IDENTIFYING AND TEACHING STUDENTS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

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For a student with attention deficit hyperactivity disorder, or ADHD, school is full of challenges. It is a teacher’s responsibility to identify these students and understand their rights to an education. The Individuals with Disabilities Education Act and Section 504 of the Rehabilitation Act are key disability laws that outline students with disabilities’ rights to a free appropriate public education. This article describes the characteristics of students with ADHD, and what the law requires of educators in general education.

Individuals with Attention Deficit/Hyperactivity Disorder (ADHD), are one of the most prevalent groups of students referred for behavioral guidance. Three to seven percent of the students in grade school have ADHD, with a larger number of male cases than female (Hallahan, Kauffman, & Pullen, 2009). Due to ADHD’s noticeable presence in schools, it is important for teachers to be able to identify students with ADHD. When such identification is made, students can receive more tailored instruction per their needs.

Characteristics

Common, noticeable characteristics of ADHD include inattentiveness, disruptive behavior, restlessness, irritable, aggressive, and impulsive behavior. Therefore, many students with ADHD struggle to comply with social cues. Many individuals with ADHD are difficult to live with or teach. Having to reinforce positive focus and contact can be stressful to parents, family members, friends, and teachers (Kauffman & Landrum, 2009). Individuals with ADHD, like most other disabilities, differ greatly from each other. Attention spans range from periodic loss of attention to a dysfunctional level. This spectrum makes individuals with ADHD difficult to compare to each other. While some students will show noticeable impulsivity, others may show greater inattentiveness. According to Hallahan,
Kauffman, and Pullen (2009), there are four components that aid in assessing a student for ADHD: a medical examination, a clinical interview, teacher and parent rating scales, and behavioral observations. By consulting such variety in professionals, a well-rounded report can be analyzed. Each professional brings in reports from varied settings. By analyzing all aspects including physical, medical, social, academic, and behavioral characteristics, these professionals can consider all aspects of the individual’s behavior.

The Brain

Through brain imaging, scientists have discovered areas of the brain that show abnormalities in individuals with ADHD. Such areas of the brain include the frontal lobe, basal ganglia, corpus callosum, and cerebellum. Below is a table displaying the part of the brain, area affected, and typical behavior shown in an individual with ADHD.

<table>
<thead>
<tr>
<th>Area of Brain</th>
<th>Function</th>
<th>Characteristic(s) displayed in individual with ADHD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frontal Lobe</td>
<td>Executive Functions (Includes inner speech, emotion control, reaction to problems, and communication)</td>
<td>Delayed response, impulsiveness, interruptions, impatience, poor time management, lack of organization, heightened emotions</td>
</tr>
<tr>
<td>Basal Ganglia</td>
<td>Motor Behaviors/Coordination</td>
<td>Fidgety, tense, poor motor control</td>
</tr>
<tr>
<td>Corpus Callosum</td>
<td>Cognitive Functions</td>
<td>Lower cognitive achievement, slowed response, memory delay, lack of ability to recognize social cues</td>
</tr>
<tr>
<td>Cerebellum</td>
<td>Motor Behaviors/Coordination</td>
<td>Fidgety, tense, poor motor control</td>
</tr>
</tbody>
</table>

Information gathered from Hallahan, Kauffman, & Pullen (2009)

Diagnosis

Additional factors such as other health conditions, surroundings, and hereditary factors can affect an individual with ADHD’s characteristics. Some opponents consider ADHD a “U.S. phenomenon” (Hallahan, Kauffman, & Pullen, 2009). While prevalence rates differ between countries and cultures, vague definitions, differences in diagnosis criteria, and a variance of social standards make this claim difficult to confirm or deny. Consider the social cues of two differing countries. While many countries find it disrespectful for a student to make eye contact, other countries enforce it as a sign of attention. This discrepancy makes identifying characteristics of students with ADHD specific to each culture.

An overlap of characteristics and symptoms creates close relationships between ADHD and other disorders. Conduct disorders, mood disorders, anxiety disorders, and Schizophrenic disorders all have ADHD symptoms in their diagnosis characteristics. It is often difficult to have a clear diagnosis when an individual can have multiple disorders at once. According to Kauffman and Landrum (2009), while ADHD is its own disorder, there are many overlaps between ADHD and other diagnostic categories. Socially, students with ADHD are sometimes rejected by their peers due to inappropriate social behavior. These characteristics could also be related to an emotional behavioral disorder.

The Law

In special education, there are two laws, which will be discussed, that govern services to students with disabilities: Individuals with Disabilities Education Act (IDEA) and Section 504 of the Rehabilitation Act of 1973. Each law gives a variety of coverage to different categories of diagnoses. Though these two laws are very similar in nature, the types of services they provide and the groups of individuals they address differ.

IDEA

IDEA deals strictly with special education. Funds are provided through IDEA, to schools who are giving services to students of whom IDEA covers. There are 13 categories listed for IDEA qualifications. They are: Autism, specific learning disabilities, speech or language impairments, emotional disturbance, traumatic brain injury, visual impairment, hearing impairment, deafness, mental retardation, deaf-blindness, multiple disabilities, orthopedic impairment, and other health impairments (deBettencourt, 2002). A student is diagnosed with one of the preceding disabilities, they would qualify under IDEA. Through IDEA, an individualized education program (IEP) is developed for each student to make sure they receive access to FAPE, or a free appropriate public education, in the least restrictive environment (LRE) (Hallahan, Kauffman, & Pullen, 2009). The LRE is the school environment that provides that student with the best access to the material. The LRE differs from individual to individual. As mentioned in the characteristics section, each student with ADHD can show varying degrees of attention. Because of this, the LRE for each student may be different. One student may be able to function in some hands-on general education classes independently. Other students may need a one-on-one paraprofessional in a special education classroom. Part of the IEP team’s work is to identify what exactly the LRE is for a student. All too often a general education classroom is, by default, assumed to be the least restrictive. However, a general education classroom can be very restrictive to some students with disabilities. All settings should be considered to find the right fit for each individual student.

Section 504 of Rehabilitation Act

Because IDEA was so strict and guided, Section 504 was often put to the side. Schools were more concerned about following IDEA standards than defining proper use of Section 504 (Holler & Zirkel, 2008). Section 504 of the Rehabilitation Act is more general than IDEA. While IDEA has 13 categories that a student must fall into to qualify, Section 504 applies to anyone who has a mental or physical condition that substantially limits a major life activity. Additionally, deBettencourt states, Section 504 is to not discriminate against children with disabilities, whether they are public or private and receiving federal financial assistance for educational purposes. (2002). Section 504, unlike IDEA, does not provide additional
funding. However, if a school does not follow Section 504, federal funds can be taken away from that school. Compliance means providing accommodations that are comparable to services provided to their peers.

According to Section 504 students with disabilities who are at public or private schools or state agencies must be identified by the school and provide services to those individuals. To do so, students must be evaluated under multiple sources. Unlike IDEA, if a student is qualified under Section 504, it does not mean that student needs special education services (deBettencourt, 2002). For example, a student with Asthma would need accommodations for any recreational, active activity that may lead to an asthma attack. These accommodations would be provided through Section 504. She/he would not qualify under IDEA, and would not need special education services. Due to its broad civil rights nature, Section 504 prevents any organization receiving federal financial assistance from discriminating against an individual with a disability (Holler & Zirkel, 2008). Thus branching beyond the education system.

Free Appropriate Public Education

While both Section 504 and IDEA require a student be provided a free appropriate public education (FAPE), both incorporate FAPE differently. Under IDEA, a student’s IEP team would determine their FAPE. IEP meetings incorporate individuals such as a special educator, general educator, school counselor, school psychologist, an individual who is qualified to interpret evaluation results, the parents of the child, and in some cases the child. Section 504 does not require an IEP, but groups will meet to develop a general plan. As previously mentioned, Section 504 must provide education comparable to education provided to student without disabilities. IDEA defines appropriate as something that brings about educational benefit. Lastly, though both laws consider placement in any spectrum of classrooms, meaning self-contained special education to general education rooms, Section 504 students are more commonly found in general education or inclusion classrooms (deBennetcourt, 2009).

Parents

Under Section 504, it is not required to notify parents of assessments. In many cases these are to modify the accommodations and not to reevaluate. Because of this, parents do not need to be notified. However, most schools should practice respectable professionalism and include informed consent. After a plan is made, students will have annual evaluations. Parental consent is not required at these meetings either, but common practice notifies parents before big changes. Section 504 does provide certain rights to parents. Parents can be notified if a school is developing or ending services, view records of their child’s progress and history, and be granted due process (deBennetcourt, 2009). IDEA and Section 504 provide due process for parents. Both laws must provide hearing for parents if conflicts arise. IDEA requires written consent while Section 504 does not. In addition, Section 504 remains broad in that parents must simply be provided the opportunity to be represented. Schools can individually figure out other details. IDEA is more strict and has defined procedures for notification and parent consent (deBennetcourt, 2009).

A critical issue common is schools are an over identification of students that are deemed qualified for an IEP. Parents and students are becoming more interested in testing accommodations on high states testing, such as the SAT (Holler & Zirkel, 2008).

The Relationship

Students with ADHD can often struggle in general education classes. Without accommodations, students may lose focus and fall behind. Education professionals should take action when they notice students falling behind in class, particularly if a teacher sees a student struggling due to a disability. By connection the characteristics of students with ADHD and cross-referencing them to special education law, teachers can identify how students are legally entitle to these accommodations. deBettencourt (2002) breaks down the process of determining when or what services are appropriate. By following the flow chart below, educators can determine which law or course of action is most appropriate for a student. A student with ADHD could take two tracks on the chart. While IDEA is very categorical, the last category of other health impairments, or OHI, encompasses many disabilities. OHI differs between states. It is often measured on how a student’s disability affects his or her strength, alertness, reaction time, and reaction to educational stimuli, towards his or her educational performance. Through this, a student with ADHD also has a learning disability, emotional/behavioral disorder, or any of the other 13 categories, they would qualify for IDEA services. For the majority of students with ADHD
who require additional services, they fall under Section 504 criteria (deBettencourt, 2002).

Qualifications

Under Section 504, a student with a disability is defined as someone with a physical or mental impairment that substantially limits one or more major life activities (Holler & Zirkel, 2008). Breaking down the components makes the process more clear for individuals with ADHD. A student’s disability must cover all three sections fully to qualify. An individual with ADHD does not always qualify for Section 504 services. If, for example, a student has ADHD but he or she has developed methods of compensating for their disability so it does not substantially limit their work, they would not qualify for additional services. This often takes the form of adapted skills and self-monitoring. In addition, a student’s assessment must include the effects of mitigating measure, such as medication, when evaluating them for a 504 plan (Holler & Zirkel, 2008). Major life activities often considered when evaluating a student for Section 504 include learning, hearing/seeing, walking, breathing, speaking, working, and self-care (deBettencourt, 2002). Over 25% of 504 plans are developed for students who struggle with learning (Holler & Zirkel, 2008).

The Possibilities

For students with ADHD, early and effective intervention is key. A Section 504 plan must cater to their individual needs. Classroom management, modifications to assignments, and explicit instruction are all beneficial tools for teaching students with ADHD. Developing particular classroom strategies with special educators and general educators can help students with ADHD build the skills they require for long term success. An example of such a strategy is the self-regulated strategy development model (Reid & Liennemann, 2006). The next section describes behavioral strategies in more detail.

Strategies

Self-regulated strategy development model, or the SRSD model, is a six-staged model that presents a step-by-step way for teachers to implement a new strategy to the student. Note that the SRSD model is not the student’s strategy, but an effective method of introducing and incorporating a new strategy to a student. First the teacher must activate the background knowledge of the student. Here it is made clear to the student what skills they will need to complete the coming strategy. Also, students give input on how they feel about those skills. The next step includes the teacher and student discussing the strategy. This is where teachers must sell the strategy. Many students are aware of their struggles and may show resistance to addressing them head on. If a teacher is successful in this stage, the student will so they can move to the next step. That is where step three comes in.

In stage three, the teacher models the strategy. It is important that if the strategy includes evaluating oneself, the teacher displays this process out loud. The modeling should be dictated so as the student can follow along. Stage four connects with stage three and organizing the strategy. Some student will gain from modeling, or an acronym, or song, or even a cheat sheet of sort to remind them of the steps in their strategy. Students begin to explore the strategy in stage five where teacher support is crucial. Students are doing the strategy themselves, but are heavily guided by the teacher. Stage 5 gradually builds to stage 6, independent performance (Reid & Lienemann, 2006). Teachers should slowly lead their students to independent performance of their strategy. For any strategy, a student being able to implement it on their own shows individual growth and independence, applicable to any student and future adult.

Certain classroom management tricks are also beneficial to a classroom with a student or students with ADHD. Teachers may consider particular seating arrangement. Having the student sit close to the teacher, up front, or in a section of the room with no distractions will eliminate external stimuli. Other elements like verbal reminders for good behavior or positive reinforcement can lead to effective behavioral modification. In general instructions, teachers should move and talk slow. Letting the student know the class schedule and allowing them to assist with transitions or other jobs, will keep them busy and focused into class. It is important to develop consistency with any behavior modification technique that is found to be effective. Particularly in secondary schools, teachers should communicate with the other teachers the student comes in contact with to develop effective skills promoting lifelong success.

Case Study

To imagine the process in action, review 8th grader Emily and her teacher Miss Smith as an example. Emily has ADHD and has difficulty paying attention during class and fidgets. Because Emily’s behaviors have substantially affected her ability to learn in class, she has been evaluated and determined qualified for a Section 504 plan. During her planning meeting, the teachers and staff determine it is important for Emily to develop her ability to monitor her own attention. They devise a plan that Emily will have a chart on her desk with a column numbered 1-30 and an adjacent column left blank. During class, Emily will have one headphone in that will beep 30 times throughout class. At each beep Emily will put down a check if she felt she was on task or an “X” if she was not.

Taking this example of a strategy, observe how Miss Smith, Emily’s teacher, will implement the strategy using the SRSD model. Her teacher takes this plan back to Emily and begins the stages of the SRSD model. First, she notifies Emily that she has noticed Emily struggling to pay attention and would like to help her work on staying on task. She will need to work on focusing on class while monitoring her own actions. Next, Miss Smith and Emily have a discussion on the importance of paying attention and how this will benefit Emily in the future. Miss Smith will now show Emily how the beep and recording will work. She places the ear piece in and pretends to be listening. When the beep goes off Miss Smith says, “Oh, I just heard a beep. Now was I paying attention, or was I off task?” I had my eyes on the teacher and I remember what she was saying, so I am going to put a “X” in the box and then tune back in.” Miss Smith may also show what to do if Emily was not paying attention, mentioning that it is ok if she isn’t, that this is for her own practice and improvement. For stage three Miss Smith may ask Emily what she would do in certain situations so she is aware of what her expectations are and how the strategy works. Next, Emily will try the strategy out in class. Periodically Miss Smith will check on Emily to make sure she is performing the strategy fluently or make adjustments as needed. Over the next few days to weeks, Miss Smith will monitor Emily’s charts less and less. Ultimately the beeps and charts will go away and Emily will be able to refocus her attention when she notices she is off task.
Conclusion

Students with ADHD enter classrooms every day and go unguided. By understanding students with ADHD’s characteristics, professionals are better prepared to identify the students who need help with ADHD. After an identification and evaluation is in place, the student’s legal rights become vital information. These allow the school to access the proper services for these students. While the law required there services be provided, teachers must be able to take those services and create meaningful and affective strategies for instruction and individual student goals.

References


As of 2010, approximately 500,000 adult psychopaths were incarcerated for heinous crimes. Historically, incarceration has been the response to extreme antisocial behavior of adult psychopaths, but research consistently shows that punitive measures are ineffective treatment to reform psychopaths. In contrast, current research on the plasticity of the adult human brain argues that the brain can change through adulthood and that therapy should therefore be sought for them. This article highlights brain plasticity in the adult, and argues that teachers should know early markers of psychopathy in order to design interventions for children who display extreme antisocial behaviors, and therefore reduce the likelihood that children with conduct problems will become adult psychopaths.

The brain of a psychopath is wired differently than the brain of an average person: a psychopath experiences dysfunction in many areas of the brain to which most people do not give a second thought. The most notable difference in the brain of a psychopath is dysfunction in the prefrontal cortex, which leaves psychopaths with a lack of empathy and a tendency for impulsivity (Feifer & Leonard-Zabel, 2009). Empathy, or the ability to understand the emotions and feelings of others and to recognize a resemblance between “self” and “other,” is crucial to a person’s ability to function as a normal human being. Mirror neurons, located in the prefrontal cortex, are linked to empathy because the prefrontal cortex becomes activated both when a person experiences an emotion and when he sees another person experiencing it (Feifer, 2009). The mirror neuron system is dysfunctional...