# Behavior Management for Preschool-Aged Children

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**KEYWORDS**

• ADHD • Preschool children • Early childhood • Behavior management
• Early intervention

**KEY POINTS**

- Parent training (PT) has been found to be an effective treatment to improve behavior outcomes for children at high risk for attention-deficit/hyperactivity disorder (ADHD).
- Teacher training is also effective in improving child behavior within the classroom context.
- Combination treatments are a strong approach to increasing young children's behavioral outcomes across contexts (ie, home, school, and peer network).

## INTRODUCTION/BACKGROUND

### *Target of Treatment: ADHD Symptoms, Associated Features*

Parent, teachers, and mental health professionals are concerned about young children who display significant impulsivity and hyperactivity because the display of these behaviors places these children at significant risk for future maladaptive outcomes.[1] On the other hand, impulsivity, hyperactivity, oppositionality, and aggression are words that accurately characterize almost all preschool children's behavior at some time or other. For about 10% to 20% of 3- and 4-year-old children, and for about 20% to 30% of young children who experience poverty,[2,3] these behaviors are displayed at levels at home and/or at child care/preschool that significantly impair their functioning within those settings and warrant early effective treatment.[4] However, preschool children who display significant levels of impulsivity and hyperactivity are not

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| Abbreviations | |
|---|---|
| ADHD | Attention deficit/hyperactivity disorder |
| CD | Conduct disorder |
| CSEFEL | Center for the Social Emotional Foundation of Early Learning |
| ECMHC | Early childhood mental health consultation |
| ODD | Oppositional defiant disorder |
| TACSEI | Technical Assistance Center on Social Emotional Interventions |

likely to receive a formal diagnosis of ADHD because these behaviors are often transient for this age group of children, even for those who display these behaviors at high levels.[5] In addition, for young children, the behaviors specifically associated with ADHD often co-occur with externalizing behaviors such as noncompliance, aggression, and emotion dysregulation.[2] Therefore, this article focuses on the small percentage of preschool children who have a diagnosis of ADHD and the larger percentage of preschool children who are at risk for an eventual diagnosis of ADHD and co-occurring disruptive behavior disorders because they exhibit to a significant degree a broad range of externalizing behaviors within the home and/or school environments but do not have a formal ADHD diagnosis.

### *Need for Treatment*

For many children, rates of externalizing problems decline significantly during early childhood, even without intervention, but approximately half of preschool children continue to display disruptive behaviors over time.[2,5] For a subset of these children, their behaviors continue to escalate, becoming developmentally deviant in terms of their seriousness, chronicity, and impairment in adaptive functioning, thus warranting a Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition diagnosis of ADHD, oppositional defiant disorder, and/or conduct disorder.[1,5] Once established, disruptive behaviors become strikingly stable over time and are resistant to treatment.[6] The presence of early, severe, and pervasive hyperactivity, impulsivity, and inattention significantly increases the likelihood of negative outcomes across the family, school, and peer domains.[1] Developmental theory and prevention science indicate that early treatments for emerging problems, compared with later interventions, are more likely to interrupt the stabilization of behavioral, emotional, and social problems, thereby increasing children's likelihood of positive school success.[6–8]

### *Focus of Article*

In this article, the authors review empirically supported behavior management treatments for preschool children who display hyperactivity, impulsivity, and/or inattention at levels extreme enough to place them at risk for an ADHD diagnosis. Empirically supported interventions are those that show evidence that they work either through well-controlled experimental studies or through repeated replication of positive outcomes through less rigorous quasi-experimental and observational studies.[9] Because most preschool children will not have an ADHD diagnosis and because of the importance of early intervention and prevention in improving outcomes for children exhibiting significant disruptive behavior, the authors summarize a broad range of treatments that have evidence of effectiveness. These include treatments that have been evaluated using samples of preschool children diagnosed with ADHD and samples of children who are at risk for ADHD and co-occurring disruptive behavior disorders because they exhibit to a significant degree a broad range of externalizing behaviors within the home and/or school environments.

## INTERVENTIONS

The authors describe treatments that have an explicit focus on behavior management that has evidence of effectiveness. These include treatments that have been evaluated using samples of children diagnosed with ADHD, as well as treatments designed and evaluated for those children who are at risk for an eventual diagnosis of ADHD and co-occurring disruptive behavior disorders because they exhibit to a significant degree a broad range of externalizing behaviors within the home and/or school environments. Behaviorally based psychosocial treatments for preschool children who display behaviors indicating ADHD and other disruptive behaviors have strong empirical support for their effectiveness.[10] These interventions focus on improving children's outcomes through the use of parent- or teacher-implemented strategies that are based on operant conditioning principles (eg, positive reinforcement, negative reinforcement, punishment, extinction). Thus, parents and teachers are provided instruction on how to change their behavior, which in turn leads to improved child behavior.

### *Parent Training*

#### *Theoretic overview*

A variety of PT programs have been implemented with parents of young children who are at risk for ADHD or other disruptive disorders. Most programs share common features, including the following:

1. Increasing positive, supportive, and sensitive parenting
2. Increasing parental consistency through the use of proactive, appropriate discipline strategies

The implementation of strategies to increase the sensitivity and warmth of the parent–child relationship that occurs at the beginning of most PT programs[11–13] is grounded in attachment theory and the premise that parental warmth and sensitivity are necessary for children to form a secure attachment with the parent and that a secure parent–child attachment is foundational for adaptive child functioning.[14] Recent research supports this inclusion of relationship-supporting strategies—early parenting interventions that place particular emphasis on increasing parental sensitivity and responsiveness in addition to promoting proactive and positive parenting strategies are associated with significant decreases in young children's disruptive behaviors.[15,16] In theory, a warm and responsive parent–child relationship sets a foundation that allows parents' ability to sustain the delivery of the more behaviorally grounded interventions described later.

In all well-established parenting programs, a significant portion of time is spent working with the parent to promote proactive behavior management strategies to reduce child noncompliance and negative parent–child interactions. Patterson's coercion theory,[17] which posits that children learn that negative behaviors allow them to escape unpleasant events (eg, picking up toys, going to the supermarket), provides a developmental framework for the importance of improving parents' ability to provide appropriate, proactive, and consistent discipline. The theory describes how each time the child successfully escapes an event by using aversive behaviors, those behaviors are negatively reinforced. In addition, the parent is positively reinforced for permitting the child to escape the requested task as it stops the child's negative behavior. This continued process creates a cycle that, over time, can lead to increased problematic behavior in the child and parental use of highly punitive parenting practices to control the child's behavior. In PT, this coercive cycle is disrupted as parents learn to use appropriate behavior-management techniques.

***Description of parent training***

PT is often delivered in a group format, but it can also be delivered to an individual caregiver or caregiver unit (eg, mother and father) or to the parent–child dyad.[12,13,18,19] There are a wide number of PT programs available; some programs have been designed specifically for children who have ADHD,[20] and others are designed more broadly for children who display a range of disruptive behaviors.[21] Particular programs have features that distinguish them from one another. One component that varies widely between programs is the number of sessions parents are required to attend to complete PT; some PT programs comprise as many as twenty-four 2-h sessions,[13] whereas other studies suggest that PT can be effective in as few as 8 sessions.[22]

PT programs designed specifically for children who are diagnosed with ADHD share many core components. As examples, well-known and studied programs that are specifically targeted to young children who display behaviors that put them at high risk for ADHD include

- Webster-Stratton's Incredible Years parent training program[13]
- Eyberg's Parent–Child Interaction Therapy[12]
- Sonuga-Barke's New Forest Parenting Program[20]

A mental health professional provides the training to one or multiple primary caregivers in a series of PT sessions.

The content of PT sessions for parents of preschool children is similar to that of older children (7–10 years of age) and include some form of special time focusing on repairing and strengthening the emotional climate of the parent–child relationship (nondirective play, praise), followed by traditional behavior management techniques including commands effectively and finally to additional specific behavioral strategies to deal with misbehavior, such as token economies and time out. Building a warm and supportive parent–child relationship is of special importance when providing PT to parents of very young children because preschool children use the parent–child relationship as a primary resource to explore new environments, situations, and activities, to help regulate their own behavior and as a model for other relationships.

**Core component of parent training** A core component of most PT programs is that parents regularly receive homework assignments whereby they are required to implement the strategies they have learned at home and report back the results in the next session. Therefore, a portion of each session is spent processing with parents how they have adapted their parenting practices based on the content delivered during the prior session and how changes in their parenting affected their child's behavior.

Although the major content does not change when providing treatment to parents of young children with ADHD, it is important to make sure that parents and the mental health professional who provides the service consider the developmental expectations of the preschool children. Mental health professionals should present and describe specific parenting strategies in a way that is developmentally appropriate for a young child. For instance, using effective commands is a universal component of PT. For very young children, it is especially important that parents separate commands into short and discrete steps and provide additional scaffolding (ie, providing increased support based on the child's ability) to promote the child's completion of requested tasks. A preschool child should not be expected to comply with multiple chain commands (such as "Put your toys away and wash your hands because it's time for dinner and you need to go into the kitchen to eat"), as they are unlikely to

be completed successfully even by children with no behavioral problems. Instead, it is critical to deliver a series of short and simple commands whereby each command is followed by acknowledgment and praise. Entry into formal school (ie, transition to kindergarten) is important and often covered at the end of PT programs specific to preschool children to discuss topics of how parents can actively collaborate with teachers to increase their children's early school success. Depending on when PT is provided to parents, this topic can be covered during the last session or as a booster session that is timed in conjunction with the child's transition to kindergarten.[13,23]

#### *Evidence*

The support for the effectiveness of PT to manage the behavior for young children who display symptoms of ADHD and associated disruptive behaviors is well established at a Oxford Center for Evidence Based Medicine[9] (OCEBM) level 1 generally reporting moderate to large effect sizes on decreasing child disruptive behavior.[4,10,24–26]

### *Teacher Training*

#### *Theoretic overview*

The preschool classroom is an important service setting for early prevention or intervention, as more than 60% of children younger than 6 years and not yet enrolled in kindergarten are enrolled in regularly scheduled center-based care.[27] In addition, data from a recent national study indicated that preschool children are being expelled three times more frequently than children in grades K–12.[28] Likewise, early childhood teachers indicate that addressing challenging behaviors is the area in which they most need additional training.[29]

Within the classroom context, children who display behaviors indicating ADHD and associated disruptive disorders exhibit less close relationships with teachers,[30] more negative interactions with their peers,[31] and lower engagement with learning tasks and activities.[32] An array of classroom-based intervention and prevention strategies are available for teachers to use with preschool children who display challenging behaviors. These strategies focus on improving children's outcomes by modifying child behavior using basic behavioral principles.[10,33] Many programs use the response to intervention (RtI) model of service delivery, which includes

- Early identification through universal screening
- Ongoing progress monitoring
- Use of evidence-based instructional strategies that match children's level of need
- Decision making and problem solving based on children's performance
- Documentation of implementation

This model has recently been applied to the early childhood setting.[34] The RtI model emphasizes that broad attention to the fundamental competencies underlying social-emotional development can reduce the need for more intensive, individualized treatments. Technical assistance centers such as the Center for the Social Emotional Foundation of Early Learning (CSEFEL; http://csefel.vanderbelt.edu/) and the Technical Assistance Center on Social Emotional Interventions (TACSEI; http://www.tacsei.org/) have created easily accessible materials with the goal of increasing early childhood educator's access to and use of evidence-based strategies to address children's challenging behaviors. These Web sites include extensive, user-friendly training materials, videos, and print resources that are available for teachers to use to promote children's social-emotional competence.[34]

***Description***

Teacher training is most often delivered via a mental health professional (eg, school psychologist, mental health consultant [MHC]) and can be conducted via a series of group-based trainings or individually via ongoing consultation. The content of training usually includes strategies that can be used at both the classroom and individual child levels. For instance, teachers may receive training on the use of effective proactive classroom management techniques, such as consistent classroom rules and routines, setting limits, and positive reinforcement to be applied to all children in the classroom or to individualize these same strategies for a particular child or children who are displaying disruptive behaviors in the classroom. When implementing an RtI approach such as the Pyramid Model, teachers typically receive group-based training on the provision of universal, targeted, and intensive/individualized strategies.

**Assessment** For children evidencing the highest levels of ADHD and associated disruptive behaviors, there is a strong focus on comprehensive child assessment that guides decision making about where, how, and when to intervene with a child in the school context.[34] Functional behavior assessment is considered the gold standard for the purpose whereby antecedents, behaviors, and consequences are identified along with environmental contexts in which both negative and appropriate child behaviors are observed.[24,35]

**Intervention** After assessment, a combination of intervention strategies is implemented by the preschool teacher for a single child in consultation with the mental health professional. In these situations, the frequency of consultation varies widely, from a single session to multiple sessions per week. Strategies used may include some or all of the following: providing choice in activities whenever possible, establishing clear and consistent classroom rules that are positively stated (eg, "walk inside the classroom" rather than "no running in the classroom"), creating quick and smooth transitions between activities, ignoring mildly inappropriate behaviors, giving positive attention to and providing specific praise for appropriate behavior, and implementing token economies.

**Teacher training programs** One well-researched teacher training model is Webster-Stratton's Incredible Years program, which is a group-based teacher training program that focuses on providing teachers with effective proactive classroom management techniques, including the use of classroom rules and routines, limit setting, positive reinforcement, using incentives, using natural consequences for unwanted behavior, and helping children self-monitor their own behavior. In addition, in this program, teachers are provided training on strategies to promote children's emotional literacy and self-regulation, such as problem-solving coaching. Finally, teachers are encouraged to increase parental involvement in children's schooling through strategies such as sending regular parent letters and invitations to visit the classroom. The program consists of 28 to 32 hours (4 workshop days) of group-based training usually delivered to teachers on a monthly basis.

**Example** The following is an example of one of the techniques taught to teachers to help children better manage their own behavior. Teachers are encouraged to use the give me five signal to help children give the teacher their full attention. In this technique, each finger on the hand represents a specific behavior in which the child needs to engage. After children are taught, using a picture, what give me five means, the teacher can simply raise her open hand to get children's attention. This technique helps children to remember which behaviors to exhibit (eg, looking at the teacher

with hands in lap) and which behaviors to inhibit (eg, looking at and manipulating a toy).

There has been a focus on providing teachers training on how to improve children's behavior in the classroom using early childhood mental health consultation (ECMHC).[36] In ECMHC, a health care professional forms a collaborative partnership with early childhood care providers, such as preschool/child care teachers, teaching assistants, and program directors. The consultation is often child focused, with interventions directed to address the concerns of a particular child, but it can also be program or classroom focused, with services directed toward improving the classroom quality for all children. In this service delivery model, consultation is provided to child care/preschool staff within the context of a collaborative relationship to change teachers' skills and behaviors and promote improved classroom quality, behavior management techniques, and individual teacher-child interactions, which in turn affects children's outcomes.

#### *Empirical support*

These classroom-based, teacher-initiated behavioral intervention strategies have been found effective in decreasing children's challenging behavior, as well as in improving children's early academic skills.[10,37–41] Taken together, the research base indicates that teacher training focused on increasing teacher's use of behavior management strategies within the classroom in improving children's behavioral outcomes is well established at OCEBM level 1.

## CLINICAL DECISION MAKING

### *Who Is Most Likely to Respond (eg, Patient Characteristics, Family Variables)?*

Research indicates that PT is not equally effective for all children and that the variability in treatment effectiveness has more to do with parent and sociodemographic characteristics than child characteristics.[26] Low income, single parenthood, maternal depression, social isolation, and stress have been identified as parental factors that are likely to reduce the effectiveness of PT to improve child behavior.[42,43] Attrition rates in PT programs are high, with 50% or more parents failing to attend at least half of group PT sessions.[23,44] Teacher training is also not universally effective. Effectiveness depends on the intensity of teacher training, with more evidence supporting the use of ongoing coaching as opposed to one-and-done workshops.[45] In addition, research indicates that effectiveness of ECMHC depends on consultants implementing teacher training of behavior management principles with fidelity.[46]

### *What Outcomes Are Most Likely to Be Affected by Treatment (eg, ADHD Symptoms, Academic Impairment, Parental Stress)?*

Research indicates that parent and teacher training results in improvement in child disruptive behavior as measured by rating scales and independent observations of child behavior.[4,26,35,46,47] In addition, one can also expect to see changes in parent and teacher behavior in terms of increased use of effective behavior management strategies and decreased use of ineffective strategies.[23,26,39] Outcomes for treatment are likely to be at point of performance—one expects to see positive impacts on behavior at the time that the behavior management strategies are being implemented.[48] There is little indication that treatment in one area generalizes to another. This is true both proximally (eg, a teacher's use of praise during circle time will likely improve the child's attention level during circle time but the teacher's use of praise during circle time would likely not extend to seeing improvement in child behavior

during small group time) and distally (eg, a parents' use of effective commands is not expected to change the child's behavior in the preschool classroom and vice versa).

### *What Are the Contraindications for Behavior Management Treatment?*

There are no known contraindications for providing behavior management–focused interventions to preschool children who are diagnosed with or who are at risk for ADHD.

### *What Are Potential Adverse Effects of the Treatment?*

There are no adverse effects for providing behavior management–focused interventions to preschool children who are diagnosed with or who are at risk for ADHD.

### *How Should Behavior Management Treatment Be Sequenced and/or Integrated with Drug Therapy and with Other Nondrug Treatments (eg, Stand Alone, Combination Therapy)*

#### *Stimulant medication*

The use of stimulant medication for children younger than 6 years, alone or in combination with psychosocial treatments, is not indicated as the first choice of treatment.[26] Results from the Preschool Attention-Deficit/Hyperactivity Disorder Treatment Study, a comprehensive examination of the use of methylphenidate in preschool children with ADHD indicated that the use of stimulant medication was not as effective in reducing symptoms of ADHD or functional impairments as compared with outcomes of school-aged children and that significantly more side effects were reported for preschool children as compared with older, school-aged children.[1,26] In addition, parents do not prefer medication as a first line of treatment of young children and report significant concerns regarding side effects.[26,49]

#### *Comprehensive treatment*

The treatments that have been shown to be effective in improving behavioral outcomes across contexts (ie, home and school) for young children at high risk for ADHD tend to be intensive and comprehensive in nature. For example, the parent and teacher training portions of Webster-Stratton's Incredible Years Program were summarized previously. Although each of these programs in isolation is effective at significantly reducing young children's externalizing problems, the effects on children's outcomes are enhanced when these programs are used in combination.[13,50]

In addition, the PT and/or teacher training can also be combined with social skills training for children. There is evidence that group-based social skills programs are effective in decreasing the social, cognitive, and behavioral deficits that often accompany disruptive behavior problems[47,51–53] if the programs

1. Explicitly teach children targeted and specific social and emotional management skills
2. Are implemented within the actual environments where children have to interact with other children
3. Teach and coach skills in vivo
4. Have children practice in the actual settings in which the skills need to be used

Key to these interventions is that the social skills training is delivered by teachers directly to children within the classroom, the context in which children are struggling in their interactions with their peers. In addition, these interventions share an emphasis on the importance of enhancing children's ability to regulate their emotions, which has

been found to mediate the relationship between implementation of multimodal interventions and improvements in child outcomes.[54]

***Example: Chicago School Readiness Project***

The Chicago School Readiness Project (CSRP) is an example of an effective multicomponent treatment that combines the use of several evidence-based treatments to be delivered largely through mental health consultation.[55] The project was targeted to children in preschool Head Start classrooms and intended to improve the emotional and behavioral regulation of students living in poverty. MHCs helped teachers form positive relationships with their students through classroom management and engagement techniques. The intervention occurred across an entire school year and consisted of 4 components.

1. The first part of the intervention was based on the Incredible Years,[13] which specifically targets teachers' effective classroom management.
2. The second component of the intervention involved teachers and consultants working together to implement strategies learned in the training.
3. The third component of the intervention focused on teacher stress reduction and personalized discussions between consultants and teachers on ways to cope with difficult situations.
4. The final component of the intervention occurred during the final 10 weeks of the program. At this time, consultants provided individual and group therapy to children identified as evidencing high levels of behavior problems.

***Results***

The results from the initial trial of CSRP indicated that the program increased positive teacher practices and reduced children's behavior problems. Teachers in the intervention condition showed increases in teacher sensitivity and were more likely to demonstrate improved behavior management skills relative to controls.[56] The intervention was also effective in improving student behaviors; students in treatment sites showed significant reductions in behavior problems according to both teacher report and classroom behavioral observations.[55] CSRP has been replicated in 2 larger trials (now known as the Foundations of Learning Project) that also evidenced improvements in positive child outcomes.[57] In both trials, participation in the intervention resulted in teachers providing more effective classroom management, children displaying fewer problem behaviors, children displaying improved cognitive regulation skills (ie, attention, working memory, inhibitory control), and increased classroom task engagement.

## FUTURE DIRECTIONS

The research summarized in this article highlights the need for combined approaches (PT, teacher training, child social skills training) to positively affect children's behaviors across home and school contexts.[13,50] In addition, behavior management treatment of young children at high risk for ADHD, like child intervention in general, needs additional focus and research on understanding and addressing those factors that serve as barriers to accessing the effective strategies outlined in this article.[58]

Even though well-validated approaches to support children's social-emotional competence are available, teachers continue to indicate that addressing challenging behaviors is the area in which they most need additional training.[59] Thus, additional research is needed on how to increase the uptake of these strategies by parents of young children and early childhood teachers. For example, the new emphasis on ECMHC and the availability of research-informed but easily accessible materials

such as those found at the CSEFEL and TACSEI technical assistance Web sites may help increase the likelihood that behavior management strategies will be used by parents and teachers to improve the behavior outcomes for young children who are at high risk for ADHD and associated disruptive behaviors. There is some evidence that this approach is having a positive impact on children's behavioral outcomes.[36,41]

## SUMMARY

This article reviewed parent and teacher training as behavior management treatments to improve the behavioral outcomes of preschool children at high risk for ADHD. Both PT and teacher training are backed by substantial research evidence such that their effectiveness can be identified at OCEBM level 1. In addition, multimodal treatments that include some combination of PT, teacher training, and social skills training would also classify as OCEBM level 1 in terms of their effectiveness in improving child behavior outcomes. These interventions are delivered to the adults that the child interacts with during the day. Parents and teachers are provided with training and guidance on how to alter the child's environment to increase the child's behavioral success. Both parent and teacher training emphasize the need for a strong adult–child relationship combined with proactive behavior management strategies to prevent the display of negative child behavior and thus limit the need for more harsh and punitive strategies. The addition of social skills training provided in the classroom context has been shown to be beneficial improving children's skills to initiate and maintain appropriate peer interactions.

## RECOMMENDATIONS FOR CLINICIANS

- PT should be considered as a first treatment choice for preschool children who are at high risk for ADHD and whose behaviors need to be addressed within the home context.
- If the child is struggling in the preschool or child care context, teacher training on the use of behavior management strategies in the classroom should be implemented.
- Combining PT with ECMHC to early childhood education teachers is a strong approach to increasing young children's behavioral outcomes across contexts.
- Parent and teacher training of behavior management strategies can be supplemented with social skills training to facilitate initiation and maintenance of adaptive peer interactions.

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