INTRODUCTION TO PEDIATRIC ADHD

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Attention deficit hyperactivity disorder (ADHD) is one of the most common neurobehavioral disorders of childhood and adolescence and often persists into adulthood. It is a chronic condition that impacts approximately 9.4% of children in the US.[1]

ADHD core symptoms are clustered into broad categories of hyperactivity/impulsivity or inattention. In some cases, children have combined presentations. The symptoms lead to functional impairment in different aspects of a child's life, including at school and in their interpersonal and family relationships (behavioral, emotional, social functioning challenges). As such, a multimodal treatment approach aligned with chronic care models is recommended for optimizing both short- and long-term child outcomes.

WHAT ARE THE AAP RECOMMENDATIONS FOR PEDIATRIC ADHD TREATMENT?

The most recent guidelines from the American Academy of Pediatrics (AAP) recommend behavioral parent training and/or behavioral classroom interventions as the first line treatment for children diagnosed with ADHD between the ages of four and six. In certain cases, where other treatments have not improved the child's symptoms and functioning, a healthcare professional may recommend medication.

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For most children, between the ages of six and twelve, the recommendations include behavioral parent training interventions, FDA-approved medication for ADHD, and school-based interventions. The most commonly used medications belong to two categories of stimulants: amphetamines (dextroamphetamine/amphetamine), and methylphenidate. Other non-stimulant medications can be prescribed if there are specific contraindications to the stimulant medications, or treatment failure. Screening for common comorbidities (such as anxiety and depression, dyslexia) is recommended. For children older than twelve, a prescription for a stimulant medication is recommended alongside behavioral training interventions, if available.

School based interventions are also recommended, and are grouped into two broad categories: modification and accommodations. The first category includes interventions that are intended to help the student meet age-appropriate academic and behavioral expectations. Examples include daily report cards, seating proximity, and developing cueing systems. The second category allows for accommodations for the student, which translates into changes into the student's educational program. Examples include extended time to complete tests and assignments or changing how a student can respond to a prompt or instruction. These are often managed by school districts through an Individualized Education Program (IEP) or a 504 plan.

BEHAVIORAL PARENT TRAINING FOR SCHOOL-AGE CHILDREN

Behavioral Parent Training helps families of children with ADHD

The treatment recommendations for ADHD depend on a child's age because of developmental influences on child factors, behaviors, family systems, and a child's environment. For children ages six through twelve, the American Academy of Pediatrics (AAP) ADHD Clinical Practice Guidelines recommends children receive FDA approved medications, parent training in behavior management, and behavioral classroom interventions, preferably together.[2]

Behavioral Parent Training (BPT) is an essential component of an ADHD treatment plan because it addresses functional, environmental, and interpersonal factors that impact behavioral difficulties, whereas medication is limited to symptoms themselves.[3] Thanks to many decades of research, BPT is considered "well-established" level of evidence as a

treatment for ADHD.[4] Benefits of treatment include: improved problematic behaviors, reducing parent stress,[5] improving positive parenting and parent-self efficacy, and reducing family conflict.[3]

Beyond clinical improvement, recent sequencing studies have indicated that providing behavior management strategies including BPT prior to medication has potential for lowering overall costs while improving school functioning.[6] What's more, Coles, Pelham and Fabiano (2020) suggest that introducing behavioral therapy first as part of a treatment plan may reduce the medication dosage needed as part of a treatment plan.[7] These studies are especially important to consider in the context of the benefits for lowered doses when medication side effects are present.

BPT includes evidence-based strategies

In BPT, caregivers learn strategies that can strengthen their relationship while reducing difficult behaviors. BPT programs are most often based in operant learning and social learning theories. Parents are taught how to increase or decrease behaviors using positive reinforcement (e.g. praise and effective prompts) and negative reinforcement (e.g. active ignoring) (parent program components).

Example caregiver strategies common in BPT for ADHD programs:

- Psychoeducation about ADHD
- Special time
- Praise
- Effective commands
- Reward systems and routines
- Emotion coaching
- Combining skills for future behavior success

BPT programs teach caregivers how to optimize parenting, create and communicate structure, provide more frequent rewards, and increase positive interactions – which can all benefit children with ADHD.

Why individual psychotherapy is *not* recommended as an ADHD treatment for school-age children

At this time, well-established psychotherapy for ADHD includes BPT. Additional well-established behavioral approaches outside of therapy include behavioral classroom

management and behavioral peer interventions.[4]

Individual (child-only) therapy has not been shown to improve ADHD symptoms or deficits. Although Cognitive Behavioral Therapy (CBT) improves emotional disorders that are often comorbid with ADHD (such as anxiety and depression), it is not considered an effective treatment for ADHD symptoms and deficits alone.[3]

BPT is underutilized

Unfortunately, there is a gap between guidelines and implementation. In a recent study, 90.8% of children with ADHD had ever received medication for ADHD, while only 30.9% had ever received parent training.[8] A review from the Office of Inspector General shared that over 54,000 children with Medicaid insurance did not receive guideline-recommend behavioral therapy between 2014-2015.[9]

Obstacles to BPT utilization include both provider-facing and patient-facing factors including "lack of awareness about the benefits of behavior training, difficulty in identifying or accessing appropriate providers, and the initial cost and time investment needed for behavior training."[8]

Treatment options for BPT

Behavioral Parent Training can be delivered in both individual family and group family settings. Both models are considered effective treatments for ADHD.[10]

BPT is offered in-person, as well as virtually. A 2013 randomized control trial demonstrated similar treatment effects with videoconference and face-to-face BPT for ADHD.[11] A recent study with preschool age children at-risk for ADHD also showed similar efficacious outcomes when comparing in-person to virtually-delivered BPT.[12] A 2021 study completed in Germany demonstrated that a telephone-assisted self-guided parent-facing behavioral program resulted in improvements in behavior for children with ADHD, even one year after completion.[13] These studies are promising as offering BPT virtually may help bring evidence-based interventions closer to families without current access due to time and/or geography.

BPT and primary care

AAP recommends that pediatricians provide ADHD management for children, and yet overall quality of care delivered is modest.[14] Unfortunately, there is likely not enough time for

clinicians to manage chronic-disease during typical visits. Furthermore, considering the multidisciplinary recommendations of AAP Guidelines for ADHD, pediatricians must depend on psychology and school colleagues to implement multimodal interventions when indicated.

It is not surprising then that integrated behavioral health and primary care models have the potential to increase timely access to guideline-recommended care.[15] A recent systematic review described integrated care models that improved outcomes and increased access for children with ADHD-related needs.[15] Even an action as simple as note from a pediatrician recommending BPT to a family (versus an informational flyer alone) can change the likelihood that a family engages with recommended care.[16]

Future directions of ADHD care should focus on integrating pediatrician and behavioral health specialists throughout a child's ADHD journey.

Clarity Pediatrics' BPT services

Clarity Pediatrics offers BPT parent groups tailored specifically for families with ADHD. Created by psychologists and pediatricians, our program aims to help increase access to evidence-based parenting strategies for families of children with ADHD referred by a pediatrician, family physician, or other PCP.

Here are unique characteristics of our BPT program:

- 8 weekly sessions of group BPT
- Delivered by licensed child specialists
- Topics include general parent training skills and ADHD specific skills (such as creating reward systems that work well for a child with ADHD)
- Access to psychologists and group chat threads via secure messaging portal
- Treatment summaries and recommendations sent back to primary PCP

HOW CLARITY PEDIATRICS ENHANCES THE CARE FOR CHILDREN WITH ADHD IN THE PRIMARY CARE PRACTICE SETTING

Despite being a key recommendation from the AAP guidelines, BPT is not widely available and as a consequence, only about 20% of patients with ADHD are able to access it. Clarity Pediatrics provides access to evidence-based BPT, delivered by licensed child specialists, who

are experts in caring for children with ADHD and their families.

By partnering with us, pediatricians can expect their patient families to have access to the following services:

- Our initial diagnostic assessment, provided by a child psychologist, may confirm a diagnosis of ADHD and screen for comorbidities and other potential behavioral health diagnosis.
- Our 8-week Behavioral Parent Training group program was designed by ADHD specialists and researchers. It is aligned with AAP guidelines and allows your patient families to have access to more comprehensive treatment options compared with what is typically available.
- Further, for patients where either the family or the pediatrician are hesitant to start stimulant medications, BPT can help the child and family improve functional outcomes and family and school relationships.
- Our philosophy of partnership with the primary care doctor includes meaningful updates back to the pediatrician. Referring colleagues can expect confirmation of recommendations and next steps after the initial patient consultation is completed.

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