

Special Needs in Middle Childhood

Developmental psychopathology is relevant lifelong because “[e]ach period of life, from the prenatal period through senescence, ushers in new biological and psychological challenges, strengths, and vulnerabilities” (Cicchetti, 2013b, p. 458). Turning points, opportunities, and past influences are always apparent.

In middle childhood, the challenge for every child is to learn basic skills. Some children find that mastering academic skills is much more difficult than other children do. Fortunately, most learning problems can be mitigated if treatment is early and properly targeted.

Therein lies the crux of the issue: Although early treatment is best, early and accurate diagnosis is difficult, not only because many disorders are comorbid but also because symptoms differ by age. As you learned in Chapter 4, infants have temperamental differences that might or might not become problems, and in Chapter 6, that aggression and shyness are sometimes normal but sometimes ominous. Difference is not necessarily deficit, but some differences signal that intervention is needed. Which is which?

Two basic principles of developmental psychopathology complicate diagnosis and treatment (Hayden & Mash, 2014; Cicchetti, 2013b). First is **multifinality**, which means that one cause can have many (multiple) final manifestations. For example, an infant who has been flooded with cortisol may become quick to cry or rage or the opposite, unusually placid.

The second principle is **equifinality** (equal in final form), which means that one symptom can have many causes. For instance, a nonverbal first-grader may have autism spectrum disorder, a hearing deficit, no experience in the school language, or extreme shyness.

The complexity of diagnosis is evident in the *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition (American Psychiatric Association, 2013), often referred to as DSM-5. A major problem is recognizing the cutoff between normal childish behavior and pathology. Some suggest that childhood psychopathology was underdiagnosed in early editions of the DSM and is overdiagnosed in DSM-5 (Hayden & Mash, 2014).

Perhaps. Both multifinality and equifinality make early diagnosis complex: Some children are considered pathological when really they are not, while other children are not diagnosed when early diagnosis and intervention would help. The following three examples are a beginning, because everyone needs to know something about children with special needs. Teachers, counselors, doctors, and nurses need to know much more.

ATTENTION-DEFICIT/HYPERACTIVITY DISORDER Someone with **attention-deficit/hyperactivity disorder (ADHD)** is often inattentive, unusually active, and impulsive. DSM-5 says symptoms must start before age 12 (in DSM-IV it was age 7) and must impact daily life. (DSM-IV said *impaired*, not just *impacted*.)

Some impulsive, active, and creative actions are quite normal. However, children with ADHD “are so active and impulsive that they cannot sit still, are constantly fidgeting, talk when they should be listening, interrupt people all the time, can’t stay on task, . . . accidentally injure themselves.” They are “difficult to parent or teach” (Nigg & Barkley, 2014, p. 75).

There is no biological marker for ADHD. Current research, nonetheless, suggests the origin of the disorder is in

multifinality

A basic principle of developmental psychopathology which holds that one cause can have many (multiple) final manifestations.

equifinality

A basic principle of developmental psychopathology that holds that one symptom can have many causes.

attention-deficit/hyperactivity disorder (ADHD)

A condition in which a person not only has difficulty concentrating but also is inattentive, impulsive, and overactive.

A River Is Better Than a

School. People must be quick and active to avoid capsizing in white-water rafting, but these children are up to the task. They have been diagnosed with ADHD, but they are quite able to respond to fast-changing currents.



brain regulation, because of genes, complications of pregnancy, or toxins (such as lead) (Nigg & Barkley, 2014).

ADHD is often comorbid. Explosive rages, later followed by deep regret, are typical for children with many disorders, including ADHD. One surprising comorbidity is deafness: Children with severe hearing loss often are affected in balance and activity, and that seems to make them prone to developing ADHD (Antoine et al., 2013). In this way, ADHD is an example of equifinality; many causes produce one disorder.

U.S. rates of ADHD among children were about 5 percent in 1980. Currently, rates are 7 percent of 4- to 9-year-olds, 13 percent of 10- to 13-year-olds, and 15 percent of all 14- to 17-year-olds (Schwarz & Cohen, 2013). Rates in other nations are lower than in the United States, but rates are rising everywhere (e.g., Al-Yagon et al., 2013; Hsia & MacLennan, 2009; van den Ban et al., 2010). Increasing incidence worries developmentalists for three reasons:

- **Misdiagnosis.** If ADHD is diagnosed when another disorder is the problem, treatment might make the problem worse, not better (Miklowitz & Cicchetti, 2010). Many psychoactive drugs alter moods, so a child with disruptive mood dysregulation disorder (formerly called childhood-onset bipolar disorder) might be harmed by drugs that help children with ADHD.
- **Drug abuse.** Some adolescents may fake ADHD in order to obtain amphetamines with a doctor's prescription. Are 15 percent of U.S. teenagers really hyperactive?
- **Normal behavior considered pathological.** In young children, high activity, impulsiveness, and curiosity are normal. If a normal child is diagnosed with ADHD, might that harm the child's self-concept? Could normal boy behavior be one reason ADHD is at least twice as common in boys as in girls?

Many adults (71 percent in one study) who were diagnosed with ADHD as children say they no longer have the condition (Barbarese et al., 2013). Do people overcome or outgrow ADHD, do adults minimize symptoms, or were these adults misdiagnosed? All are possible.

Treatment for ADHD involves: (1) training for the family and child, (2) special education for teachers, and (3) medication. Each of these three is complicated. As equifinality posits, causes vary, so treatment that helps one child may be wrong for another (Mulligan et al., 2013).

SPECIFIC LEARNING DISORDER The DSM-5 diagnosis of **specific learning disorder** now includes disabilities in both perception and processing of information, evident in unexpected low achievement in reading, math, or writing (including spelling) (Lewandowski & Lovett, 2014). Children with specific learning disorders have difficulty mastering skills that most children acquire easily.

Disabilities in reading, writing, and math undercut academic achievement, destroy self-esteem, and qualify a child for special education (according to U.S. law) or formal diagnosis (according to DSM-5). Hopefully, such children find (or are taught) ways to compensate, and other abilities shine. Winston Churchill, Albert Einstein, and Hans Christian Andersen are all said to have had specific learning disorder.

The most common type of specific learning disorder is **dyslexia**—unusual difficulty with reading. Dozens of types and causes of dyslexia have been identified, so no single strategy helps every child (O'Brien et al., 2012).

Early theories hypothesized that visual difficulties—for example, reversals of letters (reading *god* instead of *dog*) and mirror writing (*b* instead of *d*)—caused dyslexia, but experts now believe that the origin is more auditory (in speech and hearing) than visual (Gabrieli, 2009; Swanson, 2013). Traditionally, dyslexia was not diagnosed until a child with normal IQ, vision, and hearing had difficulty reading. Now dyslexia is recognized at age 5 or earlier.



Download the **DSM-5 Appendix** to learn more about the terminology and classification of childhood psychopathology.

specific learning disorder

A marked deficit in a particular area of learning that is not caused by an apparent physical disability, or by an unusually stressful home environment.

dyslexia

A specific learning disorder characterized by unusual difficulty with reading.



Video: Dyslexia: Expert and Children

<http://qrs.ly/cg4ep0v>





Happy Reading Those large prism glasses keep the letters from jumping around on the page, a boon for this 8-year-old French boy. Unfortunately, each child with dyslexia needs individualized treatment. These glasses help some, but not most, children who find reading difficult.



Video: Current Research into Autism Spectrum Disorder explores why the causes of ASD are still largely unknown.

dyscalculia

A specific learning disorder characterized by unusual difficulty with math.

autism spectrum disorder (ASD)

Any of several conditions characterized by inadequate social skills, impaired communication, and unusual play.

Precious Gifts Many children with autism spectrum disorder are gifted artists. This boy attends a school in Montmoreau, France, that features workshops in which children with ASD develop social, play, and learning skills.



Another specific learning disorder is **dyscalculia**—unusual difficulty with math. For example, when asked to estimate the height of a normal room, second-graders with dyscalculia might answer “200 feet,” or, when asked which card is higher, the 5 or the 8 of hearts, a child might use his or her fingers to count each card’s hearts (Butterworth et al., 2011).

For specific learning disorders, the problem may originate in the brain, but plasticity allows early remediation to improve brain connections before the young child’s eagerness to learn has been crushed by failure. Almost everyone can learn basic skills if they are given extensive and targeted teaching, encouragement, and practice.

AUTISM SPECTRUM DISORDER Of all the children with special needs, those with **autism spectrum disorder (ASD)** are probably the most troubling. Their problems are severe, but both causes and treatments are hotly disputed. As a result, as Thomas Insel, director of the National Institute of Mental Health says, parents and advocates of children with autism spectrum disorder are “the most polarized, fragmented community” (quoted in Solomon, 2012, p. 280).

Many children with ASD show symptoms in the first year of life, but some seem normal and then suddenly regress at about age 2 or 3, perhaps because a certain level of brain development, or a particular medical insult, occurs (Klinger et al., 2014). Most are diagnosed at age 4 or later (MMWR, March 28, 2014), although earlier intervention is best.

Autism spectrum disorder has three characteristics: (1) poor social understanding, (2) impaired language, and (3) unusual play patterns, such as fascination with trains, lights, or spinning objects. In the past, children who developed slowly were usually diagnosed as having a “pervasive developmental disorder” or as “mentally retarded.” (The term “mental retardation,” used in DSM-IV, has been replaced with “intellectual disability” in DSM-5.)

Much has changed. Far more children are diagnosed with autism spectrum disorder, and far fewer with intellectual disability. In the United States, among 8-year-olds, one child in every 68 is said to have ASD (MMWR, March 28, 2014). Rates are five times higher among boys than girls and about one-third higher among European Americans than Hispanic, Asian, or African Americans.

The DSM-5 autism spectrum disorder diagnosis, formerly reserved for children who were mute or violent, now includes mild, moderate, and severe categories. Mildly impaired children with ASD appear normal at first and may be talented in some specialized area, such as drawing or geometry. Many (46 percent) score in the “normal” or “above normal” range on IQ tests (MMWR, March 28, 2014).

Often children with autism spectrum disorder have a hypersensitive sensory cortex: They are unusually upset by noise, light, and other sensations. Hundreds of genes and dozens of brain abnormalities are more common in people with ASD than in the general population.

Why are far more children diagnosed with ASD in 2015 than in 1990? Has the incidence really increased or are children diagnosed who would not have been earlier (Klinger et al., 2014). Children who once were diagnosed with Asperger syndrome are now said to have “autism spectrum disorder without language or intellectual impairment” (American Psychiatric Association, 2013, p. 32). Is that more accurate?

As more is understood, many people wonder whether ASD is a disorder needing cure or an indication that parents and society foolishly expect everyone to be fluent talkers, gregarious, and flexible—the opposite of autism spectrum disorder. If the latter, children are diagnosed too readily. Advocates of **neurodiversity** suggest that the neurological variations should be accepted, appreciated, celebrated—not pathologized (Kapp et al., 2013).

Equifinality certainly applies to ASD: A child can have symptoms for many reasons; no single gene causes the disorder. That makes treatment difficult; an intervention that helps one child is worthless for another.

It is known that biology is crucial (genes, copy number abnormalities, birth complications, prenatal injury, perhaps chemicals during fetal or infant development) and that family nurture does not cause ASD but may modify it. Social and language engagement of the child early in life seems the most promising treatment.

neurodiversity

The idea that people with special needs have diverse brain structures, with each person having neurological strengths and weaknesses that should be appreciated, in much the same way diverse cultures and ethnicities are welcomed.

A VIEW FROM SCIENCE

Drug Treatment for Children

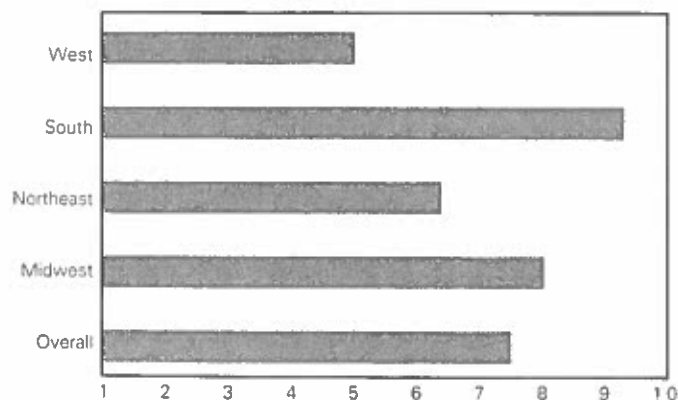
In the United States, more than 2 million people younger than 18 take prescription drugs to regulate their emotions and behavior (see Figure 7.6). The rates are about 14 percent for teenagers (Merikangas et al., 2013), about 10 percent for 6- to 11-year-olds, and less than 1 percent for 2- to 5-year-olds (Olfson et al., 2010).

Drug treatment for children poses a dilemma. Many adults are upset by normal child behavior. Since any physician can prescribe a drug to quiet a child, thousands of children may be overmedicated. But because many parents are suspicious of drugs, refusing to believe that their child needs help (Moldavsky & Sayal, 2013; Rose, 2008), thousands of children may suffer without the drugs they need to learn, make friends, and so on.

FIGURE 7.6 One Child in Every Classroom Or maybe two, if the class has more than 20 students or is in Alabama. This figure shows the percent of 6- to 17-year-olds prescribed psychoactive drugs in the previous six months. About half of these children have been diagnosed with ADHD, and the rest have anxiety, mood, and other disorders. These data are averages, gathered from many communities. In fact, some schools, even in the South, have very few medicated children, and others, even in the West, have many in every class. The regional variations evident here are notable, but much more dramatic are rates by school, community, and doctor—some of whom are much quicker to medicate children than others.

Sometimes drugs are helpful, although not a cure. In one careful study, when children with ADHD were given appropriate medication, carefully calibrated, they were more able to concentrate. However, eight years later, many children on and off medication still had learning difficulties (Molina et al., 2009). Many other studies also find that children with ADHD are likely to have academic and vocational difficulties lifelong (Molina et al., 2013).

Percent of U.S. Children Ages 6–17 Given Medication for Emotional or Behavioral Difficulties During the Last Six Months, by Region



Data from MMWR, May 2, 2014.