Identification of Young Children With Special Needs

11

Instruction does much, but encouragement does everything.

—Goethe

Introduction and Themes

The total number and the percentage of the population of children with a significant disability have never been greater. Early childhood educators are the first to refer most of these children for evaluation.

Prior to the 1970s, there was no uniform requirement for public schools to provide special education for children with disabilities. Passage of Section 504 of the Vocational Rehabilitation Act (1973) and the Education for All Handicapped Children Act (1975) changed this. In 1986, amendments to the latter (P.L. 99-457) extended requirements for educational services to children as young as 2 years old. A recent version of Public Law 94-142, the Individuals With Disabilities Education Improvement Act (IDEIA, 2004) made many of the testing provisions of 94-142 subservient to federal testing mandates passed in 2002 (P.L. 107-100, No Child Left Behind Act). IDEIA also introduced use of response to intervention (RTI) as a normal step for the identification of children with attention deficit/hyperactivity disorder (AD/HD). It also expanded early special education to toddlers and their families.

Identification of a disabling condition is not sufficient proof for a child to receive special education services. There must also be proof that the normal development and education of the child is being impaired by the condition.

Learning Objectives

By reading and studying this chapter, you should acquire the competency to:

- List major classifications of disabilities experienced by school children in the United States.
- Explain the legal basis for the case law that has led to the passage of special education legislation.
- Explain requirements of Section 504 of the Rehabilitation Act as to the services schools must provide children experiencing a learning problem.

- Describe various forms that Public Law 94-142 has taken between the 1975 Education for All Handicapped Children Act and the latest version as the Individuals With Disabilities Education Improvement Act.
- Explain the difference between assessment using response to intervention and curriculum-based assessment.
- Describe methods that can be used to identify young children with AD/HD.
- Describe methods that can be used to identify young children with Asperger's disorder and other pervasive developmental disorders.

Special Education Population

The number of children receiving services for special education in this country has never been greater, nor has it ever represented a larger proportion of the population of students. In 2005, there were 6,109,000 children enrolled in special education programs (see Table 11.1 for a breakdown). The total public school population that year was 50 million. Thus, 12% of the school-age population receives special education services.[1]

Between 80 and 90% of children with disabilities were not identified until they began school (Barkley, 1998; Mash & Dozois, 1996). Disabilities most typically identified prior to starting public school include developmental delay, orthopedic disabilities, genetic abnormalities, major illnesses, and traumatic injuries (Raber & Frechtling, 1985). Some disabilities not normally identified until the child is of school age include **attention deficit/hyperactivity disorder** and learning disorders (American Psychiatric Association, 1994). The critical point is that early childhood educators have a central role to play in early identification of children who will need special assistance. The necessity for teachers to be vigilant for, and have sensitivity to, signs a child may need special support cannot be overstated.

- Specific Learning Disabilities (LD and AD/HD) 2,780,200
- Speech or Language Impairments 1,157,200
- Mental Retardation (all levels) 545,500
- Emotional Disturbance and Conduct Disorders 472,400
- Multiple Disabilities 133,900
- Autism Spectrum Disorder (including Asperger's disorder) 193,000
- Hearing Impairments 72,400
- Orthopedic Impairments 63,100
- Major Health Impairments 561,000
- Traumatic Brain Injury 23,500
- Vision Impairment (including blind and low vision) 26,000
- Deaf and Blind 1,600
- Developmental Delay (incomplete data from states) 79,100
- Approximate total of all children with a disability 6,109,600

SOURCE: U.S. Department of Education, 2007, available at http://www.ideadata.org/index.html.

Table 11.1 Children Being Provided Special Education Services in 2005

Identification

The primary goal for early identification of possible learning problems is to direct services to the child and his/her family (Scarborough et al., 2004).

Preschool teachers are better equipped than parents to identify children exhibiting potential learning problems. Parents lack broad experience with many children at different levels of ability and from different backgrounds. This parochial viewpoint limits what parents know about what early childhood behaviors are within the normal range.

The problem faced by preschool teachers is the possible harm done by a failure to follow up and determine that a child needs special support services. Likewise, if the decision by the early childhood educator is to pursue a full-scale evaluation, and that effort shows there is no difficulty present, it is possible the child's parents will have been frightened for no reason. Likewise, valuable resources (in terms of staff time) will have been used without good cause.

This difficult decision for teachers about the identification of children possibly needing special education has been resolved by two pieces of federal legislation that clearly describe steps to be followed whenever a possible learning problem exists. These specific steps were provided to ensure the validity and fairness of the process.

The first step in the process of providing young children with extra help for their learning involves **identification.** Once the early childhood teacher senses a child may need special educational services, a screening for the possible problem must be conducted. Table 11.2 presents steps in the identification and assessment processes.

Intervention

Early intervention can make a major difference in the life of a young child. Follow-up research has shown the expense of early intervention for preschool-aged children with special needs is cost effective. Early identification can reduce long-term supplemental educational expenses for assisting children with disabilities later in their educational careers. While working with a sample of children identified with Down's syndrome, Nancy Wybranski (1996) found the amount of preschool support they received was inversely related to the amount of assistance they needed as second graders. The point is, early intervention provides support and improves the likelihood a child will have a successful school career.

Step	*Decision to Be Made*
1. Screening	Whether or not a **referral** for further assessment is needed
2. Assessment	What is the area of learning or developmental difficulty? Referral to Instructional Support Team[2]
3. Multidisciplinary	Eligibility for special services and instructional program planning team evaluation
4. Monitoring of child	Decide if the intervention is working or requires modification

Table 11.2 Steps in the Process of Identifying Children Requiring Special Services

Legal Basis

The 14th Amendment to the U.S. Constitution provides the basis federal courts have referenced when requiring school systems provide children with disabilities an education equivalent to what is received by others. Court decisions make up what is known as case law. Federal courts are free to use cases that come before them to create policies having the force of law. The U.S. Supreme Court has decided that every child has a Constitutional right to an appropriate education. In other words, no school can refuse to provide a child with an appropriate educational program. Federal legislation has followed the leadership of the courts in this matter.

U.S. Constitution, Amendment 14, Section 1:

No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny any person within its jurisdiction to the equal protection of the laws. Ratified July 9, 1868.

Case Law[3]

Several critical court decisions led to policies taken for granted today. For the most part, these cases have been based on the requirements for **equal protection** and **due process**. Before the 1970s, public schools could, and often did, refuse to provide a free public school education for children with significant disabilities. Children with less obvious disabilities were allowed to attend school and languish in regular education classrooms. Eventually, these children dropped out of school. If parents of children with disabilities wanted to ensure their children were appropriately educated, it was their responsibility to find private schools and pay the tuition. Public schools believed they had no role to play in the placement or education of children with disabilities.

That all changed with a federal court decision from the case *Parents Association for Retarded Children (PARC) v. the Commonwealth of Pennsylvania.* In October 1971, Pennsylvania accepted a consent decision mandating that "All children, handicapped or otherwise, are entitled to a free and appropriate public education." Subsequent case law by the Supreme Court of the United States made it illegal to change the status of any child without providing the child and his/her family with procedural due process (*Gross et al. v. Lopez et al.,* 1975).

Thus, children cannot be expelled from school unless there has been an open hearing when the child's parents could provide evidence and be represented by counsel. Additionally, all placement decisions, including whether or not special education is to be provided to a child, must make provisions for the child's parents to have input into the process. See Case in Point 11.1 for a description of an unfortunate incident with a special needs child in kindergarten.

Case in Point 11.1

Inappropriate Disciplinary Method

Most early childhood educators are prepared to teach in an inclusive classroom. The mix of children with special needs and children without disabilities in the same early classroom requires a skillful and patient teacher.

On May 28, 2008, local television news carried the story of a kindergarten teacher in Port Saint Lucie, Florida. She was frustrated by the behavior of a disabled student (Asperger's disorder). She had the troublesome child stand in front of the kindergarten class and asked each class member to tell the child why they did

not like him. The teacher then belittled the problematic kindergartener herself. Next she asked her class to vote on whether the offending child should be sent out of the classroom or be allowed to remain. The kindergarten class voted 14 to 2 to have the child removed.

The child's parents were not amused by this behavioral management approach. During a stormy conference with the school's principal, the child's mother was told her boy needed to be disciplined and learn to follow rules. The mother contacted local media when she thought the school's principal was not hearing her. The school district became involved, and the teacher was asked to explain her management approach to the superintendent of schools.

The kindergarten teacher defended her behavior as an appropriate disciplinary approach. The administration of the Port Saint Lucie School District did not agree, and the teacher was disciplined. Meanwhile, a nationwide online petition by parents of children with Asperger's disorder collected thousands of names of people demanding action by the Saint Lucie County School District (Fox News, 2008).

Federal Statutes

The federal government passes laws with mandates for schools to follow; but each state develops local laws needed to enable the federal plans.[4] For example, each state is required to develop regulations for school systems to conduct screenings for possible learning and/or health problems including sensory screenings for possible problems of hearing and vision. Additionally, measures of achievement and cognition are also required as part of ongoing screenings. Early screenings for possible problems are a first step in the process of making an **entitlement decision** (Wolery, 1994).

Education of the Handicapped Act (P.L. 91-230, 1970) and Related Legislation

Programs set up by the Bureau for Education of the Handicapped[5] were consolidated into the first federal legislation for special education in 1970 with the passage of Public Law 91-230. Later that decade another significant law, the Education of the Handicapped Act Amendments of 1974 (P. L. 93-380) provided subventions (grant totals of $15 million) directly to local school districts designed to improve educational programs for children with disabilities.

Section 504 of the Vocational Rehabilitation Act (1973)

This law signed by President Richard M. Nixon in 1973 ensured equal access to a free and appropriate education for all children needing special education services between 3 and 22 years old.

It was written to protect all individuals (including children) from any form of discrimination based on having a disability. Section 504 mandates include the use of an **Instructional Support Team (IST).** The team includes the child's parent(s), classroom teachers, a guidance counselor or child development specialist, educational specialists (e.g., reading, art, music, and physical education teachers), a school nurse (if on staff), and the principal or director. See a sample referral form for a student assistance team in Figure 11.1.

The IST should meet shortly after a referral is received, and not wait to see "how things work-out." ISTs address educational problems children are experiencing even when the problems are not severe. Their goal is to identify alternative solutions for students having difficulty.

Name of Student _____ Gender ____(M) ____(F)

Date of Birth (mm/dd/yyyy) _____/_____/_____ Grade(s) repeated _____

Attended preschool program? ___(Y) ___(N) If yes which? _____

If yes, how many months of fulltime preschool enrollment?_____ How many months part-time _____

Attended day care (nonacademic) ___(Y) ___(N) If yes, which? _____

Most recent test scores: Date of Test _____ Test form ____ Level ____

Standardized Achievement: _____ Reading Total _____ Reading Vocabulary _____ Reading Comp.

_____ Arithmetic _____ Arithmetic Problem Solving _____ Writing Mechanics ____ Spelling

Other test scores _____ When given?_____

Name (Print) of Referring Teacher _____

School Building _____ Grade level(s) _____ Phone _____

****

Describe the learning problem.

Associated areas of problematic behavior.

****

Part II

Student Assistance Committee Recommendations Date _____/_____/_____
Instructional Activity and Materials

Benchmark for Success

Duration of Intervention _____

Signature Referring Teacher _____

Signature School Administrator _____

Signature Lead Teacher _____

Figure 11.1 Sample referral form for a student assistance program team review

Schedule

ISTs should meet regularly to review the child's progress and discuss educational strategies with the teacher. Periodic IST meetings (four times a year) provide a forum where the classroom teacher can express his/her concerns when/if the efforts do not appear to be working. It is usual that toward the end of the

school year the final IST committee meeting includes the teacher(s) who will work with the child in the next grade. Additionally, the child's progress for the year should be summarized and ideas for parents and child to work on over the summer be presented and discussed.

Individuals With Disabilities Education Act (The Education for All Handicapped Children Act) (P. L. 94-142, 1975)

This law provides three mandates regarding children with disabilities including a **free and appropriate educational program.** Second, special educational services should be provided in the **least restrictive educational environment.** The third requirement mandates development of a written individual education plan with clear objectives and indicators of success.

The requirement for a free and appropriate education for all children with disabilities forced many school systems to change their policies and approaches. Parents can take school systems to court and force compliance for failing to provide services children need (Katsiyannis & Herbst, 2004).[6]

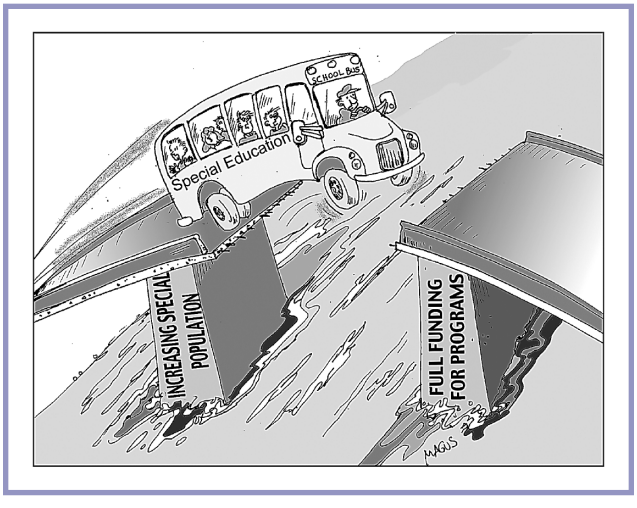

Figure 11.2

The second mandate defining the best placement for children with disabilities as the least restrictive environment changed the nature of special education in schools. **Inclusion classes** that pair special education and regular education teachers replaced dedicated special education classrooms. Today, all teachers instruct children with special needs every day (Alvarado, 2006; Gaetano, 2006). In early childhood settings, children needing special services learn in inclusive early childhood education settings.

Individual Educational Plans (IEPs) are written to describe goals for special education services, approaches to employ with instruction, and benchmarks for success. Each IEP is the product of a **multidisciplinary team** and includes the full involvement of the child's parents. Under the requirements of **procedural due process,** parents who are not in agreement with the outcome of the multidisciplinary team can appeal the decision (see Chapter 12).

Communications with the child's parent(s) must be in the language they understand. This can be a challenge because over 50 different primary languages are common among those attending public schools in America (Salvia et al., 2007).

Instructional and Assistive Technology

The Communications Technology Amendments of the Rehabilitation Act of 1998 (P.L. 105-220) required computers provide adaptations for users with disabilities. Technology makes it possible for children with disabilities to communicate with others, read books, and listen to their teacher's presentation. Adaptations include modified keyboards, and a user-friendly computer "mouse." Software modifications now provide accommodations for children with orthopedic disabilities and help those with sensory impairments by providing larger font sizes, higher sound levels, and speech recognition.

The IEP Process

When the IST's interventions are not effective, a second more formal referral is initiated. The referral organizes and presents the initial IST committee's materials and instructional support plan, interim reports, and recent assessment scores. The guidance counselor, or the lead teacher, may coordinate this effort. The Individual Educational Plan (IEP) is the next step for children with disabilities between 3 and 21 years. Figure 11.3 provides a sample referral form for an IEP Committee.

Name of student _____ Gender ___(M) ___(F)

Date of birth (mm/dd/yyyy) _____/_____/_____ Grade(s) repeated _____

Attended preschool program? ___(Y) ___(N) If yes, which? _____

If yes, how many months of full-time preschool enrollment?___ How many months part-time __

Attended day care (nonacademic) ___(Y) ___(N) If yes, which? _____

Academic and cocurricular development and activities.

Disciplinary referrals past two years.

Grades for major subjects for past two years:

From Year _____ to Year _____

Reading _____ _____

Mathematics _____ _____

Science _____ _____

Social Studies _____ _____

Most recent test scores: Date of test ___/____/_____ Test form _____ Level _____

Standardized Achievement: ____ Reading Total ____ Reading Vocabulary ____ Reading Comp.

____ Arithmetic _____Arithmetic Problem Solving ____Writing Mechanics ____ Spelling

Most recent NCLB scores: Date of test ___/____/_____

(Abv) = Above, (Pro)= Proficient, (Bgn) =Beginning, (Blw) = Below Proficient

Percentile Reading ____% (Abv) ___ (Pro) ___ (Bgn) ___ (Blw) ___

Percentile Math ____ % (Abv) ___ (Pro) ___ (Bgn) ___ (Blw) ___

Percentile Science ____% (Abv) ___ (Pro) ___ (Bgn) ___ (Blw) ___

Other test scores _____ When given? _____

Figure 11.3 (Continued)

Name (Print) of Referring Teacher _____

School Building _____ Grade level(s) _____ Phone _____

****

Describe the interventions initiated by the Student Support Team (SAT) or the Instructional Support Team (IST).

Dates of SAT/IST intervention: Start ___/___/_____ End ___/___/_____

Describe outcomes from the (SAT/IST) committee.

Does the child qualify for extended school year services? ___(Y) ___(N)

Describe the current learning problem.

Associated areas of problematic behavior.

Unmet annual goals for growth in each dimension of achievement specified in the curriculum:

Goal(s)	Benchmark(s)
1.	1.
2.	2.
3.	3.
4.	4.

Figure 11.3 Sample IEP Committee referral form for primary grade children

IEP Format

IDEIA (2004) requires an Individual Educational Plan but does not prescribe a format to follow (see Figure 11.4 for the required elements). A critical requirement for IEPs is documentation proving the child's learning is negatively impacted by the identified condition or disability.

Most local school systems have developed their own IEP formats. Educational software vendors now sell computerized IEP writing software. One advantage of computerized IEPs is they ensure all documents are

1. Child's current educational **performance level** across all areas of the curriculum and a description of how the disability affects the child's involvement and progress in school.
2. List of reasonable annual goals that can be accomplished during the school year.
3. Special education and related services that will be provided to the child including any modifications, and program supports the child will receive.
4. Description of the extent to which the disabled child will participate in regular classroom activities with nondisabled peers.
5. Modifications or accommodations needed for the child to take mandated standardized tests.
6. Start date when special education and related services will be provided to the child and the frequency and duration of these activities and support services.
7. Provision for the transition of the child into life after school. (This component must be in place before the child reaches the age of 14.)
8. Provision for counseling about the rights that the child will accrue upon reaching the age of 18.
9. Description of how progress toward annual goals will be measured, and how the child's parents will be kept appraised of that progress.

Figure 11.4 Required elements of an IEP

For more information about IEPs, see http://www.ed.gov/parents/needs/speced/iepguide/index.html.

similar in quality and follow a common structure (Margolis & Free, 2001). Example software can be reviewed at the following URLs:

Tera Systems
http://www.einet.net/review/3494-234948/IEP_Software_Special_Education_Software_by_Tera_Systems_Inc.htm

Chalkware Educational Solutions
http://www.iepware.com/

Maximus/Tienet System
http://www.maximus.com/corporate/pages/tienet.asp

The decision to provide testing accommodations during statewide tests and whether the child qualifies for **extended school year services (ESY)** is normally addressed during the meeting of the multidisciplinary team that writes the IEP. This recommendation is then included in the IEP.[7]

Response to Intervention (RTI)

RTI provides a systematic method to monitor progress once an IEP has been developed. It requires the careful charting how a child with special needs responds to interventions. The approach is very similar to the use of **curriculum-based assessment (CBA)** (see below).

RTI begins early in the school year when every child is screened for possible educational deficits (Samuels, 2008). Once children at risk have been identified through screening, standardized assessments are employed to evaluate them. Children with serious educational needs are then presented with selected

instructional interventions keyed to their specific difficulties. This takes place through the "504" committee. Children are periodically retested and if there is no improvement, they are normally referred to the **IEP Committee** for evaluation.

Curriculum-based Assessment (CBA)

Curriculum-based assessment is a specialized form of measurement that identifies the child's actual capability to perform tasks required for learning. Once the child's capabilities are identified, remediation requirements can be established by analyzing the discrepancy between the child's performance levels and the performance of others. CBA measures, known as curriculum probes, are locally produced reflecting local curriculum goals (Fuchs & Fuchs, 2004). For example, probes may involve testing the number of words the child can read in a minute; or, briefly testing the child's ability to solve multiplication problems. CBA identifies skills needing improvement and suggests remediation, while providing data that may be needed later to develop an IEP. Combining probes with more traditional measurement dimensions such as normative achievement and cognitive/intellectual ability provides the full curriculum-based assessment (Lichtenstein, 2002).

Individual Family Service Plan (IFSP)

In 2004, the Individuals With Disabilities Education Improvement Act (IDEIA) extended special education services to infants and toddlers. The vehicle for planning the delivery of specialized services is the Individual Family Service Plan (IFSP). Referral for evaluation and possible services can originate from medical professionals, social workers, or caregivers (IDEIA, 2004).

The child is evaluated within his/her family context, and a plan developed for the family designed to optimize the child's development. This starts with a series of early childhood evaluations and family interviews carried out by a child development specialist or early childhood teacher.

Social service agencies lead the process of writing the Individual Family Service Plan. IFSPs address the abilities and limitations of the child, while providing a plan of action to remediate areas of developmental delay (Bruder, 2003/2004). IFSPs include family members and take into account the natural environment in which the child lives. The key required elements of an IFSP are provided on Figure 11.5.

1. Child's present level of physical, cognitive communication, social/emotional, and adaptive development.
2. Family's resources, priorities, and concerns relating to the development of the disabled child.
3. Major outcomes to be achieved for the child and the family; the criteria, procedures, and timelines for determining progress, and a timeline for deciding about modifications in the plan that may be needed.
4. Specified list of early intervention services for the child and family including a statement of the beginning, frequency, and intensity of such services.
5. A description of the natural environment in which the child lives. If a change is indicated, a detailed justification for not providing services in the natural environment of the child and family.
6. Name and contact information for the person with the responsibility to coordinate service delivery to the family.
7. Transition plan from early childhood preschool or day care to public school, including a provision for parents to provide input in the development of the IEP.

Figure 11.5 Required elements in an IFSP

Rapidity of normal growth and development during early childhood years is one reason why assessment findings reported in the IFSP must be reviewed every six months. This **biannual review** requirement reflects the marginal test-retest reliability for early childhood assessments (Bricker, Yovanoff, Capt, & Allen, 2003).

Accommodations for Children With Disabilities

The goal of providing accommodations to special needs children during tests is to ensure the evaluation is of what the child has accomplished and can do, not what disabilities prevent him/her from doing. Each state has its own set of guidelines for testing accommodations. The goal for providing accommodations is not to give some children an advantage, but to make it possible for children with special needs to fully participate. A list of approved accommodations can be found at a Web page from the University of Minnesota: http://education.umn.edu/NCEO/TopicAreas/Accommodations/AccomFAQ.htm.

All school systems should also have an approved set of policies for accommodating needs of special education students on classroom tests and examinations.

Identification of Learning Disabilities

Assessment of Reading Problems

Reading is a core skill for every child. The third grade, with its high-stakes reading test, can be a nightmare for children who have fallen behind in the development of this skill. More referrals are made for reading problems than for any other curriculum area (Lyon, 1998) (see Chapter 9).

Environmental Factors

Reading problems do not imply neurological or psychological abnormalities. Most children having difficulty learning to read had little exposure to reading materials and no preliteracy experiences prior to kindergarten. Children surrounded with numerous books and caregivers that play rhyming games, read aloud, and work to expand the child's vocabulary, tend to learn to read without difficulty. The National Reading Panel published a list of parental linguistic interactions that facilitate a child's learning to read including talking and listening, reading children's books aloud, talking about books, learning to recognize letters of the alphabet, and demonstrating the letter-sound link (Armbruster, Lehr, & Osborn, 2003).

Assessment of Numeracy Problems

The second most common disability involves **numeracy problems** and learning mathematics. This area for learning is closely linked to the child's cognitive development. The connection between cognition and the development and measurement of mathematics concepts is described in Chapter 9.

Identification of AD/HD

Attention deficit/hyperactivity disorder (AD/HD) is a disability associated with learning problems that impacts the largest number of children. This disorder interferes with neurological executive functions of the brain including the ability to focus and attend to tasks (McLean, Wolery, & Bailey, 2003). Children who cannot attend to learning tasks lack the ability to focus on classroom instruction. This form of AD/HD is named attention deficit/hyperactivity disorder, predominantly inattentive type by the American Psychiatric Association (1994). When combined with hyperactive behaviors it becomes attention deficit/hyperactivity disorder, combined type. AD/HD frequently occurs along with learning problems including poor reading skills (American Psychiatric Association, 1994). Symptoms associated with AD/HD diminish but never

disappear as the individual matures. It may still have an adverse effect on the life of adults in college and at work (T. Brown, 2005).

Tourette syndrome is a neurological disorder that manifests as uncontrolled **motor** and/or **verbal tics**. It is usually first evident when the child is between 5 and 7 years; however, it can be obvious among younger children (Evans, King, & Leckman, 1996). A mild form of Tourette syndrome appears in 1% of all children, and one in a thousand have severe involvement. The likelihood a child will have AD/HD if he or she is diagnosed with Tourette syndrome is very high (Walkup, 2006).

Incidence

Over 40% of all special education entitlement decisions involve AD/HD or a related learning problem (e.g., learning disability [LD]). Only 20% of the children identified with AD/HD are girls (Committee on Quality Improvement, 2000). Of the children identified with AD/HD, about two out of three are also hyperactive.[8] There is evidence for a genetic component to the problem of AD/HD (Chang, 2005).

The diagnosis of AD/HD is typically compounded with anxiety, conduct disorder, and/or severe oppositional behavior (Hardman, Drew, & Egan, 2008). Attention deficit/hyperactivity disorder is also found among children with problems in language and speech development and those with reading problems.

Before 2007, the best method for screening a child for possible AD/HD involved using observational checklists.[9] Checklists used in the identification of AD/HD include items to be answered by both parents and teacher. Having a child exhibiting the behaviors associated with AD/HD changes parenting behavior and must be considered in developing the IEP (Lin, 2001). A clinical interview of the parent(s) by the school's psychologist can provide these data. Entitlement decisions for special education for children with AD/HD must include a clinical diagnosis by a highly trained professional.

A pediatric allergist published a book in 1975 that described a link between the diet children eat and the likelihood that they will exhibit AD/HD symptoms. That book by Benjamin F. Feingold was extraordinarily popular among parents of young children. His recommendation was to eliminate artificial coloring agents and preservatives from the food that young children eat. Recent research in Great Britain has supported Feingold's original hypothesis. See Case in Point 11.2.

Case in Point 11.2

The Feingold Diet and AD/HD

Following publication of the Feingold Diet in 1975, many parents of children with AD/HD tried to control their child's symptoms through diet. The items removed include all foods and patent medicines containing:

- Artificial (synthetic) coloring
- Artificial (synthetic) flavoring
- Aspartame (Nutrasweet, an artificial sweetener)
- Artificial (synthetic) preservatives BHA, BHT, TBHQ

Anecdotal reports support this approach to treating AD/HD (Brody, 2009). Recently, a team of medical researchers in the United Kingdom was able to document that this dietary approach inhibits the symptoms of AD/HD in young children (McCann et al., 2007). That research used a double blind research approach and was able to both increase and decrease the level and severity of AD/HD symptoms through dietary control.

Instruments for Identification of AD/HD

Diagnostic guidelines provided in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychological Association, 1994) provide the basis for published AD/HD checklists. An entitlement decision requires a licensed clinical specialist make the diagnosis.

The American Psychiatric Association suggests that a child may be AD/HD if he/she persistently exhibits an array of these behaviors in both school and home settings:

1. Inattention
   a. fails to follow through and complete tasks
   b. is easily distracted by the environment and others in it
   c. finds it hard to concentrate on schoolwork or sustain attention
   d. does not listen when spoken to
   e. is forgetful and tends to lose items (homework, lunch, books, etc.)
2. Hyperactivity
   a. will climb and roam
   b. constantly shifting from one task to another
   c. talks excessively
   d. is constantly on the go as if driven by a motor
   e. is restless and cannot remain seated for a long period
   f. does not play well with others (few friends)
3. Impulsivity
   a. acts without thinking or planning
   b. frequently calls out in class
   c. frequently interrupts others and butts into conversations
   d. cannot wait before taking a turn
4. Early Onset

There is an early onset of the disorder, with the symptoms occurring before the age of 7. Symptoms must have persisted for more than six months.

A medical treatment for the symptoms of ADHD involves the use of psychotropic medications. See Case in Point 11.3 for information on this pharmacological approach to controlling symptoms.

Case in Point 11.3

Psychotropic Drugs and AD/HD

A common medical approach to treating children identified as having AD/HD includes the prescription of methylphenidate. This drug goes by the brand name Ritalin. Today, about one million children are treated with Ritalin or similar drugs (atomoxetine and dexamfetamine).

The concern is that the use of psychotropic stimulant medication may lead to drug and alcohol addiction later in adulthood. Longitudinal research evidence has not found this to be true (Wilens, Faraone, Biederman, &

Gunawardene, 2003). There are serious side effects associated with long-term use of these powerful stimulants. One is that methylphenidate can increase blood pressure, reduce appetite, cause stomach pain, increase nervousness and anxiety, and make it more difficult for the child to sleep. *Many parents are reluctant to give their children this powerful medicine.*

The advantage is that the drug can give the child the ability to focus attention on learning. It also improves the child's receptive language ability (R. T. Brown, Perwien, Faries, Kratochvil, & Vaughan, 2006). The key to the successful use of methylphenidate is careful titration of the child's serum and close monitoring by a board certified child psychiatrist.

There are over two dozen published observational scales for identification of AD/HD. Five observational scales commonly used to gather data about children experiencing learning problems related to attention deficit are listed below.

Behavior Assessment System for Children, 2nd ed. (BASC-2)

BASC-2 is described as a multidimensional approach to assessing a range of childhood disorders including AD/HD. It is published by Pearson Education ($124.00, 2008), and is used with children between 2 and 21 years old (Reynolds & Kamphaus, 2004).

It includes teacher and parent self-report questionnaires, a formal student observation system, and forms for collecting the child's developmental history. BASC-2 assesses the possibility of impairment in the child's "executive function."[10] The BASC-2 was well normed and corrected for gender differences. It requires the professional interpreting it be educated at a B level (see Chapter 7). A version of the BASC-2 was published in Spanish and validated on a sample of children from Puerto Rico (Perez & Ines, 2004). To review a sample parent report, see the following URL: http://www.agsnet.com/Group.asp?nGroupInfoID=a30000.

Brown Attention Deficit Disorder Scales for Children and Adolescents (Brown-ADD)

The Brown-ADD Scales for Children includes a teacher questionnaire, parent questionnaire, and a semi-structured clinical interview. Administration of the questionnaire requires examiners to be trained at a B level (see Chapter 7). Pearson Assessment sells the Brown Scales for $235.00 (2009).

It was normed for use with a population between 3 and 12 years old, and provides comparative and diagnostic tables up to age 18. Unfortunately, the sampling process used by T. Brown (2001) opened the measure to criticism as having a potentially biased normative base (Jennings, 2003).

Conners' Rating Scales-Revised (CRS-R)

Multi-Health Systems of Canada designed the Conners' Rating Scales-Revised for use with children between 3 and 17 years (Conners, 1997/2000). Pearson Assessment distributes the CRS-R in the United States for $276.00 (2009).

CRS-R provides a global index score as well as scores that align with the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV,* 1994) AD/HD classification. Scoring and interpretation of the CRS-R is limited to educators who have a B level of measurement education (see Chapter 7).

There are seven subscale scores that are a part of the CRS-R: Oppositional, Cognitive Inattention and Problems, Hyperactivity, Anxious-Shy, Perfectionism, Social Problems, and Psychosomatic (Hess, 2001).

Early Childhood Attention Deficit Disorders Evaluation Scale (ECADDES)

The Early Childhood Attention Deficit Disorders Evaluation Scale is appropriate for children between the ages of 2 and 6 years. ECADDES was designed by Stephen McCarney and Nancy Johnson (1995) to align with diagnostic characteristics listed in the *DSM-IV* (1994). Hawthorne Educational Services lists ECADDES for $178.00 (2009).

Two observational checklists make up this instrument, one for use in the school and the other for use in the child's home. Data from the observations in two settings (home and school) are used to derive scores on two subscales, Inattentive and Hyperactive-Impulsive. Observational checklists take less than half an hour to be completed by the preschool teacher and the parent. The ECADDES was standardized on a sample of almost 2,900 children. The sample was not nationally representative with an underrepresentation of children from ethnic minority groups and an overrepresentation of children from rural settings in the upper Midwest (L. Cohen, 2001; H. Keller, 2001).

Scales for Diagnosing Attention Deficit/Hyperactivity Disorder (SCALES)

Gail Ryser and Kathleen McConnell (2002) developed this instrument that can identify children and adolescents (5 through 18 years) who exhibit AD/HD behaviors. Pro-Ed lists this measure for $98.00 (2008).

Questionnaires are completed by teachers and parents and are to be scored by a B level administrator (see Chapter 7). The 39 Likert-type scale questions on two forms yield three subscale scores aligned with *DSM-IV* (1994) criteria, vis-à-vis inattentiveness, hyperactivity, and impulsivity. The validity of the three subscale scores was well established by factor analysis (Law, 2001). This measure is a good screen for AD/HD and is also an appropriate device to use to monitor students who have an IEP for attention deficit/hyperactivity disorder.

The Quotient AD/HD System

This system is a 15- to-20-minute individualized assessment for AD/HD. It is given on a computer screen and involves three infrared projectors, motion tracking devices, and a high-speed computer presentation of test stimuli. The system is enclosed in a study carrel and has a large screen for the child to watch. The computer-presented stimuli are flashed for 0.02 seconds every 2 seconds. The stimuli flashed on the screen are geometric shapes. Children are instructed to tap a key when one designated shape is presented, and ignore the others. The infrared systems trace the child's head and leg movements during the assessment process. The computer also tracks the child's latency of responses and errors. Altogether the system observes and collects data about the child 50 times per second on 19 different variables. These measures are analyzed by the corporation center over a secure Internet link. Data are analyzed at the offices in Cambridge, Massachusetts, which sends a report back about the child within a minute. That report is based on a normative sample of 2,000 children.

These 2,000 children were from schools in New England that volunteered to participate in a standardization study. The sample did not include children who were receiving psychotropic drugs, and included children of all ability levels between kindergarten and Grade 8 (Eric Gordon, CEO, personal communication, August 21, 2008). Test-retest reliability after a five-day latency was very good ($r \cong 0.90$).

If the child's response and movement patterns significantly depart from the norm along a series of parameters, the clinician can make diagnostic statements about the dimensions included in the diagnostic criteria of the American Psychiatric Association, hyperactivity, impulsivity, and inattention (Behavioral Diagnostics, 2008).

The instrument is very new, and the publishers have set a three-year total lease price of $14, 220.00 (2009). There is also a $50.00 fee for each assessment administered.

Pervasive Developmental Disorder (PDD)

Children with a **pervasive developmental disorder** experience severe and pervasive impairment in reciprocal social interactions and communications. These disorders are chronic and will last for the child's whole life. As children with PDD grow up and become adults, many learn to cope with their disorder and live normal lives. Naturally, many adults with severe disabilities spend their adult lives in assisted living environments or in other institutional settings. This was well depicted in the movie, *Rain Man* (Guber & Levinson, 1988).

Frequently, children with PDD exhibit stereotyped behaviors, activities, and interests (American Psychiatric Association, 1994). Of the five disorders classified by the American Psychiatric Association as being pervasive developmental disorders, two have recently been identified by early childhood educators with increasing frequency. These are **autistic disorder** and **Asperger's disorder.**

In 1990, only two children in a thousand were diagnosed with Asperger's disorder or with autism. Today, that number is closer to one in 80 children and about half of the cases are identified as being of the Asperger's type (Gillberg, 2006). One of the differences between the two disorders is mental ability. Asperger's has been described as a high-functioning form of autism (Klin, McPartland, & Volkmar, 2005).

Asperger's Disorder

There is both anecdotal proof and clinical evidence that there is a genetic vulnerability or link to Asperger's disorder and/or autism (Hardman, Drew, & Egan, 2008; Morrow et al., 2008). Parent advocacy groups have claimed that these disorders are caused by childhood vaccinations. Yet, to date there is no scientific evidence of a causal link between vaccines and this form of disability. Case in Point 11.4 provides a true description of a child with this disorder.

Case in Point 11.4

Case of a Child With Asperger's Disorder

A few years ago, a child named Alex was referred by a third grade teacher for assessment by the IEP Committee. Alex was a tall, thin, 10-year-old boy. He did not socialize well with others, and in October asked his teacher to be seated in a back corner of the classroom. That corner was where a series of social studies posters were hung on the walls.

During class a month later, the teacher asked if any child knew their state's flower. Alex, did, and then went on to list the state flowers of the other 49 states. To the teacher's amazement he also knew every state capital and official animal.

An extensive evaluation provided the documentation needed to identify the child as having Asperger's disorder. Interestingly, when his mother heard the description of her son she said that Alex had a younger sibling who exhibited all the same behaviors.

Identification of Asperger's Disorder

Highly educated clinicians normally diagnose Asperger's disorder through interviews with the child and his/her teachers and parents. In 2008, a new identification system developed by Marilyn Monteiro was announced.

Monteiro Interview Guidelines for Diagnosing Asperger's Disorder (MIGDAS)

MIGDAS is a highly scripted series of interviews and structured observations of the child. Western Psychological lists it for $149.00 (2009). In addition to the base price, it requires the examiner purchase a number of toys and other stimuli material for the assessment process.

Guidelines provide structured conversations that a team of clinicians should use with the child, his or her parents, and teachers in collecting data. It also includes a series of stimuli that are age appropriate for children of different developmental levels. Scripted interviews are also provided for the child's teacher and parents. The MIGDAS is a labor-intensive diagnostic system. It requires a team approach to interviewing the child, parents, and teachers.

The MIGDAS provides a series of scores based on data collected during interviews. These include qualitative descriptions of the child covering Language and Communication, Social Relationships and Emotional Responses, and Sensory Use and Interests. The MIGDAS does not provide data about its normative subjects or its reliability and validity. For that reason, it must be only viewed as a way to organize qualitative clinical impressions.

Autistic Disorder

The spectrum of related **autistic spectrum disorders (ASD)** include Kanners disorder, Rett syndrome, childhood autism, infantile autism, and Asperger's disorder (National Institute of Mental Health [NIMH], 2007). Children with autism can be identified as young as 18 months. As infants and toddlers, they squirm away from being hugged or cuddled by a parent. They do not seem interested in what their parents have to say, and rarely speak themselves. Some of these children are identified when their parents have them tested by an audiologist as possibly being deaf. As preschool children, bright lights, new sights, and loud sounds can agitate them. Head banging and severe tantrums are common behaviors among children with autistic disorder.

Manifestation

Autism is usually paired with low cognitive ability (American Psychiatric Association, 1994). In addition, children with autism typically have problems interacting with other people. Children with autism are usually reluctant to make eye contact or smile, and have no interest in playing with others or making friends. At school, children with autism tend to engage in solitary activities. Cognitively low-functioning children with autism may also be classified as having **Kanners disorder** (NIMH, 2007).[11]

Correlational research has demonstrated that children born with low birth weight (less than 2.5 kg) are at a greater risk for developing autism than children in the normal weight range at birth. This effect is most pronounced for boys. Girls born early (less than 33 weeks gestation) are at higher risk for autism, but not boys (Larsson et al., 2005). In general, girls with autism tend to have lower levels of mental ability than is true of boys with the syndrome (Osborne, 2002).

There is also evidence that extreme sensory deprivation during infancy and early childhood can induce an "environmental autism."[12] See Case in Point 11.5 for a true case of a child being deprived to the point of inducing autism.

Case in Point 11.5

Environmentally Induced Autism

On July 13, 2005, a Plant City, Florida, police officer found a filthy, undernourished 6-year-old girl who had lived in a house surrounded by her own feces and covered in bugs. She could not speak, walk, or focus her eyes. The

girl could only take nourishment and water through a baby bottle. She was the daughter of a woman who had a low level of mental ability and various mental issues. The girl had lived in a closet, without clothing or even a bed to sleep upon. The first time she ever left the house was when the police officer carried her to the patrol car and drove her to the emergency room of a medical center.

A pediatric team at Tampa General Hospital cleaned her up and fed her intravenously. She had no discernable physical or neurological problems, but was developmentally far below normal in most dimensions. She was diagnosed as having environmental autism, Kanners type.

After three years of patient parenting by a concerned family, she was able to use the bathroom with assistance, and she could feed herself, but was still without speech and she had other symptoms of severe autism (DeGregory, 2008).

Autism can also be paired with a great talent and give an otherwise mentally deficient child an unexplainable ability to play musical instruments, memorize complex lists such as airline time tables, or do higher calculus while a primary grade student. This combination of autism, low IQ, and a great talent is known as **autistic savant disorder.**

Asperger's disorder is a variation on autism. Children with Asperger's disorder frequently have better social skills than autistic (Kenner's syndrome) children and have above average levels of mental ability. Young children with Asperger's disorder exhibit all the same behaviors of other children, but do so to an extreme level or in an inappropriate format or location. Children with Asperger's disorder also tend to concentrate on a single issue or area of learning and develop a true expertise on the topic. Asperger described these children as, "*kleine Professoren mit einem unglaublichen Wissen von diesem oder von diesem Thema*"[13] (Osborne, 2002). This dimension of Asperger's can lead the child to a productive and full life.

Summary

As recently as the 1970s, children needing special educational services were frequently denied access to public schools. Most children with disabilities ended up being educated in private specialized schools at the expense of parents.

Federal legislation in the 1970s and the record of case law since that time have brought about major policy changes for our schools. Today, the approach known as response to intervention (RTI) is widely employed with young children. It involves having all children screened for possible problems. Children identified with potential learning problems are referred to assistance teams or committees. These are committees of teachers and other specialists. The job of the committees is to recommend alternative instructional approaches for children who require educational assistance and support. If the instructional intervention does not work, he/she can then be referred to a multidisciplinary, individual educational program committee.

Special education is designed to work within an inclusive educational environment structured to provide children with an appropriate educational experience that sets goals for learning and benchmarks for success. Special education is carried out in a minimally restrictive learning environment.

There has been an unexplained spike in the number of children identified with a pervasive developmental disorder. New evidence points to a genetic link as a cause of many forms of PDD. The most common PDD being identified by early childhood educators include the autism spectrum disorders.

Discussion Questions

1. Contact a local school system (or use the district's Internet database) to determine the number of children receiving special education services. Compare this to the district's total population of students. Is the district's data similar to the national data? Identify any differences you have found.

2. How are Section 504 Committees and IEP Committees similar and different? What are the goals of each?

3. What are the advantages and disadvantages of the response to intervention (RTI) approach to assessment?

4. In what ways are children with AD/HD, and children with a reading disability but without AD/HD similar and different?

5. What are the differences between characteristics of children with a PDD such as autism and children with AD/HD?

6. What are reasons a parent of a child with AD/HD would not have the child prescribed a psychotropic drug?

Related Readings

Gargiulo, R. M. (2008). *Special education in contemporary society: An introduction to exceptionality* (3rd ed.). Thousand Oaks, CA: Sage.

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Ostrosky, M. M., & Horn, E. (Eds.). (2002). *Assessment: Gathering meaningful information* (Young Exceptional Children Monograph No. 4). Missoula, MT: Council for Exceptional Children.

Pierangelo, R., & Giuliani, G. A. (2007). *The educator's diagnostic manual of disabilities and disorders*. Hoboken, NJ: John Wiley.

Pierangelo, R., & Giuliani, G. A. (2005). *Assessment in special education* (2nd ed.). Upper Saddle River, NJ: Allyn & Bacon.

Wright, P. W. D., & Wright, P. D. (2007). *Special education law: Wright's law* (2nd ed.). Hartfield, VA: Harbor House Law Press.

Notes

1. Not all 6 million children with special needs are enrolled in public schools. Private schools for children with severe disabilities enroll about 1.5 million.
2. Various names are used for this team of educators and specialists including Student Assistance Team (SAT).
3. Courts can define how and when a law is applied through the interpretation of original statutes. Case law can also be created in answer to a suit of law based on existing statutes and the Constitution. Case law made by the U.S. Courts of Appeals and the U.S. Supreme Court has the force of law for the nation as a whole. Twelve Circuit Federal Courts and the 94 District Federal Courts can make case law for their region of the country. State courts can make case law for their state. Each state has its own supreme court that can make case law for that state, provided it is not in conflict with federal laws or case law.
4. Parent support and advocacy groups for children with disabilities date back to the 1930s; but it was not until the 1960s that needs of disabled children began to be addressed in legislation (Pardini, 2002). In 1965, Title VI of the Elementary and Secondary Education Act included a provision for the establishment of the Bureau for Education of the Handicapped. That small office provided a resource for future legislation that had a huge impact on the education of American children with disabilities.

5. Education was not established as a cabinet-level department of the federal government until the Jimmy Carter administration in 1979 with the passage of Public Law 96-88.
6. State courts, where most cases are heard, have been reluctant to make school systems pay punitive damages when they lose special education cases. For that reason, school systems have been aggressive in challenging parents who want expensive placements for their children with disabilities.
7. Special education services can be provided during the summer break to children with special needs. To qualify for a summer program, the IEP committee must believe the child may lose his/her newly learned skills over summer months unless they are given added summer services. The IEP committee must determine the need for ESY services.
8. The American Psychiatric Association classification is AD/HD, Predominantly Inattention Type, and AD/HD, Predominantly Hyperactive-Impulsive Type. The total package is described as AD/HD, Combined Type.
9. A new system for collecting and quantifying empirical data for the differential diagnosis of AD/HD was developed in 2002 at McClain Medical Center and by physicians at Harvard University's College of Medicine. The behavioral Diagnostics Company in Cambridge, Massachusetts, has marketed that system since 2007. This is the Quotient ADHD System, a computer-assisted individualized measure.
10. The executive function is a cognitive construct describing a mental system that controls and manages other mental processes. Abilities to plan ahead and concentrate are directed by the executive function.
11. Dr. Hans Asperger, a pediatrician in World War II Austria, made the original diagnoses of autism and Asperger's disorders. This went unnoticed for years in English language journals. An American psychiatrist, Dr. Leo Kanner, independently identified the same disorder in 1943. His name was associated with this disorder for the next 50 years. The name of Asperger became the dominant label for the disorder during the 1990s.
12. The first record of experimentally induced autism occurred in the 13th century when Holy Roman Emperor Frederick II had several year-old infants locked away and cared for by a silent order of nuns who were ordered to minimize contact and never speak to, or around, the children. Frederick wanted to see what language God would impart to those not influenced by worldly speech. By adolescence, the members of the silent group were mute and exhibited autistic-like behaviors.
13. Little professors with an incredible knowledge of this or that topic.