based treatment for peer problems fall somewhere between clinic-based programs and intensive summer camps. Versions of both are conducted on Saturdays during the school year or after school. These involve 2-3 hour sessions in which children engage in recreational activities that integrate many of the forms of social skills intervention.

Finally, preliminary research suggests that having a best friend may have a protective effect on children with difficulties in peer relations as they develop through childhood and into adolescence[62,63]. Researchers have developed programs that help children with AD/HD build at least one close friendship. These programs always begin with the other forms of intervention described above and then add having the families schedule monitored play dates and other activities for their child and another child with whom they are attempting to foster a friendship.

It is important to emphasize that simply inserting a child with AD/HD in a setting where there is interaction with other children—such as Scouts, Little League or other sports, day care, or playing in the neighborhood without supervision—is not effective treatment for peer problems. Treatment for peer problems is quite complex and involves combining careful instruction in social and problem-solving skills with supervised practice in peer settings in which children receive rewards and

consequences for appropriate peer interactions. It is very difficult to intervene in the peer domain, and Scout leaders, Little League coaches, and day-care personnel are typically not trained to implement effective peer interventions.

WHAT ABOUT COMBINING PSYCHOSOCIAL APPROACHES WITH MEDICATION?

Numerous studies over the last 30 years show that both medication and behavioral treatment are effective in improving AD/HD symptoms. Short-term treatment studies that compared medication to behavioral treatment have found that medication alone is more effective in treating AD/HD symptoms than behavioral treatment alone. In some cases, combining the two approaches resulted in slightly better results.

The best-designed long-term treatment study—the Multimodal Treatment Study of Children with AD/HD (MTA)—was conducted by the National Institute of Mental Health. The MTA studied 579 children with AD/HD-combined type over a 14-month period. Each child received one of four possible treatments: medication management, behavioral treatment, a combination of the two, or the usual community care. The results of this landmark study were that children who were treated with medication alone, which was carefully managed and individually tailored, and children who received both medication and behavioral treatment experienced the greatest improvements in their AD/HD symptoms[64,55].

Combination treatment provided the best results in improving AD/HD and oppositional symptoms and in other areas of functioning, such as parenting and academic outcomes[66]. Overall, those who received closely monitored medication management had greater improvement in their AD/HD symptoms than children who received either intensive behavioral treatment without medication or community care with less carefully monitored medication. It is unclear whether children with the inattentive type will show the same pattern of response to behavioral interventions and medication as have children with combined type.

Some families may choose to try stimulant medication first, while others may be more comfortable beginning with behavioral therapy. Another option is to incorporate both approaches into the initial treatment plan. The combination of the two modalities may enable the intensity (and expense) of behavioral treatments and the dose of medication to be reduced[67,68,69,70].

A growing number of physicians believe that stimulant medication should not be used as the only intervention and should be combined with parent training and classroom behavioral interventions[71,72]. In the end, each family has to make treatment decisions based on the available resources and what makes the best sense for the particular child. No one treatment plan is appropriate for everyone.

WHAT IF THERE ARE OTHER PROBLEMS IN ADDITION TO AD/HD?

There are evidence-based behavioral treatments for problems that can co-exist with AD/HD, such as anxiety[73] and depression[74]. Just as play therapy and other non-behaviorally based therapies are not effective for AD/HD, they have not been documented to be effective for the conditions that often occur with AD/HD.

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INTERNET RESOURCES

Center for Children and Families, University at Buffalo, http://wings.buffalo.edu/adhd

Comprehensive Treatment for Attention Deficit Disorder, http://ctadd.net

MODEL PROGRAMS

The Incredible Years
www.incredibleyears.com

Triple P: Positive Parenting Program
www.triplep.net

The Early Risers Program
August, G.J., Realmuto, G.M., Hektner, J.M., & Bloomquist, M.L. (2001). An integrated components preventive intervention for aggressive elementary school children: The Early Risers Program. *Journal of Consulting and Clinical Psychology, 69,* 614–626.

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Please also visit the CHADD Web site at **www.chadd.org**.

Appendix A

Classroom Behavioral Management Procedures

The following list includes typical classroom behavioral management procedures. They are arranged in order from mildest and least restrictive to more intensive and most restrictive procedures. Some of these programs may be included in 504 plans or Individualized Educational Programs for children with AD/HD (see CHADD Fact Sheet #4). Typically, an intervention is individualized and consists of several components based on the child's needs, classroom resources, and the teacher's skills and preferences.

1. Classroom rules and structure

- Use classroom rules such as:
  - Be respectful of others.
  - Obey adults.
  - Work quietly.
  - Stay in assigned seat/area.
  - Use materials appropriately.
  - Raise hand to speak or ask for help.
  - Stay on task and complete assignments.
- Post the rules and review them before each class until learned.
- Make rules objective and measurable.
- Tailor the number of rules to developmental level.
- Establish a predictable environment.
- Enhance children's organization (folders/charts for work).
- Evaluate rule-following and give feedback/ consequences consistently.
- Tailor the frequency of feedback to developmental level.

2. Praise of appropriate behaviors and choosing battles carefully

- Ignore mild inappropriate behaviors that are not reinforced by peer attention.
- Use at least five times as many praises as negative comments.
- Use commands/reprimands to cue positive comments for children who are behaving appropriately — that is, find children who can be praised each time a reprimand or command is given to a child who is misbehaving.

3. Appropriate commands and reprimands

- Use clear, specific commands.
- Give private reprimands at the child's desk as much as possible.
- Reprimands should be brief, clear, neutral in tone, and as immediate as possible.

4. Individual accommodations and structure for the child

- Structure the classroom to maximize the child's success.
- Place the student's desk near the teacher to facilitate monitoring.
- Enlist a peer to help the student copy assignments from the board.
- Break assignments into small chunks.
- Give frequent and immediate feedback.
- Require corrections before new work is given.

5. Proactive interventions to increase academic performance—Such interventions can prevent problematic behavior from occurring and can be implemented by individuals other than the classroom teacher, such as peers or a classroom aide. When disruptive behavior is not the primary problem, these academic interventions can improve behavior significantly.

- Focus on increasing completion and accuracy of work.
- Offer task choices.
- Provide peer tutoring.
- Consider computer-assisted instruction.

6. "When…then" contingencies (withdrawing rewards or privileges in response to inappropriate behavior)—Examples include recess time contingent upon completion of work, staying after school to complete work, assigning less desirable work prior to more desirable assignments, and requiring assignment completion in study hall before allowing free time.

7. Daily school-home report card (instruction packet available at http://wings.buffalo.edu/adhd)—This tool allows parents and teacher to communicate regularly, identifying, monitoring and changing classroom

problems. It is inexpensive and minimal teacher time is required.

- Teachers determine the individualized target behaviors.
- Teachers evaluate targets at school and send the report card home with the child.
- Parents provide home-based rewards; more rewards for better performance and fewer for lesser performance.
- Teachers continually monitor and make adjustments to targets and criteria as behavior improves or new problems develop.
- Use the report card with other behavioral components such as commands, praise, rules, and academic programs.

8. Behavior chart and/or reward and consequence program (point or token system)

- Establish target behaviors and ensure that the child knows the behaviors and goals (e.g., list on index card taped to desk).
- Establish rewards for exhibiting target behaviors.
- Monitor the child and give feedback.
- Reward young children immediately.
- Use points, tokens or stars that can later be exchanged for rewards.

9. Classwide interventions and group contingencies—Such interventions encourage children to help one another because everyone can be rewarded. There is also potential for improvement in the behavior of the entire class.

- Establish goals for the class as well as the individual.
- Establish rewards for appropriate behavior that any student can earn (e.g., class lottery, jelly bean jar, wacky bucks).
- Establish a class reward system in which the entire class (or subset of the class) earns rewards based on class functioning as a whole (e.g, Good Behavior Game) or the functioning of the student with AD/HD.
- Tailor frequency of rewards and consequences to developmental level.

10. Time out—The child is removed, either in the classroom or to the office, from the ongoing activity for a few minutes (less for younger children and more for older) when he or she misbehaves.

11. Schoolwide programs—Such programs, which include schoolwide discipline plans, can be structured to minimize the problems experienced by children with AD/HD, while at the same time help manage the behavior of all students in a school.

Sample Daily Report Card

Child's Name: ______________________________ Date: ______________

	Special	Language Arts	Math	Reading	Science
Follows class rules (no more than 3 rule violations per period).	Y N	Y N	Y N	Y N	Y N
Completes assignments within the designated time.	Y N	Y N	Y N	Y N	Y N
Completes assignments with 80% accuracy.	Y N	Y N	Y N	Y N	Y N
Complies with teacher requests (no more than 3 instances of noncompliance per period).	Y N	Y N	Y N	Y N	Y N
No more than 3 instances of teasing per period.	Y N	Y N	Y N	Y N	Y N
Follows lunch rules (no more than 3 violations).	Y N				
Follows recess rules (no more than 3 violations).	Y N				
Other	Y N				

Total Number of "Yes" Answers ____________

Teacher's Initials: ____________

Comments: ______________________________