A Child Development Institute
White Paper

3528 E Ridgeway Road
Orange, California 92867
866-510-6556
www.childdevelopmentinfo.com

Evidence-Based Psychological Treatment for Children with ADHD

By Robert Myers, PhD

May 30, 2007

Contents

Introduction 1

Review of Evidence-Based Treatment Used in Total Focus 3

Parenting Skills Training 3
Psychotherapy 4
Behavioral Therapy 5
Social Skills Training 5
Relaxation Training 5
Cognitive Rehabilitation Exercises 6

Summary 6
Product Description 7
Bibliography 8

Introduction

In their Treatment Guidelines for Attention Deficit Hyperactivity Disorder [(1)], the *American Academy of Pediatrics* clearly states that a care plan for children with this condition should include psychological interventions along with any prescribed medication. For some children with mild to moderate symptoms psychological intervention may prove sufficient to improve or alleviate symptoms. Also, some research studies indicate that the use of psychological-behavioral interventions along with medication may reduce the dose of medication necessary for effective treatment.

Unfortunately, psychological interventions are often only minimally addressed or left out entirely. This is often due to time constraints for the physician as well as the parents and the child. A 1998 study of the treatment of ADHD among special education students found that almost 75% received their care from a primary care physician and 68% of those receiving care from a PCP had no contact with a mental health professional [(5)] The study also noted that care from PCPs "was characterized by fewer sessions, less time with the patient, and less use of multimodal therapies." In 2005 a study concerned with adherence to diagnostic and treatment guidelines stated, "many primary care physicians report poor access to mental health services, limited insurance coverage, and other potential system barriers to the delivery of ADHD care". [(22)]

Making appropriate educational materials easily available may prove to be difficult for a busy practice. Referral to a mental health professional may be hindered by the cost of the care or the time and commitment involved and also the ability to connect the patient and family with a qualified mental health professional who specializes in the treatment of ADHD. Therefore, a program like *Total Focus* can provide an efficient means to make this valuable help easily, readily and affordably available to those who can benefit from it.

One major finding of the MTA Study [(2)] was that the children of parents who developed a disciplined yet positive approach to parenting were able to maintain treatment gains during the 14 month period of the study. One of the

primary goals of the parent education module of *Total Focus* is to enable parents to adopt a parenting style that will work not only for the ADHD child but also for the entire family.

When parents implement the major components of the program, they end up developing a family culture that is healthy and supportive to the entire family and therefore likely to endure for many years if not become a permanent fixture in their daily lives.

During the course of coaching their child through the various modules such as problem solving and relaxation training both the parent and the child develop valuable coping skills. This along with implementing the "The Special 20" technique also builds the type of positive bond between parent and child that has been found through research to result in the development of a teenager and young adult who is capable of successfully navigating the dangerous shoals encountered at school and in the community.

Some of the psychological interventions such as problem solving training and social skills training included in *Total Focus* have not always been recommended as part of a treatment plan for a child with ADHD due to research based on the use of these techniques in a group setting. However, newer research indicates that when these techniques are implemented through a parent/child collaborative approach to learning they can be very effective.

Review of the Evidence Based Psychological Treatment for Children with ADHD Used In Total Focus:

Descriptions of the various techniques discussed below were provided by *National Institute of Mental Health* and include all of the recommended psychological interventions provided in Attention Deficit Hyperactivity Disorder 2006 (rev) NIH Publication No. 3572 [3] Evidence from scientific research studies indicating the usefulness for each component in *Total Focus* is provided below along with a description of how each component provides the recommended treatment.

Parenting Skills Training, offered by therapists or in special classes, gives parents tools and techniques for managing their child's behavior. One such technique is the use of token or point systems for immediately rewarding good behavior or work. Another is the use of "time-out" or isolation to a chair or bedroom when the child becomes too unruly or out of control. During time-outs, the child is removed from the agitating situation and sits alone quietly for a short time to calm down. Parents may also be taught to give the child "quality time" each day, in which they share a pleasurable or relaxing activity. During this time together, the parent looks for opportunities to notice and point out what the child does well, and praise his or her strengths and abilities.

This system of rewards and penalties can be an effective way to modify a child's behavior. The parents (or teacher) identify a few desirable behaviors that they want to encourage in the child—such as asking for a toy instead of grabbing it, or completing a simple task. The child is told exactly what is expected in order to earn the reward. The child receives the reward when he performs the desired behavior and a mild penalty when he doesn't. A reward can be small, perhaps a token that can be exchanged for special privileges, but it should be something the child wants and is eager to earn. The penalty might be removal of a token or a brief time-out. *Make an effort to find your child being good*. The goal, over time, is to help children learn to control their own behavior and to choose the more desired behavior. The technique works well with all children, although children with ADHD may need more frequent rewards.

In addition, parents may learn to structure situations in ways that will allow their child to succeed. This may include allowing only one or two playmates at a time, so that their child doesn't get over-stimulated. Or if their child has trouble completing tasks, they may learn to help the child divide a large task into small steps, then praise the child as each step is completed. Regardless of the specific

technique parents may use to modify their child's behavior, some general principles appear to be useful for most children with ADHD. These include providing more frequent and immediate feedback (including rewards and punishment), setting up more structure in advance of potential problem situations, and providing greater supervision and encouragement to children with ADHD in relatively unrewarding or tedious situations.

Parents may also learn to use stress management methods, such as meditation, relaxation techniques, and exercise, to increase their own tolerance for frustration so that they can respond more calmly to their child's behavior.

Evidence: The MTA Study [2] concluded that "long-term combination treatments and the medication-management alone were superior to intensive behavioral treatment and routine community treatment. And in some areas—anxiety, academic performance, oppositionality, parent-child relations, and social skills—the combined treatment was usually superior. Another advantage of combined treatment was that children could be successfully treated with lower doses of medicine, compared with the medication-only group". Most professionals agree that this intervention should be available to all parents of kids with ADHD.

Total Focus: Audio and workbook lessons provide parents with the tools the need to successfully manage their child's behavior at home and in the community. The home/school behavioral program reinforces appropriate behavior and achievement at school. The audio lessons expand a parent's time as they can listen and learn while driving to work or around town. The bonus lesson, "ADHD: First Aid for Parents" provides proven techniques that are easy to implement and handle a wide range of behavior problems. They include: The First Time Club – The "I'm Bored" College – The High Sign Technique – Catch Them Being Good – The Saturday Box – Grandma's Rule – Time Out the Toy. The use of family meetings and encouraging parents to spend time each day having a fun time with their children promotes a climate of acceptance, support and cohesion that will produce healthy development in children whether they have ADHD or not.

Psychotherapy works to help people with ADHD to like and accept themselves despite their disorder. It does not address the symptoms or underlying causes of the disorder. In psychotherapy, patients talk with the therapist about upsetting thoughts and feelings, explore self-defeating patterns of behavior, and learn alternative ways to handle their emotions. As they talk, the therapist tries to help them understand how they can change or better cope with their disorder.

Evidence: In one study Cognitive Behavioral Therapy was found to be helpful in helping hyperactive boys develop anger control. The findings indicated that "Methylphenidate (Ritalin) reduced the intensity of the hyperactive boys' behavior but did not significantly increase either global or specific measures of self-control. Cognitive-behavioral treatment, when compared to control training, was more successful in enhancing both general self-control and the use of specific coping strategies." [13] However, literature reviews consistently find little support for the use of Cognitive Behavioral Therapy to specifically treat ADHD in children. Yet clinical experience shows that many of these kids experience low self-esteem, anxiety, OCD symptoms that respond well to Cognitive Behavioral Therapy. These may be reactions to or manifestations of ADHD or be related to a co-morbid disorder. Cognitive Behavioral Therapy with children has been shown to be effective and often the treatment of choice for childhood anxiety, depression, bipolar disorder and OCD. [6] [15] [4] [17] [26]

Total Focus: Audio lessons combined with workbook material use Cognitive Behavioral Therapy to boost self-esteem and motivation. Techniques include the use of positive affirmations that apply to specific situations. Acronyms like HOME for developing coping skills around the home, IDEA to teach problem solving and phrases like "Stop the Stinking Thinking – Start

Smart Talking" provide verbal intermediaries so necessary for these kids to remember and apply all that they learn through participation in the program.

Behavioral Therapy helps people develop more effective ways to work on immediate issues. Rather than helping the child understand his or her feelings and actions, it helps directly in changing their thinking and coping and thus may lead to changes in behavior. The support might be practical assistance, like help in organizing tasks or schoolwork or dealing with emotionally charged events. Or the support might be in self-monitoring one's own behavior and giving self-praise or rewards for acting in a desired way such as controlling anger or thinking before acting.

Evidence: The MTA Study [2] found that the combined treatment (medication management with behavior therapy), compared with medication alone, offered improved scores on academic measures, measures of conduct, and some specific ADHD symptoms (although not on global ADHD symptom scales). Although these trends were consistent, few reached statistical significance. In addition, parents and teachers of children receiving combined therapy were significantly more satisfied with the treatment plan. Using a different approach to data analysis, a team lead by Wigal concluded that "with the overall measure used in this analysis, combined multimodal therapy has a clinically meaningful and statistically significant advantage over monotherapies and community treatment." [7]

Total Focus: Audio and workbook lessons teach problem solving techniques for use at home and school. The lessons also help children to develop a positive attitude about themselves and those around them.

Social Skills Training can also help children learn new behaviors. In social skills training, the therapist discusses and models appropriate behaviors important in developing and maintaining social relationships, like waiting for a turn, sharing toys, asking for help, or responding to teasing, then gives children a chance to practice. For example, a child might learn to "read" other people's facial expression and tone of voice in order to respond appropriately. Social Skills Training helps the child to develop better ways to play and work with other children.

Evidence: In general, "research suggests that SST alone is unlikely to produce significant and lasting change in psychopathology or global indicators of social competence. Rather, SST has become a widely accepted component of multi-method approaches to the treatment of many emotional, behavioral and developmental disorders." [24] Several recent studies have shown that SST works better when the parent works as a coach with the child to teach social skills and rehearse them for real-life situations. [10] [8] [18]

Total Focus: An audio lesson using FRIEND as an acronym teaches basic social skill concepts. The workbook provides materials that teaches appropriate skills for specific social situations and includes a "Feeling Faces" chart to teach recognition of emotions in others. Parents are given specific instructions on how to implement the module.

Relaxation Training Teaching children with attention deficit disorder how to relax can be effective in reducing hyperactivity and disruptive behavior while increasing attention span and task completion. The purpose of biofeedback is to enhance an individual's awareness of physical reactions to physical, emotional, or psychological stress, and their ability to influence their own physiological responses. The overall purpose is to develop self-regulation skills that play a role in improving health and well-being.

Evidence: Relaxation training *conducted by parents in the home* has been found not only to be effective in improving behavior and other symptoms but also improves over all relaxation when measured by biofeedback equipment [9] [20] A review of a number of

studies related to relaxation training with children concluded, "Findings suggest that relaxation training is at least as effective as other treatment approaches for a variety of learning, behavioral, and physiological disorders . . ." [21] Goldbeck found that "autogenic relaxation training is effective in a mildly disturbed outpatient population of children and adolescents with mostly internalizing symptoms, and/or some aggressive, impulsive, or attention deficit symptoms". [11]

Total Focus: Audio lessons combining relaxation training with guided imagery and positive suggestions are used to apply relaxation training to a variety of situations likely to be encountered by a child in the home and at school. Additional audio and workbook lessons teach general relaxation that can also be applied to help improve attention, concentration and frustration tolerance. Children are taught to use a deep breathing and a "secret word" to quickly relax when they start to feel "uptight." Audio and workbook exercises are also provided to help parents cope with stress and develop a positive parenting attitude. A temperature biofeedback card is included to facilitate the relaxation training sessions to help achieve maximum benefit.

Cognitive Rehabilitation Exercises (Brain Training) Can Improve Attention & Concentration as Well as Other Intellectual and Self-Control Functions. Victims of strokes or head injury may have significant impairments in attention and concentration. Cognitive Rehabilitation exercises are often used to help these people to improve their ability to concentrate and pay attention. This approach has been applied to children with attention deficit disorder with some success. The repeated use of simple attentional training exercises can help children to train their brains to concentrate and pay attention for longer periods of time. [19]

Evidence: Writing in *Scientific American* Gunjan Sinha states, "recent studies support the notion that many children with ADHD have cognitive deficits, specifically in working memory--the ability to hold in mind information that guides behavior. The cognitive problem manifests behaviorally as inattention and contributes to poor academic performance. Such research not only questions the value of medicating ADHD children, it also is redefining the disorder and leading to more meaningful treatment that includes cognitive training." [23] Using computer training with 7 – 11 year olds, Kerns found that "direct interventions aimed at improving attention may be a valuable treatment option for improving cognitive efficiency in children with ADHD and warrant further investigation." [14] In a training program for working memory, Klingberg found that "working memory can be improved by training in children with ADHD. This training also improves response inhibition and reasoning and resulted in a reduction of the parent-rated inattentive symptoms of ADHD". [16]

Total Focus: The workbook provides a series of cognitive rehab exercises in the form of simple tasks and games designed to improve attention, concentration, memory and executive functioning through repetitive practice. Parents are directed to games and play activities that reinforce the skills as well as to online resources for a wide variety of computer programs to improve these functions.

Summary

Recognizing the need for a methodology to increase access to evidence-based psychological treatment for children, Child Development Institute has produced a multi-media program known as *Total Focus* that involves the parents and children working together as a team to help the child achieve success at school and enjoy life at home and in the community.

The program is based on 20 years of clinical experience of Child Psychologist, Dr Bob Myers and is produced by a leading publisher of parenting programs. Dr Bob also shares additional insights from his own experience successfully raising a son with ADHD which parents find both comforting and encouraging.

Total Focus is cost effective (less than a three month supply of medication or one visit to a mental health specialist). It is an evidenced-based program using methods supported in the medical and scientific literature. *Total Focus* is based on psychological treatment strategies recommended by the National Institute of Mental Health.

Complete, easy to follow instructions are provided along with numerous questionnaires, charts and handouts for implementing behavior change programs and monitoring progress. Even telephone coaching by mental health professionals trained by the author of the program is available when desired.

The program can be used instead of medication for children with mild to moderate symptoms or as adjunctive therapy for those taking stimulant medication. The program not only provides parent education and behavior modification but provides psychological interventions that (1) teach coping skills, (2) improve motivation and self-esteem and (3) may address mild to moderate manifestations of possible comorbidity including anxiety, depression and ODD.

Product Description

Total Focus is a multi-media program that comes to on CD with an interactive workbook, daily success charts for teachers and a handy "stress meter" to help your child recognize when he's "over the top" and stay calm under stress. The program works with both you and your child.

Parent's Lessons Include:

- Audio Lesson on CD: One-on-One with Dr. Bob. He'll take you inside the mind of the attention disordered, hyperactive child. Learn how they really think, how to get through to them, the pros and cons of medication, how to get a proper diagnosis and the necessary support from school. Everything you need to know about ADHD and the behavior issues surrounding it.

- Step-by-step 138-page workbook. Easy 1-2-3 instructions for school and home to help your child focus, settle down, complete school work, take responsibility, improve memory and social skills, and control outbursts.

- School Success Charts and Daily Student Rating Cards: Your child's teacher can use these simple progress charts to help your child get on the path to improvement at school.

Plus! Bonus CD—ADHD: First Aid for Parents 11 must-have first-aid tips for parents.

Children's Lessons Include:

One-on-one audio lessons on CD where Dr Bob talks directly to your child. The program includes lessons for children to age 10 and children age 10 and above.

- Let's Get Focused
- 3 Secrets for School Success
- Problem Solving Made Easy
- Secrets of Making Friends
- I CAN at Home
- Learning to Slow Down and Think
- Improving Attention and Concentration

Bibliography

1: American Academy Of Pediatrics, Clinical Practice Guideline: Treatment of the School-Aged Child With Attention-Deficit/Hyperactivity Disorder. Pediatrics October 2001 108(4):1033-1044
2: National Institute of Mental Health, A 14-month randomized clinical trial of treatment strategies for attention-deficit/hyperactivity disorder. The MTA Cooperative Group. Multimodal Treatment Study of Children with ADHD Arch Gen Psychiatry. 1999 Dec;56(12):1073-86
3: National Institute of Mental Health, Attention Deficit Hyperactivity Disorder 2006 (rev) NIH Publication No. 3572
4: Asbahr FR, Castillo AR, Ito LM, Latorre MR, Moreira MN, Lotufo-Neto F. Group cognitive-behavioral therapy versus sertraline for the treatment of children and adolescents with obsessive-compulsive disorder. J Am Acad Child Adolesc Psychiatry. 2005 Nov; 44 (11):1128-36.
5: Bussing R, Zima BT, Belin TR. Variations in ADHD treatment among special education students. J Am Acad Child Adolesc Psychiatry. 1998 Sep;37(9):968-76.
6: Compton SN, March JS, Brent D, Albano AM 5th, Weersing R, Curry J. Cognitive-behavioral psychotherapy for anxiety and depressive disorders in children and adolescents: an evidence-based medicine review. J Am Acad Child Adolesc Psychiatry. 2004 Aug;43(8):930-59.
7: Conners CK, Epstein JN, March JS, Angold A, Wells KC, Klaric J, Swanson JM et al Multimodal treatment of ADHD in the MTA: an alternative outcome analysis. J Am Acad Child Adolesc Psychiatry. 2001 Feb;40(2):159-67.
8: Cousins LS, Weiss G. Parent training and social skills training for children with attention-deficit hyperactivity disorder: how can they be combined for greater effectiveness? Can J Psychiatry. 1993 Aug;38(6):449-57. Review.
9: Donney VK, Poppen R. Teaching parents to conduct behavioral relaxation training with their hyperactive children. J Behav Ther Exp Psychiatry. 1989 Dec;20(4):319-25.
10: Frankel F, Myatt R, Cantwell DP, Feinberg DT Parent-assisted transfer of children's social skills training: effects on children with and without attention-deficit hyperactivity disorder.
J Am Acad Child Adolesc Psychiatry. 1997 Aug;36(8):1056-64.
11: Goldbeck L, Schmid K. Effectiveness of autogenic relaxation training on children and adolescents with behavioral and emotional problems. J Am Acad Child Adolesc Psychiatry. 2003 Sep;42(9):1046-54.
12: Hampstead WJ. The effects of EMG ssisted relaxation training with hyperkinetic children: a behavioral alternative. Biofeedback Self Regul. 1979 Jun;4(2):113-25.
13: Hinshaw SP, Henker B, Whalen CK. Self-control in hyperactive boys in anger-inducing situations: effects of cognitive-behavioral training and of methylphenidate. J Abnorm Child Psychol. 1984 Mar;12(1):55-77.
14. Kerns KA Investigation of a Direct Intervention for Improving Attention in Young Children with ADHD Developmental Neuropsychology. 1999 16(2):273-295
15: King NJ, Tonge BJ, Heyne D, Pritchard M, Rollings S, Young D, Myerson N, Ollendick TH. Cognitive-behavioral treatment of school-refusing children: a controlled evaluation. J Am Acad Child Adolesc Psychiatry. 1998 Apr;37(4):395-403.
16: Klingberg T, Fernell E, Olesen PJ, Johnson M, Gustafsson P, Dahlstrom K, Gillberg CG, Forssberg H, Westerberg H. Computerized training of working memory in children with ADHD--a randomized, controlled trial. J Am Acad Child Adolesc Psychiatry. 2005 Feb;44(2):177-86.
17: Pavuluri MN, Graczyk PA, Henry DB, Carbray JA, Heidenreich J, Miklowitz DJ. Child- and family-focused cognitive-behavioral therapy for pediatric bipolar disorder: development and preliminary results. J Am Acad Child Adolesc Psychiatry. 2004 May;43(5):528-37.
18: Pfiffner, LJ Social skills training with parent generalization: treatment effects for children with attention deficit disorder. Jornal of Consulting and Clinical Psychology. 1997 Oct;65(5):749-57
19: Rapport MD, Loo S, Isaacs P, Goya S, Denney C, Scanlan S. Methylphenidate and attentional training. Comparative effects on behavior and neurocognitive performance in twin girls with attention deficit hyperactivity disorder. Behav Modif. 1996 Oct;20(4):428-30.
20: Raymer R, Poppen R. Behavioral relaxation training with hyperactive children. J Behav Ther Exp Psychiatry. 1985 Dec;16(4):309-16.
21: Richter NC. The efficacy of relaxation training with children. J Abnorm Child Psychol. 1984 Jun;12(2):319-44.
22: Rushton JL, Fant KE, Clark SJ Use of practice guidelines in the primary care of children with attention deficit hyperactivity disorder. Pediatrics 2004 Jul;114(1)223-8
23: Sinah F Training Ther Brain: Cognitive Therapy As An Alernative to ADHD Drugs. Scientific American 2005 Jul:292(1):22-3
24: Spence SH Social Skills Training with Children and Young People: Theory, Evidence and Practice. 2003
Child and Adolescent Mental Health 8 (2):84-96
25: Sullivan MG Cognitive-behavioral therapy effective for OCD Clinical Psychiatry news January 1, 2006
26: Wood JJ, Piacentini JC, Southam-Gerow M, Chu BC, Sigman M. Family cognitive behavioral therapy for child anxiety disorders. J Am Acad Child Adolesc Psychiatry. 2006 Mar;45(3):314-21.