

Preventing Academic and Behavior Problems in Young Children with AD/HD

Early Intervention

by George J. DuPaul, Ph.D., and Lee Kern, Ph.D.

APPROXIMATELY 2 PERCENT of preschool-aged children show significant symptoms of attention-deficit/hyperactivity disorder (AD/HD) (Lavigne et al., 1996). About half of these children continue to show symptoms in elementary school, making them eligible for a diagnosis of AD/HD. The early onset of AD/HD symptoms is associated with a number of later difficulties (see top of Figure on page 31). Some of the most problematic are the development of additional disruptive behavior disorders, such as oppositional defiant disorder (ODD) and conduct disorder (CD); mood and anxiety disorders; poor academic progress; and risk for physical injuries.

The development of disruptive, defiant and aggressive behavior has been shown through numerous research studies to begin in the home during the toddler/preschool years. Children learn that problem behaviors—for example, crying or defiance—can stop what they perceive as controlling behaviors from their parents, such as requests to do something. Over time, children learn to use these problem behaviors to change unpleasant situations. By being consistent, setting limits and monitoring their child's behavior, parents can change this process (Webster-Stratton, 1998).

A second common outcome associated with AD/HD in early childhood is poor academic achievement. Academic problems often are seen from the beginning of a child's schooling and persist throughout his or her school career. A number of research studies have shown that exposure to reading and math at an early age can reduce later academic difficulties (for example, see Hart & Risley, 1995).

Young children with AD/HD also appear to be at greater than average risk for physical injuries and accidental poisonings, most likely due to high rates of



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impulsive and overactive behavior (for example, see Lahey et al., 1998). Furthermore, when children with AD/HD experience injuries, they are more likely to be serious (including loss of consciousness) compared with injuries of children without AD/HD.

It is clear that the best way to prevent behavior problems, boost academic functioning during the early elementary grades—kindergarten and first grade—and reduce injuries is to recognize symptoms early and provide intensive intervention. Unfortunately, few research studies have investigated effective intervention strategies for preschool-aged children with AD/HD. The studies conducted to date indicate that methylphenidate and other stimulant medications are effective in reducing AD/HD symptoms and related problem behaviors in young children; however, the extent to which medication is *necessary* in this age

group beyond alternative interventions (for example, behavior management) is not yet clear. As with older children with AD/HD, behavioral interventions—reward and penalty systems—can be very effective in reducing disruptive behaviors in home and preschool settings (Sonuga-Barke, Daley, & Thompson, 2001).

In light of the promise and limitations of prior efforts, we have developed a comprehensive, community-based early intervention program designed to reduce and/or prevent the most problematic outcomes associated with AD/HD symptoms in early childhood (see bottom of Figure on page 31). Currently, systematic data are being collected to evaluate short- and long-term outcomes in a sample of 100 preschoolers. The interventions focus on three areas (behavior problems, academic readiness/skills and child safety) and are being used across two settings (home and school). The intervention components include parent education, behavioral intervention at home and school, pre-academic readiness instruction at home and school, home-school communication and accident prevention. General strategies used to prevent behavior problems, academic problems and accidental injuries are described below.

Preventing Behavior Problems

Strategies to reduce behavior problems have advanced considerably in recent years. This advancement has resulted from a focus on problem prevention and skill development rather than on punishment. This approach requires carefully watching a child to identify *why* the behavior happens, referred to as the *function*. Common reasons or functions for problem behavior are to get someone's attention, to escape or avoid a command, or to obtain a desirable item or activity.

Once the function of the problem behavior is identified, preventive strategies and new skills can be introduced. For example, if a parent or caregiver determines that a problem behavior functions to get attention, he or she can take periodic breaks from activities to interact with the child. At the same time, the parent or caregiver can remind the child to ask nicely for things rather than screaming to get attention. Likewise, to prevent problem behaviors that function to escape a command, a preschool teacher might break the task into smaller parts and make sure the directions are clear. At the same time, the child can be prompted to request help with a difficult task. To prevent problems that function to get tangible items or activities, activities can stop at natural breaking points, such as the end of a television show. Also,



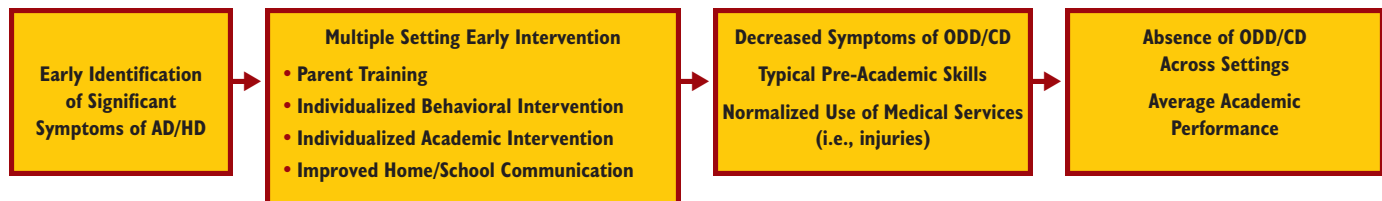
**Before issuing a request, get the child's attention.
Make sure the child understands what is requested.**

Early Intervention

Typical Outcomes of Early-Onset AD/HD:



Possible Outcomes with Early Intervention:



warnings that an activity is about to finish or offering alternative items or activities when highly preferred activities must conclude—such as reading a bedtime story when a child must turn off the television at bedtime—can decrease problems.

In addition to preventive and skill-building approaches, a few general interventions have been found to have a powerful influence on children's behavior. The first is praise. It is common to get caught up with ongoing activities and forget to notice a child until

he does something wrong. This unproductive cycle can be avoided by periodically and frequently catching the child being good and praising him or her for it. The child will begin to engage in the behavior more often to get adult praise.

A second general intervention is to follow through on requests that are made. Children learn quickly whether they really must follow an adult's request or can avoid it by whining, complaining or displaying other problems. The following steps help to increase



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Editor's Note: The Spanish translation of this article begins on page 38.

child compliance. Before issuing a request, get the child's attention. Make sure the child fully understands what is requested. Simple and clear requests are most effective, for example, "Put your Legos in the toy box." The request may need to be repeated if the child does not begin the task within a reasonable amount of time. After the task is completed, provide praise.

Finally, many behavior problems can be avoided through structure and routine. The preschool and home should be structured with activities that are age appropriate and interesting. Also, well-established routines should be regularly practiced, such as cleaning up and quietly transitioning from one activity to another at preschool or preparing for bedtime by changing clothes, brushing teeth, saying good night and selecting a story for bedtime reading.

Preventing Academic Problems

The foundations of reading and writing need to begin well before children enter school. Early skills have long-lasting effects on children's academic achievement. Below are activities to help young children gain important prerequisite skills.

Make children aware of books and print

- Read storybooks to children
- Label the pictures
- Comment on and ask questions about the story

and pictures

- Practice conventions of books, for example turning pages, identifying where text begins on the page
- Teach children to recognize familiar words, for example road signs, logos, their name
- Have children practice scribbling, making shapes and then writing letters

Help children learn the features of spoken language

- Encourage children to make animal sounds and object noises
- Have children repeat words, phrases or verses from nursery rhymes or songs
- Teach children to rhyme words
- Help children to identify the beginning, ending and middle sounds of words

Develop children's oral language skills

- Label objects
- Ask questions, for example, "What is your favorite toy?"
- Talk about stories you've read, such as, "Why did the frog do that?"
- Ask children to comment on objects, pictures or events, such as, "What do you use this for?"

Preventing Accidents and Injuries

Prevention is the key to avoiding accidents, particularly for active and curious children. The following strategies can help to avoid injuries in home and preschool settings for both children with and without AD/HD.

- Avoid injuries from falls by installing locks on doors to dangerous areas, using gates on stairways, fencing in play areas and making sure that surfaces under play equipment are soft.
- Prevent poisoning by keeping dangerous products out of reach and sight, leaving them in their original containers and using safety caps.
- Avoid burns by keeping children out of the kitchen when you are cooking and away from areas that contain objects with hot surfaces (iron, heater, grill).
- Prevent drowning by never leaving a child alone near any accumulation of water, including buckets, bathtubs, wading pools or swimming pools; fence or cover swimming pools.
- Avert car accident injuries by always using child safety seats placed in the back seat of the car.
- Avoid firearm accidents by keeping guns out of the home, or if necessary, keeping them unloaded and locked away.

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Conclusions

Although AD/HD cannot be prevented, problems associated with the disorder may be reduced with early intervention techniques. Effective prevention efforts require identifying symptoms early and using consistent behavioral, academic and accident prevention strategies across multiple settings. In particular, parents, preschool teachers and health professionals must be “on the same page” in using effective strategies in all settings. This requires communicating with one another to determine what works and encourage further improvement. Because the prevention of behavioral, academic and medical problems is a long-term process, a team approach is the key to sustaining intervention efforts during the critical early school years. ■

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Lahey, B.B., Pelham, W.E., Stein, M.A., Loney, J., Trapani, C., Nugent, K., Kipp, H., Schmidt, E., Lee, S., Cale, M., Gold, E., Hartung, C.M., Willcutt, E. & Baumann, B. (1998). Validity of DSM-IV attention-deficit/hyperactivity disorder for younger children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 37:695–702.

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Webster-Stratton, C. (1998). Preventing conduct problems in Head Start children: Strengthening parenting competencies. *Journal of Consulting and Clinical Psychology*, 66:715–730.

Resources

For behavior problems

Lucyshyn, J.M., Dunlap, G. & Albin, R.W. (2002). *Families and Positive Behavior Support*. Baltimore, Md.: Paul H. Brookes.

Center for Evidence-Based Practice: Young Children with Challenging Behavior (www.challengingbehavior.org).

Positive Approaches to Challenging Behavior for Young Children with Disabilities (<http://ici2.umn.edu/preschoolbehavior>).

For pre-academic activities

Adams, M.J., Foorman, B.R., Lundberg, I. & Beeler, T. (1998). *Phonemic Awareness in Young Children*. Baltimore, Md.: Paul H. Brookes.

Notari-Syverson, A., O'Connor, R.E. & Vadasy, P.F. (1998). *Ladders to Literacy*. Baltimore, Md.: Paul H. Brookes.

For safety tips

American Academy of Pediatrics, The Injury Prevention Program (www.aap.org).



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