ATTENTION DEFICIT HYPERACTIVITY DISORDER: FACTS, TREATMENTS, 
AND ALTERNATIVE RESOURCES

A HANDBOOK FOR PARENTS, EDUCATORS, AND RESEARCHERS

A graduate project submitted in partial fulfillments of the requirements

For the degree of Masters of Science in Counseling,

Marriage and Family Therapy

By

Daniel Joshua Titcher

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The graduate project of Daniel J. Titcher is approved:

___________________________________  __________________
Eric C. Lyden, M.A., LMFT  Date

___________________________________  __________________
Erica Lodgen-Rocklin, LMFT  Date

___________________________________  __________________
Stanley Charnofsky, Ed.D, Chair  Date

California State University, Northridge
DEDICATION

This project is dedicated to those I care about and who have been there with me on this journey that I have been on putting this project together.

First, I want to dedicate this project to my family for listening to me complain and whine about getting this thing done. I love you all.

I also want to dedicate this project to my friends and fellow colleagues in the Masters program at CSUN; we made it, we finally reached the end of our journey! Whether it’s December 2012 or May 2013, we have all come a long way since we started the program in Stan’s practicum. To my friends outside of school, thank you for putting up with my absence for wanting to hang out on the weekends. I truly appreciate your friendship and patience.

This project came to fruition from my many years working with children as a camp counselor, as well as a Frontline documentary on medicating children. There is a need for alternative treatments to ADHD, aside from the usual plethora of medical cocktails for kids.

Lastly, I want to thank my committee for helping me see this through to the end. Thank you for putting up with my emails, phone calls, text messages, showing up for office hours, and for your guidance. It has been great motivation me to get this thing done.
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ABSTRACT

ATTENTION DEFICIT HYPERACTIVITY DISORDER: FACTS, TREATMENTS, AND ALTERNATIVE RESOURCES

A HANDBOOK FOR PARENTS, EDUCATORS, AND RESEARCHERS

By

Daniel Joshua Titcher

Masters of Science in Counseling,

Marriage and Family Therapy

The purpose of this project was to create a handbook for parents, educators, and researchers on information regarding Attention Deficit Hyperactivity Disorder (ADHD). Material in this handbook consists of what ADHD is, diagnostic information as well as symptoms, implications of symptoms on children in different environmental settings, a look at the different treatments used to treat these symptoms, alternative treatments besides medications, and resources to consider should more information be requested to further one’s knowledge of the disorder and how to approach it.
Chapter One

Introduction

When I first decided to write a project, I had no idea where I would begin. Given my educational background in Psychology and previous work experience, it took some time to think about what I was going to explore more about, given the broad number of options that are out there. Then, when talking about my past work experience with other colleagues, something dawned on me, something that I remembered from my time as a camp counselor several summers ago. Sure, there have been several campers that I have worked with over the last several years, but for some reason, this camper came back into memory. With that, it gave me an idea, an idea that I have been looking forward to exploring.

Background

At the time, this camper, E.H., was eight years of age, ready to go into the 3rd grade at school. E.H. was a very bright young individual, who loved having fun at camp, and would always look forward to seeing what our camp group was going to do for the day. One of those days however, things were somewhat different. On that day, E.H. got into a fight with his friends over a game of basketball, yelling at a couple of the other campers, and pushing one his best friends onto the basketball court, which was burning hot. Because of this, E.H. was taken to the camp director’s office.

It was later revealed to my co-counselor and I that E.H. had Attention Deficit Hyperactivity Disorder (ADHD), and that his parents forgot to give him his daily medications for his ADHD. When E.H. came to camp the next day, I could tell that
something was different. He had taken his ADHD medications, one of which was Adderall, but was not the same, active camper. Throughout the day, he would show no interest in doing any activity; sports, swimming, game room to name a few. At lunchtime, where E.H. would always be with his friends talking and playing games, he was at his most calm and quiet. From what I saw, the thought of his current state of mind was a result of the Adderall that he had taken before camp started. That summer, E.H. had his good days, as well as the bad days.

**Statement of the Problem**

As the example in my background above shows, E.H. is just one out of many young children who are in the same situation, and that has to do with Attention Deficit Hyperactivity Disorder. As ADHD has become more prominent in the past several years, adults, including researchers, doctors, therapists, teachers, and parents have put time and effort into figuring out what the best solution is in helping children who have ADHD deal with the symptoms, taking the medication, and trying to have a good childhood. Short, Manos, Findling, and Schubel (2004) assert that diagnosing and treating symptoms of ADHD, as well as identifying those symptoms, is problematic due to high activity level, impulsivity, and a short attention span for most young school-aged children.

With the increase in diagnoses of children with ADHD, there has been a propensity to rely on medications as a solution to the problem. According to data from the Centers for Disease Control (CDC) in 2007, there are 2.7 million young children who currently take one or more medications for their ADHD diagnosis. The current research shows that children are increasingly being given medications for their symptoms, without
taking into account the effects or consequences that it will have on the children, in particular when it comes to academia, social skills, relationships, and overall mood.

Of course, it is not just about the children. There are many adults out there, parents, educators, and clinicians, who believe that they might have an idea about how to work with the ADHD that the children display symptoms for. Unfortunately, there are adults out there who have not received proper education on what ADHD truly is, and what it does to those affected by it. While parents and educators may believe that they know what is going on with the children affected by ADHD, it is the child who knows what they are going through, and how these experiences might be making their childhood experiences far less enjoyable than children who do not have ADHD.

**Purpose of the Project**

The purpose of this project will be to create a handbook designed for parents and educators, who have been affected in a way by ADHD. This handbook will focus on several different areas of ADHD, such as the impact of medications on a child’s academic achievement, the child’s experience of ADHD, impact on social skills, what effect the child’s ADHD might bring to the family system, and a discussion of the latest research that is being conducted to study ADHD even further. This handbook will also discuss alternative treatments, such as behavioral management, to help a child with ADHD in specific settings, including but not limited to school, home, and the therapist’s office.

The ultimate goal of this handbook will be to provide a renewed understanding of what Attention Deficit Hyperactivity Disorder (ADHD) is, and what the adult can do to help the child(ren) when it comes to medications, academic achievement, social skills and
relationships, and the overall experience that a child goes through when going through a typical day knowing that they have ADHD. By going through the pages of this handbook, parents and teachers alike will receive a renewed understanding about ADHD, and what there is to look when it comes to symptoms, signs, and changes that the child goes through. This is the expected goal for this ADHD Handbook.

**Significance**

The reason why this handbook is being constructed is that, while strides in research on ADHD are being made, some individuals are still lost in the understanding of how children react when given a pill to help suppress activity and enhance attention, how a child’s social relationships might be impaired due to these medications, what implications the ADHD may have on their academic skills, and what the child is experiencing overall. The creation of this handbook can help researchers and proponents of ADHD have a clearer picture, a better understanding of how ADHD affects children, whether it be through the medications that are given to them, the way they act in school or home, or the social relationships they have (or don’t have).

The intended audience for this handbook would be for teachers, parents, researchers, and educators in the field who are dealing with this particular situation, and for the children, who experience it the most out of anybody. When this handbook is finished, the goal is to implement it in schools, camps, clinics, and other locations in order to help others better understand the pros and cons of ADHD, from all sides and not just one. Looking long-term, the goal is to educate those who still question what ADHD is, what it can do, the effect it has on children, and what steps and treatments are most effective in helping children who have such a disorder.
Terminology

**ADHD:** This is the acronym for Attention Deficit Hyperactivity Disorder, a developmental disorder that is characterized by symptoms of inattention and hyperactivity. For purposes of this project, the focus will be on symptoms, diagnostic criteria, and those affected by it, in this case school-aged children.

**Academic:** Anything that is related to education, such as learning, educational skills, and achievement.

**Achievement:** The idea of accomplishment, whether it be academic or personal.

**Adderall:** This is one brand name of amphetamine salts-based medications used to treat ADHD in children.

**Educator:** Anyone who is in the field of education. This can refer to a teacher, administrator, professor, lecturer, student teacher, teaching assistant, or education aide.

**Medications:** Pharmaceutical drugs defined as any chemical substance intended for use in the medical diagnosis, cure treatment, or prevention of a disease. This project will look at several ADHD medications and how they are used.

**Treatment:** A therapeutic technique designed to address a specific problem.

In order to better understand the issue here, it is necessary to review previous studies and research conducted in regard to ADHD. This includes how a child performs academically, the factors involved with medications, the role that teachers and parents play, and the most important critic of all, which is the child who experiences the ADHD every day.
Organization of the Project

The remaining sections of this project will proceed in the following way:

Chapter Two will provide a review of the literature, what patterns are seen, what has been explored, or not explored, and what recommendations are viewed for possible treatment.

Chapter Three will discuss the actual project, its description, and its projected audience and use.

Chapter Four will provide a summary of the project, as well as suggestions for further research not mentioned in Chapter Two.

The Appendix will consist of the ADHD Handbook for parents and educators. It will start with an introduction, then go in detail about ADHD, including definitions, symptoms, experiences, as well as accounts given by teachers, parents, and children.
Chapter Two

Review of the Literature

This chapter will begin with a description of Attention Deficit Hyperactivity Disorder, including symptoms and treatment, the different medications that are prescribed to a child with the disorder, followed by a discussion of the effects that these medications have on children. Different factors will be looked at, including impact on academic achievement, social skills, relationships, and other possible environmental factors. Further along in this chapter, impact of behavior will be looked, in order to see how behavior can be managed in these different settings.

Definition of Attention Deficit-Hyperactivity Disorder

While the content of this handbook will prove beneficial for its recipients, one cannot understand its contents without having a clear idea of what the topic is. There have been numerous definitions given for Attention Deficit-Hyperactivity Disorder in the last several years, yet according to the American Psychiatric Association, Attention Deficit-Hyperactivity Disorder is defined as a persistent pattern of inattention and / or hyperactivity-impulsivity that is more frequently displayed and more severe than is typically observed in individuals at a comparable level of attention (APA, 2000). The main aspects of this disorder revolve around three main criteria: inattention, hyperactivity, and impulsivity. For children with the disorder, different areas can be affected, in more ways than one.

DSM-IV-TR Diagnostic Criteria for ADHD

For purposes of this paper, the acronym ADHD will refer to Attention Deficit-Hyperactivity Disorder.
Like every diagnosis, certain criteria are to be met in order to consider the possibility of a child having ADHD, or symptoms thereof. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR), the following criteria are necessary in order to diagnosis a child with ADHD. Either:

-six (or more) of the behavioral symptoms associated with inattention have persisted for at least a period of six months, to a degree that is maladaptive and inconsistent with developmental level

OR

-six (or more) of the behavioral symptoms associated with hyperactivity-impulsivity have persisted for at least a period of six months, to a degree that is maladaptive and inconsistent with developmental (APA, 2000, p. 92)

Along with these symptoms, some impairment may exist in two or more settings, such as home and school, as well as clear evidence of clinically significant impairment in social, academic, or occupational functioning. In order for an ADHD diagnosis to be finalized, the symptoms that are present do not occur exclusively during the course of other mental disorders, such as Pervasive Developmental Disorder (PDD), Schizophrenia, or by another mood disorder (APA, 2000, p. 93). It should be noted that there are multiple criteria needed in order to be considered as an ADHD diagnosis, including symptoms and how long they have affected the child (2000).

**ADHD Symptoms In Detail**

ADHD is usually characterized by three major symptoms, as mentioned in the diagnostic criteria in the DSM-IV-TR: inattention, hyperactivity, and impulsivity.
Inattention can be defined as a failure to pay close attention to details, work is usually messy or carelessly performed, and tasks are rarely completed, and can lead to certain consequences when not performed. Symptoms of inattention can be seen in the academic, social, and home settings. One’s work tends to be messy and show difficulty in sustaining attention or keeping up with certain tasks, due to frequent shifts of attention from one activity to another (APA, 2000 p. 86).

Hyperactivity is classified as trouble keeping physically still, and may be present in forms that cannot be seen by the one who is observing the child. Behaviors that are displayed through hyperactivity may include fidgetiness, tapping of fingers and/or toes, excessive talking, and nail biting. Sometimes hyperactivity may be absent altogether, especially in girls (Mate, 1999, p. 15).

A third symptom for ADHD can be characterized through impulsivity, in which a child may have trouble with restraint from interrupting others, and may act or speak impulsively to something that does not make sense. This symptom can also be viewed as an impulse control problem (1999).

Impulsivity has often been linked to academic attainment, and whether or not there may be an advantage in the symptom of impulsivity. Studies have shown that symptoms of impulsivity have a negative link to how a student does in reading and mathematics alone (Tymms & Merrell, 2011). All of this can relate to the idea of behavioral inhibition, which enables the processing of information by the executive functions to occur by preventing individuals from reacting to stimuli too rapidly, and such intuition in children with ADHD can be impaired, leading to impaired executive functions, in turn causing a child to appear hyperactive and impulsive (2011).
Psychopharmacological Treatments Currently Prescribed for ADHD

In today’s world, a more traditional approach in treating a mental disorder, such as ADHD, has been through means of psychopharmacology, or medications. There are currently 3% to 6% of school-aged children who have been diagnosed with ADHD, and around 2 million of them are typically prescribed a drug in order to help treat their ADHD symptoms (Austin, 2003). Drug treatments are prescribed in many ways, and what is viewed as best for the child. In some cases, family members and teachers are informed of the plan for treatment and what they can do in order to play a part in making it a success (2003). Many of these drug treatments may sound familiar, in that it has been read about and heard about in several studies. A few common medications that we see prescribed to children with ADHD are Adderall, Methylphenidate (Ritalin), and Strattera. Each have their own unique properties, but share a common goal: to suppress the behaviors that are seen as diagnostic criteria for Attention Deficit Hyperactivity Disorder.

*Adderall (Mixed Salts Amphetamine)*

One of the common drug treatments prescribed for ADHD in the last few decades has been Adderall. The drug has proven to be effective in treating high levels of inattention, hyperactivity-impulsivity, as well as aggression (Faraone & Biederman, 2002). Adderall has been used to help stimulate the central nervous system, and can affect chemicals in the brain that contribute to problems with impulsivity and hyperactivity.

While Adderall helps to alleviate impulse control problems and hyperactive behaviors, there are side effects to it as well, just like any other drug treatment. Side effects of Adderall include insomnia, nervousness and fast heart beat, irregular appetite,
and can be more severe in some cases, to a point where chest pain and seizures may occur in the child who is taking it (http://psychcentral.com/lib/2007/treatment-for-attention-deficit-disorder-adhd/), in which case it would be necessary to contact a doctor. The drug is prescribed for children over the age of 3 years.

*Ritalin (Methylphenidate)*

Aside from Adderall, a more commonly used drug to treat ADHD is Ritalin. The drug itself comes in three different forms:

- Ritalin (methylphenidate)
- Ritalin SR (extended release)
- Ritalin LA (long acting)

All three are prescribed to children over the age of 6 years. (http://psychcentral.com/lib/2007/treatment-for-attention-deficit-disorder-adhd/)

Like Adderall, Ritalin is used for the treatment of ADHD to suppress symptoms such as lack of impulse control and hyperactivity. Like Adderall, Ritalin has common side effects, such as insomnia and reduced appetite, as well as the severe side effects that would require the need for a doctor to step in. (http://forums.psychcentral.com/meds/ritalin.html).

Age has played a role in whether or not younger aged children should be prescribed the drug, as it is usually prescribed to children age 6 and older. Some have begun to question the ethics of whether or not it is okay for preschool children with ADHD to get a prescription for Ritalin, in that parents would be leery about their 3-year old daughter or 5-year old son being prescribed a drug such as Ritalin (Leo, 2002). Some researchers would argue that the question of whether or not preschool children should be
prescribed such a drug is the most important moral question that the scientific community would have to face in the next decade (2002).

*Strattera (Atomextine)*

A third medication that has been prescribed to children with ADHD symptoms is Strattera, or Atomextine. Whereas Adderall and Ritalin are used for numerous treatment other than ADHD, Strattera was developed to be used specifically for the treatment of ADHD symptoms. Like Adderall, Ritalin can be prescribed to children starting at 6 years of age ([http://psychcentral.com/lib/2007/treatment-for-attention-deficit-disorder-adhd/](http://psychcentral.com/lib/2007/treatment-for-attention-deficit-disorder-adhd/)).

The differences between these three drugs are the possible side effects. With Strattera, possible side effects tend to include nausea or vomiting, constipation, dry mouth, drowsiness, and problems with sleeping. Some of the severe side effects associated with Strattera have been unreported effects in certain cases ([http://forums.psychcentral.com/meds/strattera.html](http://forums.psychcentral.com/meds/strattera.html)).

Although there are multiple different psychopharmacological drug treatments out there for ADHD, the medicines discussed earlier tend to have more of a commonality in usage, but can vary from case to case.

**Effects Of Medical Treatments on Children with ADHD**

Attention Deficit Hyperactivity Disorder is one of the most commonly diagnosed childhood psychiatric disorders in the United States, functionally impairing 3% to 5% of the school-age population (Kollins, 2004). In order to address the symptoms that children experience with ADHD, 85% to 95% of those with an ADHD diagnosis receive pharmacological treatment (2004), leading parents to look at whatever options are available for their children. It is important to look at how pharmacological treatments,
like the ones discussed earlier, impact a child (or children) with ADHD, through an academic, social, and personal perspective.

**Impact Within the Academic Setting**

Children who have ADHD can show symptoms that affect their learning and academic achievement as early as preschool (Short, Manos, & Findling, 2004), and although diagnosis of mental health disorders in young childhood can prove problematic, it has been shown that there is a critical need for effective treatment at such an early age (2004). At an age as early as 3 years old, levels of symptom severity can be much higher, in which children showing ADHD symptoms are more impaired than children who show no symptoms at all (2004). Preschool-age children who have been prescribed drugs such as Ritalin or Adderall have shown fewer symptoms of ADHD, as observed by their parents (2004), with a slight improvement in behavior.

In studies that have been conducted over the past several years, the effects of medications have been reviewed and discussed when looking at how academic achievement in a child with ADHD can be affected. According to Manos, Short, and Findling (1999), a common problem that has arisen within the discussion of ADHD has been whether or not psycho-stimulants have become the norm for treatment, with one psycho-stimulant being Methylphenidate. A study conducted on forty-two school children showed that those who were on a drug like Methylphenidate, or even Adderall, showed a reduction in behavioral symptoms versus those who received a placebo (1999). Despite this change, it is important to look at how these reductions look over a period of time.
When it comes to the academic setting, several areas of research related to ADHD have been conducted, an example such as what is occurring in a specific classroom setting. Swanson et al. (1998) examined how the effects of Adderall would change over a period of time throughout the day, using a subject pool of 30 children with ADHD symptoms present, and four doses of the drug ranging from 5 mg to 20 mg, and were analyzed over a period of seven weeks. The purpose of this study was not to compare Adderall with Methylphenidate, as done in an aforementioned study, but rather look at it as a positive control condition over the course of time (1998). Like any study conducted, limitations were present, mainly due to the controlled setting (laboratory classroom on a Saturday), which put its ecological validity into question (1998).

When it comes to children with ADHD and medications, one area that has been recently analyzed is the amount of medication that a child may have to take during the day, whether it be in the morning, when they are just getting up and heading to school, or at night, when they are ready to go to bed. Pelham et al. (1999) compared the use of Adderall and Methylphenidate at different times throughout the day (morning only, morning/late afternoon vs. morning only, twice daily, and three times daily), in order to assess for any discernable side effects occurring during evening hours (1999).

Over a course of 8 weeks throughout the summer, 21 children participated in this research study, with random doses of the two drugs administered to them, as well as a placebo. It was discovered that doses administered throughout the day would produce equivalent behavioral effects throughout an entire school day, with possible significant changes observed in the evening hours (1999). One dose of Adderall administered in the morning would help suppress side effects throughout the entire day, instead of morning
does of Methylphenidate, which would not have taken immediate effect to suppress symptoms of ADHD (1999).

While Adderall, Ritalin, and Methylphenidate are common in treating children with ADHD, Strattera (Atomoxetine) is used to a lesser degree. Faraone, Wigal, and Hodgkins (2007) compared Strattera and Adderall XR over a three month period, looking at observed and forecasted efficacy based off of mixed amphetamine salts taken by children with ADHD (2007). The results differed from an earlier study by the researchers, including a 3-week trial in which both of these drugs showed significant efficacy in reducing inattentive symptoms, increasing academic performance, and improving overall clinical functioning in these children. With the later study, Faraone et al. found that after a course of 8 weeks, efficacy of both groups would deteriorate, more so for Strattera than for Adderall XR (2007).

When looking at all of the stimulant medications that are prescribed to children with ADHD, some wonder just how they impact cognitive performance, in addition to what happens with academic achievement. While stimulant medications are considered to be a treatment of choice for targeting the core symptoms of ADHD, whether the effects seen in academic performance translate to positive changes may be seen less clearly, due to an insufficient amount of research in this area (Gimpel et al., 2005). Some studies have been conducted to analyze this, through ways of IQ testing, such as the Wechsler Intelligence Scale for Children, 3rd Edition (WISC-III), and the Attention Deficit Disorder Evaluation Scale, Home Version, 2nd Edition (ADDES-2). When administered to children who have been given stimulant medication for ADHD, a significant increase in IQ score is seen as likely, whereas in children with no stimulant medication for ADHD
is viewed as unlikely to occur (2005). Despite changes in a child’s IQ score, test-taking behaviors could easily interfere with the outcome of the score, and are something to take into consideration when reviewing the research (2005).

**Impact Within the Social Setting**

The impact of ADHD on children can vary in many ways, and an additional aspect of a child’s life that can be impacted by their symptoms relates to social relationships (i.e. friends, family, etc.). While it is important to note the positives that these treatments can have on the children who take them, it is important to see how a child’s social environment can be impacted as well. Children with ADHD tend to experience major difficulties in social relationships at any given point in time (McConaughy, Volpe, Antshel, Gordon, & Eiraldi, 2011). Over the course of the last several years to past decades, there has been an increase of measures used to measure social impairments of children with an ADHD diagnosis, such as positive and negative peer ratings, parent/teacher ratings, as well as measure of children’s self control (2011). In general, based on these new tools and methods, children with ADHD tend to be more rejected by their peers than children without ADHD, but can vary due to the level of rejection that is being shown (2011). Additional studies have also shown that children with ADHD are more likely than children without ADHD to be the victims of bullying, and in turn will start to bully others based on that notion, as well as have difficulty making and/or keeping friends, and show lower levels of social competence (2011).

**The Child’s Experience With Attention Deficit Hyperactivity Disorder**

As noted earlier, ADHD is one of the most commonly diagnosed childhood psychiatric disorders in the United States, functionally impairing 3% to 5% of the school-
age population (Kollins, 2004). While it may be difficult for adults (teachers, parents, etc.) to grasp that idea of their students or children having ADHD, it is important to understand what the child with ADHD experiences, in that they are the ones who are dealing with all of the symptoms, not the adults. The way that a child experiences ADHD can be powerful, when compared to how teachers and/or parents experience ADHD.

When compared to children who do not have ADHD, children who experience ADHD tend to have more difficulties in cognitive, family, school, and psychosocial functioning (Sciberras, Efron, & Iser, 2011). Many researchers have put all of these aspects together to describe Quality of Life (QoL). When looking at it from a research aspect, the goal is to improve quality of life for children with ADHD at home, school, and with friends, as a means of treatment and management (2011). Previous studies that have been conducted on quality of life have shown that there is discordance between parental and children’s views on the severity of symptoms and treatment outcomes for children with ADHD. While this research found differences in QoL between parents and children, there was no difference in ADHD or oppositional symptoms when it came to reporting QoL issues between child and parent (2011).

The Role of the Teacher

When a child is experiencing life with ADHD, all areas are looked at, home, school, medical, and social. With the school setting, the influence of teachers may prove to be a huge factor in how the ADHD child goes through life and school.

Sherman, Rasmussen, and Baydala (2008) felt that not enough is understood regarding the involvement and influence of teachers teaching children with ADHD,
including their attitudes and beliefs about ADHD and treatment options, as well as how this can influence a student’s behavioral and learning outcomes. These researchers reviewed relevant literature through different databases, focusing on teacher factors as the predictors, and student outcomes (i.e. academic achievement, social and leadership skills) as the independent variables (2008). The outcome indicated that teacher factors can have profound impacts on various outcome measures, such as gesture use in academic puzzles and teachers’ opinions about specific treatment options (2008). In addition, the researchers found that teachers who show patience, knowledge of intervention techniques, an ability to collaborate with an interdisciplinary team, and a positive attitude towards children with ADHD or other special needs can have a positive impact on student success (2008).

Teachers do what they can in regard to serving the needs of their students, especially those who are diagnosed with ADHD. Even though teachers may see this as something stressful, teachers do what they can to keep themselves updated on the knowledge about childhood disorders, how to incorporate the knowledge into their teaching style, and how to work with the child diagnosed with ADHD.

Teachers are often the first to recognize and recommend that children who exhibit behavioral problems receive a comprehensive assessment (Vereb & DiPerna, 2004). In a way, the teacher is given the task of implementing an intervention for the classroom, but can refuse such treatment if there is a disagreement over said treatment (2004). Because of a teacher’s willingness to implement an intervention, it is important that there be a development in understanding the relationship between teachers’ knowledge of ADHD, its treatment, and how to succeed in implementing the treatment (2004).
The Role of the Parent

For parents of children with ADHD, it can be tough to comprehend the situation that their children are in, whether it be the effects of medications they are taking, the challenges faced in focusing on learning, and/or the possibilities of getting into trouble or ostracized at school.

Educators may feel that it can be difficult to handle such situations, but in retrospect, it is the parents who are the ones that know what goes on with their children, and know how difficult it can be to handle a situation if they’re child or children deals with a diagnosis of ADHD. Parents are often involved in supporting and helping their children lead satisfying and productive lives on a continuous basis, and do whatever it takes to ensure that their children can still have a normal life, despite knowing that ADHD is somehow now part of the family dynamic.

Alternative Treatments/Interventions for Attention Deficit Hyperactivity Disorder

Whenever a child is with their mom and dad at the doctor’s office, there may be some fear, anxiety, and worries about what will happen once they go into the patient room. Whenever a diagnosis of ADHD is given by the doctor, the parents may be the most scared out of everyone in the room, in that questions may pop up: “Why?” “Why did this have to happen to my son/daughter?” “What are we going to do?” These are just a few examples of questions that parents may ask themselves, given the situation that is occurring. What doctors will usually do is give a treatment involving a prescription drug, like Adderall or Ritalin, and tell the parents that their child has to take this drug X amount of times a day. For parent and child, it may be a difficult time, one of questions and one of what to do next.
Even if a child is prescribed a drug to help put off the symptoms of ADHD, there are several different forms of alternative interventions that can be used in lieu of medical intervention, as a way to put medicine aside for the moment, or to try something completely different altogether.

Students who have attention and behavior problems will often times experience difficulties in succeeding with their academic work (Axelrod, Zhe, Haugen, & Klein, 2009). One method that has been researched on has been self-management of on-task behavior, including homework, which can be defined as tasks that teachers assign students outside of school (2009). The use of homework can help kids develop self-discipline and organizational skills, and provide kids with a repetition of what they learned during the school day, although it has been viewed as problematic for students with attention and behavioral problems (2009).

With on-task behaviors, there has been a use of self-regulation interventions that teach students how to maintain control of their own behavior. These include self-monitoring and self-management, which have both been linked to improvements in on-task academic behaviors as well as disruptive behavior in the classroom (2009). Over the course of time, self-monitoring interventions may produce positive results without the intricacy necessary to produce such behavior, and that increased on-task behavior during homework coincided with an increased submission of homework assignments on time (2009).

Not only has alternative treatment options for ADHD been studied here in the United States, but other countries around the world have had their share in the research as well. In Australia, parents of children with ADHD look at whether their children should
medicate or not medicate, and if alternative intervention is the right course for their child or children. What has been seen is that parents in parts of Australia are reliant in their own personal blend of experiential and acquired knowledge when it comes to ADHD (Taylor, O’Donoghue, & Houghton, 2006). This knowledge is based on the observation of social views in their communities as well as reported findings on a national and international scale (2006).

When it comes to looking at alternative treatments for ADHD, proponents of alternative treatment for ADHD are equally as assertive in their condemnation of what they perceive to be the over-prescription of stimulant medication in young children and reluctance of the medical community to consider any form of treatment that is not a pharmacological option (2006). Depending on how a parent decides, two stages will usually occur in this process: assume responsibility for titration of their child’s medication, with a sole investment in monitoring progress, and to educate others, in that they are proactive in dispelling any ignorance that surrounds ADHD and use of medication as the true treatment for ADHD (2006).

As knowledge about childhood disorders continues to grow, so do the methods to approach alternative treatments. One area that has been growing is the Evidence-Based approach to treatment. Over the past couple of decades, increased attention has focused on the identification of evidence-based psychosocial treatment (Pelham Jr. & Fabiano, 2008). Some of these new forms of treatment include Behavioral Parent Training (BPT), Behavior Contingency Management (BCM), and looking at different classroom interventions to see if they were viewed as possible treatments (2008). Such interventions are meant to be implemented in a given setting, such as the home, school, or
within a child’s peer network, to have an effect in those settings, and that if there is
change to specific foci in one setting, then it would have to changed in the subsequent
settings as well (2008).

Of the settings that have been mentioned, one that can have a greater impact on
children with ADHD is at school, in the classroom. Academically, children with ADHD
are more likely to have poorer grades, lower scores on tests, and an increased use of
school-based services (DuPaul, Weyandt, & Janusts, 2011). A way to help these children
improve in their academics has been through the use of behavioral interventions, which
include both antecedent-based and consequence-based strategies, and involve
modifications to the environment around them to address the impairment directly (2011).
Antecedent-based strategies are geared towards events that precede and may trigger a
specific behavior to occur. Some strategies for the classroom can include establishment
of classroom rules, modifying length and/or content of assignments by reducing task
demands, and to provide a task choice when given class assignments (2011).
Consequence-based strategies involve manipulating environmental events following a
specific behavior in order to alter that behavior’s frequency. Some of these strategies for
the classroom include self-management interventions, contingent positive reinforcement,

While studies have been done as to how to approach ADHD in children in the
school and home setting, there is one area that should be considered, and that is for
children with ADHD who are in residential care. According to the Child Welfare League
of America, there are approximately 200,000 children and youth in residential care
(Casey, et al. 2008). Studies that have been conducted on children who are in residential
care, as sparse as they have been, report that 30% of children in residential have a
disability diagnosis (such as neurological functioning in regard to ADHD), and that
children in residential care with a disability diagnosis are at a higher risk of presenting
with greater academic deficits, as well as elevated level of social and emotional problems
(2008).

As for reasons why children with ADHD are placed in residential care, several
factors come into play, such as stress within the family system (i.e. trouble at home,
fight with parents and/or siblings), which can lead to higher levels of depression among
family members, mothers in particular (2008). It is important to keep this population in
mind when studying ADHD, in that there has not been much research done in the
residential care environment.

**Synthesis of Literature Review**

As discussed in this literature review, Attention Deficit Hyperactivity Disorder
(ADHD) impacts a child in many ways, whether it be in school, at home, in their
respective social circles (friendships), or with other adults. There are different
medications out there in which children can take to suppress the symptoms of ADHD,
and while those do have a positive impact, they are not without their side effects and/or
negative impacts. Areas of a child’s life such as school and social relationships can be
affected by the symptoms of ADHD, and it has been shown what occurs, how it occurs,
and what can be done to allow for a child with ADHD to live his/her life without having
to feel different.

While many of us look at ADHD in different aspects, figuring out which
symptoms are more impactful and what treatment works better, it is the child who has the
experience with the disorder, in that they live with ADHD every day, from the moment they wake up, up until the moment they wash up and get ready for bed later. This is where the parents and teachers come into the situation, in order to understand what their child/student is dealing with, and in the end, what they can do to help.

It is no surprise that pharmacological treatment has had its share of criticism over the years, given all of the side effects that are listed on the bottle. It is important to explore alternative solutions outside of pharmacological treatment, in that there may be a more formidable outcome. Whether it is in the school, at home, or even in an environment like residential care, parents and teachers will look at all possible avenues for children who have symptoms of ADHD. The idea of choices for treating a child with ADHD is becoming more apparent these days for parents and other adults who have experience in dealing with ADHD.
Chapter Three

Process in Developing Project

A handbook on Attention Deficit-Hyperactivity Disorder will be put together as a resource for parents, teachers, and other educators. In this handbook, there will be a definition about ADHD, some facts about this disorder, impact that ADHD has on children in the home, school, and therapeutic setting, how medications play a role, treatment and intervention strategies, and what parents and educators can do for more awareness of ADHD.

Development of Project

This ADHD handbook was developed in order to provide an improved awareness about the disorder for parents, teachers, and other educators, in regard to children who are affected by ADHD. Throughout this handbook, recent literature will be mentioned pertaining to each section, in order to receive the most current up to date knowledge about ADHD. It will serve as an excellent resource for parents and educators who are having trouble understanding the knowledge of the disorder and/or want to have a source to refer to if they have been affected by ADHD, such as having children with the disorder. This handbook is not meant to serve as a proper solution, but rather, a guide to understand what children with ADHD go through each day, and how one can help in that particular situation.

Intended Audience

This handbook will serve as a knowledge tool for parents and educators, such as teachers, para-educators, and school principals, to better understand what ADHD is, how it affects children, what solutions there are for the children, and what the adults can do in
this situation. For parents, it can be viewed as a means for better understanding, in that some parents of children with an ADHD diagnosis may not understand the disorder as much, and could have judgmental thoughts and ideas about the disorder. This handbook will serve as a means to ease frustration of parents, and to help them understand everything in a better light.

When this handbook is complete, the goal is for copies to be placed in elementary and middle schools where parents can have easy accessibility to them, and to learn more about this disorder if a diagnosis is made at that time. It will allow school staff and faculty to have a resource when parents do not know what to do in the heat of the moment (in some situations, parents may be uncomfortable asking school staff questions about something clinical or personal).

*Environment and Equipment*

Due to the content of this handbook, the preferred environment will be schools, camps, and in the homes of families who are dealing with ADHD. Aside from the handbook itself, there is no further equipment needed nor will it be necessary.

*Project Outline*

This handbook will include the following:

1. Overview of ADHD, such as diagnostic criteria listed in DSM IV-TR
2. Identifying ADHD symptoms and behaviors
3. Implications of ADHD symptoms in specific settings, such as school, home, therapeutic, and social
4. Discussion of medications used for treatment of ADHD, including positive and negative aspects of specific ones
5. Alternative interventions for treatment of ADHD other than medications; what they are, and how they can work within the different settings mentioned in section 3 above
6. Resources for parents and educators in order to obtain more information on ADHD and alternative interventions
Chapter Four

Conclusion

Summary

The purpose in developing this project was to create a handbook that focused on identifying Attention Deficit Hyperactivity Disorder, its diagnostic criteria, the treatments that are implemented to treat the symptoms, and resources to seek further information beyond what is discussed in the handbook itself. The intended audience was meant for parents of children with ADHD, teachers and educators who teach those particular students, and researchers who continue to work day in and day out to learn more about ADHD, its effects, and how the effects of different treatments (medications and behavioral therapy) play a role in defining how children with ADHD symptoms will act around family, teachers, and their peers.

It is well documented that Attention Deficit Disorder is one of the most commonly diagnosed psychiatric disorders in the United States, which functionally impairs around 3-5% of the school-aged population (Kollins, 2004). Some of the adults involved in the lives of those children may not know all of the information that is necessary when looking at ADHD, its symptoms, and what treatment options are available. This is where the facts and diagnostic criteria come into play here. Knowing just exactly what ADHD symptoms are can help alleviate a parent’s fear about the diagnosis.

With ADHD, there are several treatment options, but the main option that we continue to see today is the prescription of ADHD medications. Around 2 million children diagnosed with ADHD are prescribed a drug in order to treat their symptoms.
There are several different medications out there, like Adderall, Ritalin, and Strattera, which are prescribed to children on a daily basis. While these medications may help decrease symptoms of ADHD, these medications are not without their side effects, with some reaching a severe potential that emergency care may be necessary.

For every mental disorder that has a primary form of treatment, there are always alternatives that can be taken into consideration, especially if parents are hesitant about letting their children take medications for their symptoms. There are several options to consider for treatment of ADHD symptoms, whether it is part of behavioral modification techniques or self-monitoring/management. When looking at the big picture, classroom interventions can be viewed as a viable option to look at before making that big decision as to whether or not medications are the answer to treating a child’s ADHD symptoms. Taking everything into consideration, the above mentioned is what would become the actual handbook for parents, educators, and researchers, in order to have an informational resource for consideration.

**Discussion**

When the idea for a graduate project came up, it was originally a project that focused on ADHD medications and their impact, both positive and negative, on academic achievement. I began to formulate this idea in my EPC 602 Research Principles course, and drafted an introduction and review of literature based on this original idea. After having it read by my professor, the overall impression was that the topic was too broad, unfocused, and kept jumping all over the place in regard to the APA formatting. This would bring things down for a few weeks, but that allowed for time to scrap the original topic and come up with something more interesting.
Some time later, a new topic was born. The new project would be a handbook for parents, educators, and researchers (originally clinicians) on Attention Deficit Hyperactivity Disorder (ADHD), discussing what it is, diagnostic criteria, symptoms, a review of the pharmacological treatments currently being used, a review of alternative treatments to medications, and some resources to turn to should more information be necessary for attainment. The idea made more sense than the original, and was easily achievable with the time limit that was in place for graduation.

The creation of this project, including the research, formulation of a committee, countless pieces of paper being wasted for journal articles, hours of sleep lost, and all of the typing, took around 9-10 months to complete. When a colleague of mine heard about this project, it was mentioned that this is not original, in that it has been done several times. My response to that claim was that sometimes, it doesn’t hurt to see things from another additional perspective, another voice on ADHD.

**Future Work and Research**

The goal once this is all said and done is for copies of this handbook to be published, and put in schools, doctors’ offices, mental health agencies, day camps, and county health agencies. It may be a while before that can happen, but my hope is that with this handbook, it can be done.

Perhaps down the road, this handbook can be used in workshops and classes on how to adjust if a child in the family has been diagnosed with ADHD. The message that I want to spread with this ADHD handbook is this: it’s okay, it’s no one’s fault, and there are ways to get through this difficult process (child being diagnosed with ADHD). That is the message in which I hope this handbook will promote down the road.
Even though this handbook is complete, there is still research that has not been fulfilled. Several questions still remain, such as these:

- How long does a child need to be on medications for their ADHD symptoms?
- What happens when more than one medication is prescribed to a child?
- What is the importance of alternative treatments in decision-making for parents?
- Which medications have the greatest side effects for children?
- What other forms of alternative treatments can alleviate ADHD symptoms

These are just a few things to take into consideration when looking at the future of ADHD research, and what is important for treating children with their ADHD symptoms, including how they live life knowing that ADHD is part of their everyday routine.
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http://forums.psychcentral.com/meds/strattera.html


APPENDIX A

Attention Deficit-Hyperactivity Disorder: Facts, Treatment, and Alternative Resources

A Handbook for Parents, Educators, and Researchers

By

Daniel J. Titcher

December 2012
What is ADHD?

Attention Deficit-Hyperactivity Disorder, commonly known by its acronym ADHD, can be defined as a persistent pattern of inattention and/or hyperactivity/impulsivity that is more frequently displayed and more severe then is typically observed in individuals at a comparable level of development. Like many disorders, there are several different criteria that are to be met before a final diagnosis can be given:

- Some symptoms of hyperactivity/impulsivity, as well as inattention, have been present prior to the age of 7 years, although symptoms may not be diagnosed for a time well after childhood.
- Some impairment from symptoms are present in different settings, such as the school and home.
- Clear evidence of interference with academic and social functioning is necessary for an ADHD diagnosis to be made.

When looking at the overall picture, 3-5% of the school-aged population in the United States is functionally impaired with Attention Deficit Hyperactivity Disorder. In recent times, parents have reported that 5.4 million children ages 4-17 have been diagnosed with the disorder.

For many parents, it can be difficult to hear that their child has been given a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD). Questions may come up, blame may be assessed, and acceptance of this may be tough for the parents to handle. Even more important is what the child with the diagnosis might be thinking at that exact moment, as to how life may have changed instantly.

The purpose of this handbook is to do the following:

- Educate parents, teachers, and educators on Attention Deficit Hyperactivity Disorder (ADHD), including symptoms, diagnostic criteria, and what to watch for when it comes to warning signs/red flags.
- Identify the major symptoms and behaviors of ADHD, what they are, and how they play a role in making a final diagnosis.
• Implications of ADHD symptoms in major environmental settings, such as at school, home, and social settings
• Taking a look at the pharmacological treatments commonly used to treat ADHD, and discussing the positive, as well as negative, impacts that they have on a child with ADHD
• A look at alternative treatments to ADHD; what they are, how they work, why these treatments are considered over medications, and how they can be used in the different settings as mentioned above
• Additional resources for parents and educators on ADHD (i.e. where to go for more information, locations), and final thoughts

Diagnostic Criteria: Attention Deficit Hyperactivity Disorder

Currently, the exact cause of ADHD is unknown. However, theories have shown that several factors may play a role, such as biological/genetic factors, chemical imbalances in the brain, and influences of the environment. In order for a child to be given a diagnosis of Attention Deficit Hyperactivity Disorder, there are three major symptoms that are looked at experienced by children: Inattention, Hyperactivity, and Impulsivity.

Symptoms of ADHD

Inattention
• Fails to pay close attention to details, makes careless mistakes in schoolwork or other activities
• Often has difficulty sustaining attention in tasks or activities
• Does not listen when directly spoken to
• Does not follow through on instructions and fails to finish schoolwork, chores, or other assignments
• Difficulty organizing tasks and activities
• Often will be easily distracted
• Often forgetful in daily activities, such as homework assignments
• Will often avoid, dislike, or become disengaged in tasks that require sustained mental effort, such as homework or schoolwork

Hyperactivity
• Often fidgets with hands or feet or squirms in seat
• Often leaves seat in classroom or in other situations in which remaining seated is expected
• Often runs or climbs excessively in situations that are deemed inappropriate
• Often has difficulty playing or engaging in quiet leisure activities
• Is often “on the go” or often acts as if “driven by a motor”
• Excessive talking

**Impulsivity**
• Blurs out answers before questions have been finished
• Difficulty awaiting turn
• May interrupt or intrude on others, like blurting into another conversation or activity

These symptoms represent **Criteria A** for ADHD diagnosis. Usually, a diagnosis can be made if either: (A1) six or more of the symptoms of **inattention** have been present for at least a 6 month period, or (A2) six or more of the symptoms of **hyperactivity-impulsivity** have been present for at least a 6 month period.

**Criteria B:** Some hyperactive-impulsive or inattentive symptoms that caused impairment presented themselves before 7 years of age.

**Criteria C:** Some impairment from the symptoms is present in two or more settings (at school and at home, for example).

**Criteria D:** Clear evidence of significant impairment in social and academic functioning is required.

**Criteria E:** The symptoms listed in Criteria A do not occur exclusively with the course of another disorder, such as Pervasive Developmental Disorder (PDD), Schizophrenia, or other psychotic disorder, and are not better accounted for by another mental disorder (e.g. mood disorder, anxiety disorder)

When given a diagnosis, it can be either one of three types of ADHD:

**Attention Deficit Hyperactivity Disorder, Combined Type** (both Criteria A1 and A2 are met for the past 6 months)

**Attention Deficit Hyperactivity Disorder, Predominantly Inattentive Type** (if Criterion A1 is met but Criterion A2 is not met for the past 6 months)

**Attention Deficit Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type** (if Criterion A2 is met but Criterion A1 is not met for the past 6 months)

The above-mentioned information is the criteria that are used to give a final diagnosis for Attention Deficit Hyperactive Disorder (ADHD).
Implications of ADHD Symptoms in Major Environmental Settings

Like any disorder that someone has been diagnosed with, Attention Deficit Hyperactivity Disorder is not without its own implications and impacts on children. In children, there is a tendency to see the impact of ADHD symptoms within two distinct settings: in the school setting and at home. In addition to these settings, a child’s social functioning may be impacted as well. Here is a look at some of the implications of these symptoms within these settings:

**Implications within the School Setting**

- Failure to pay attention in classes
- Low academic performance
- Inability to complete tasks on time, such as homework and class projects
- May blurt out responses instead of raising hand to respond
- Can get into trouble more often than fellow peers who do not have ADHD
- Increase in parent-teacher conferences
- May have unwillingness to learn new things
- Talkative in class

It is important to note that all of these impacts depend on the age of the child, as well as how long they have had an ADHD diagnosis.

**Implications within the Home and Family**

While different situations can occur with a child who has ADHD in the school, it can also have an effect on a child’s life in the home, as well as in the family system/dynamics. A child with ADHD may disobey their parents when it comes to objectives, such as chores or doing homework. There can be a possibility for strained relationships between child and other family members. A child with ADHD can get into trouble more at home just as they may get into trouble at school. They may not want to listen to what family members have to say to them. A child who has ADHD may feel left...
out by their family because of their behavior, may feel alone at times, and may not have someone to turn to in order to talk about things.

**Implications with Social Skills**

Another piece of this to look at is peer relationships when it comes to ADHD. For a child who is diagnosed with ADHD, there may be something like the following that can/will occur:

- Little to no friends
- Fights with other children
- Feelings of loneliness
- May intrude on other children’s conversations, activities, games, etc.
- Can have difficulties making new friends (or keeping current friends)

These are just some of the implications of ADHD symptoms that can be seen within school, home, and social environments. While every case may be different, this can be viewed as some examples of what children with ADHD tend to face while they are at school, home, and/or with their fellow peers.

**Common Medications Used in Treating ADHD Symptoms**

Many parents question the idea of what to do when they find out that their child has been diagnosed with Attention Deficit Hyperactivity Disorder. This section gives a review of some of the more commonly used medications to treat ADHD symptoms, as well as a description of a few of these medications. Here is a list of some of the more commonly used treatments:

- Adderall (extended release)
- Ritalin (extended release and long acting)
- Strattera (atomextine)
- Focalin (extended release)
- Concerta (long acting)

*Adderall*
Adderall is a commonly used treatment for ADHD symptoms in children ages 3 and older. Recent research has shown that Adderall is proven to work against symptoms of inattention, hyperactivity, and impulsivity, as well as acts of aggression. Adderall is also a Central Nervous Stimulant, which can affect chemicals in the brain that have an impact on impulsive and hyperactive symptoms. Side effects of this drug include insomnia, irregular heart beat, nervousness, and irregular appetite, as well as more severe symptoms like chest pain.

*Ritalin*

Like Adderall, Ritalin is another commonly used medication to treat symptoms of ADHD. The objective with Ritalin is to suppress the symptoms of inattention and hyperactivity/impulsivity. Side effects of Ritalin typically mirror those of Adderall, and doctors should be contacted should severe symptoms begin to appear. Ritalin will usually be prescribed to children ages 6 and older, a difference from Adderall, where it can be prescribed beginning at age 3.

*Strattera*

While Adderall and Ritalin focus on suppressing more than just ADHD symptoms, Strattera was designed to work specifically against symptoms of ADHD. Prescriptions can start at age 6, just like Ritalin. One of the major differences with Strattera tends to be the side effects, which can include nausea/vomiting, dry mouth, constipation, drowsiness, and sleep problems. In some cases, severe side effects have been reported.

*Impact of Medications*
The use of medications for treatment of ADHD can have different effects on children. Some of these effects tend to include the following:

- Decrease in impulsive behavior
- Increase in attention
- Improved academic performance
- Increased focus
- Less symptoms of hyperactivity

While these effects may prove beneficial for the child, it is important to look at other side effects that may come up, which vary from medication to medication.

**Alternative Treatments Used For ADHD**

Different medications used to alleviate symptoms of ADHD are just one treatment option that can be considered. Some parents and teachers worry about the long-term effects of medications like Adderall and Ritalin, and may want to see what other treatment methods can be used, in a way that if unsuccessful, then pharmacological treatment can be considered the most reasonable option. When we hear alternative treatments, we tend to think of them like this:

- Self-management of on-task behavior
- Behavioral Parent Training (BPT)
- Behavior Contingency Plan (BCP)
- Interventions within the classroom setting

*Self-management of On-Task Behavior*

This intervention focuses on the idea that teachers will give their students who have ADHD symptoms tasks to do outside of school. Doing so will allow for children to focus on self-monitoring as well as self-management skills both inside and outside the classroom. The idea is that, over the course of time, these management skills will allow for students to complete their assignments without any of their symptoms getting in the way.
way of completing the assignments that were given to them. At the same time, submission of homework on time improves a significant amount.

*Behavioral Parent Training (BPT)*

Behavioral Parenting Training (BPT) is a way for parents to help manage their child’s behaviors appropriately, so that problem behaviors decrease and allow for more socially appropriate actions to be taken. This may include responding to your child’s behavior, whether bad or good, and giving an appropriate response to it. This alternative intervention is a way for parents to look at their child’s behaviors, and do what is necessary to manage those behaviors.

*Behavior Contingency Management (BCM)*

Behavior Contingency Management (BCM) is another form of behavior modification. This form of behavior management can be done within the classroom setting, and has a primary focus on the idea of token economies. The token economies can be used to encourage behaviors of the child that can result in awards and/or consequences based on the behavior. Benefits of this management include proper response from teachers and children.

*These are just some of the benefits that can result from the alternative treatments listed. The above mentioned can also be put forth in implementing classroom interventions and strategies as well.*

**Resources for Parents, Educators, and Researchers**

While this handbook gives specifics about ADHD and different ways to treat it, it is not intended to be a one-stop source for ADHD and treatment. This handbook is meant to be more of an informational resource for parents, educators, and researchers, in that it can be a good starting point.
Here are some resources for your consideration, with regard to Attention Deficit Hyperactivity Disorder (ADHD):

**Websites:**
- National Institute of Mental Health
  - [www.nimh.nih.gov](http://www.nimh.nih.gov)
- Children and Adults with Attention Deficit/Hyperactivity Disorder (CHADD)
  - [www.chadd.org](http://www.chadd.org)
- Centers for Disease Control – ADHD Data, Statistics, and Analysis
  - [http://www.cdc.gov/ncbddd/adhd/data.html](http://www.cdc.gov/ncbddd/adhd/data.html)