PSY339 Problem Behaviors in Children

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Preface

This is my PSY339 Problem Behaviors in Children.

Part I

Neurodevelopmental Disorders

Overview of Neurodevelopmental Disorders

Neurodevelopmental disorders are a group of conditions that begin early in a child's life and involve difficulties in the development of the brain and nervous system. These disorders affect how children learn, communicate, behave, and relate to others. While every child develops at their own pace, neurodevelopmental disorders reflect patterns of delay, difference, or disruption that are persistent, noticeable across contexts, and significant enough to interfere with daily functioning. These conditions often emerge before the child enters elementary school, though some may not be fully recognized until academic or social demands increase. They tend to follow a developmental course, meaning symptoms may change as the child matures, but the underlying vulnerabilities remain.

Despite being grouped together, neurodevelopmental disorders vary widely. Some primarily affect intellectual or cognitive abilities, while others influence language, social communication, attention, motor skills, or behavioral regulation. A key feature across this category is that the difficulties arise from differences in early brain development—not from parenting, lack of effort, or intentional behavior. Neurodevelopmental disorders also commonly co-occur; for example, a child with ADHD may also have a specific learning disorder, or a child with autism spectrum disorder may also experience language impairments. Understanding these disorders requires attention to the child's developmental history, environment, strengths, and challenges so that interventions can be tailored to support long-term growth and functioning.

Neurodevelopmental Disorders (DSM-5-TR):

- Intellectual Developmental Disorder

- Global Developmental Delay

- Unspecified Intellectual Developmental Disorder

- Communication Disorders

    - Language Disorder
    - Speech Sound Disorder
    - Childhood-Onset Fluency Disorder (Stuttering)
    - Social (Pragmatic) Communication Disorder
    - Unspecified Communication Disorder

- Autism Spectrum Disorder

- Attention-Deficit/Hyperactivity Disorder (ADHD)

- Other Specified ADHD / Unspecified ADHD

- Specific Learning Disorder

- Motor Disorders

    - Developmental Coordination Disorder
    - Stereotypic Movement Disorder

- Tic Disorders

    - Tourette's Disorder
    - Persistent (Chronic) Motor or Vocal Tic Disorder
    - Provisional Tic Disorder
    - Other Specified Tic Disorder
    - Unspecified Tic Disorder

- Other Specified Neurodevelopmental Disorder

- Unspecified Neurodevelopmental Disorder

1 Intellectual Disability

1.0.0.1 *Take a Moment: What Do You Think Intellectual Disability Is?*

Take a moment and think about the term Intellectual Disability. What comes to mind? Where did you first hear about it? What images, assumptions, or feelings come up when you hear it? Children and adults with ID are often misunderstood, so pause and notice the ideas you already carry. As you read this chapter, compare your starting point to what the science and real lived experiences actually show.

1.1 What Is Intellectual Disability?

Intellectual Disability (ID), also called *Intellectual Developmental Disorder*, is a neurodevelopmental condition that begins during childhood and affects how a child learns, reasons, and manages everyday life. Children with ID show significant limitations in both intellectual functioning and adaptive functioning across conceptual, social, and practical domains.

ID is not defined by a single test score. Instead, the diagnosis requires a pattern of difficulties that make it challenging for a child to keep up with the thinking, learning, communication, and daily-living expectations of their same-age peers. It is a lifelong condition, but with strong support, many children continue gaining new skills and increasing independence.

1.2 What Does Intellectual Disability Look Like in Children?

Children with Intellectual Disability typically develop more slowly than their peers and may need help learning the same skills that other children pick up naturally. The way ID "looks" can be very different from child to child, depending on their age and the severity of their difficulties.

Below are some child-focused examples of what parents, teachers, or clinicians may notice.

1.2.0.1 Early Childhood (Toddlers and Preschoolers)

- Delays in reaching developmental milestones (walking, talking, play skills)
- Limited vocabulary or difficulty expressing needs
- Trouble following simple instructions
- Difficulty with early play skills like stacking, sorting, or pretend play
- Challenges learning colors, shapes, or counting when peers can
- Difficulty adapting to changes in routine

A preschool example: A 4-year-old cannot follow two-step instructions ("Get your shoes and bring them here"), struggles to remember new routines, and has trouble understanding basic concepts like "big" vs. "small."

1.2.0.2 School-Age Children (Kinder to Middle School)

- Difficulty learning letters, reading, or basic math despite extra help
- Trouble understanding time (yesterday, tomorrow, lunchtime)
- Hard time remembering information from day to day
- Communication that is simpler or more concrete than peers
- Social struggles: misunderstanding jokes, sarcasm, or unspoken rules
- Increased vulnerability to peer pressure or manipulation
- Difficulty completing age-appropriate self-care without prompting

A classroom example: A 9-year-old can read simple words but cannot understand schedules or money. He talks easily but interprets everything literally and is easily misled by classmates who encourage him to "do something funny" to get in trouble.

1.2.0.3 Adolescents (Middle to High School)

- Difficulty planning ahead or organizing schoolwork
- Trouble with independent tasks (public transportation, managing a schedule)
- Limited understanding of social risk or when someone may be taking advantage of them
- Difficulty in workplace-like situations (following multi-step instructions, asking for clarification, managing time)
- Emotional regulation challenges, especially in busy or stressful settings

A teen example: A 15-year-old can dress and bathe independently but cannot make a simple meal or recognize unsafe situations. She becomes overwhelmed by multi-step tasks and depends on adults to navigate social problem-solving.

1.2.0.4 Variation Across Children

Some children with ID have visible characteristics tied to specific genetic conditions (such as Down syndrome), while others appear physically typical. Likewise, strengths and challenges can be uneven: a child might speak clearly but struggle with reasoning, or they may follow routines well but not understand time or numbers. Across all ages, the hallmark is this: the child consistently has difficulty keeping up with the thinking, learning, and daily-living expectations of their same-age peers.

1.3 How Do We Diagnose Intellectual Disability?

Diagnosing Intellectual Disability (ID) requires understanding how a child learns, thinks, communicates, and manages daily life in comparison to their same-age peers. Clinicians do not rely on a single IQ score. Instead, they gather information from multiple settings—home, school, and clinical environments—to build a full picture of the child's strengths and challenges.

A diagnosis requires meeting all three DSM-5-TR criteria: (A) difficulties in intellectual functioning, (B) difficulties in adaptive functioning, and (C) onset during the developmental period. Once these criteria are met, clinicians determine the severity level (mild, moderate, severe, profound) based on adaptive functioning—not IQ—and assign the appropriate DSM diagnostic code.

Below, the diagnostic criteria come first (as in the DSM), followed by the severity levels and their example descriptions, and then the assessment tools.

1.3.1 DSM-5-TR Diagnostic Criteria

A child must meet all three criteria below.

1.3.1.1 Criterion A: Difficulties in Intellectual Functioning

Children with ID show significant challenges in how they think and learn when compared to same-age peers.

These challenges may include the following examples:

- Difficulty understanding cause-and-effect relationships

    - *Example: A child may not understand that pushing another child will cause them to fall, or that forgetting homework leads to a consequence.*

- Problems with planning, organizing, or abstract thinking

- *Example: A child may not know where to start when told to clean their room, or struggles to understand ideas like "before" and "after."*

- Learning new information slowly despite repetition

  - *Example: A child may need many more repetitions than peers to remember the days of the week or basic classroom routines.*

- Trouble applying learned skills to new situations (generalization)

  - *Example: A child who learns to zip their coat at home may not be able to do it at school unless prompted the same way.* (generalization)

- Difficulty with concepts such as time, money, measurement, or numbers

  - *Example: A child may not understand how long "five minutes" is, or may think that a larger-sized coin is always worth more.*

These difficulties are identified through a combination of:

- Clinical judgment
- Developmental history
- Standardized testing (e.g., WISC-V)

1.3.1.2 Criterion B: Difficulties in Adaptive Functioning

Adaptive skills are the everyday abilities children use to navigate life at home, school, and in the community. These skills must be significantly below expectations for the child's age, cultural background, and opportunities.

Adaptive functioning is divided into three domains:

1. Conceptual Domain (Academic & Cognitive Skills)

Children may:

- Struggle with reading, writing, or math

  - *Example: A child may only recognize a few letters or numbers when classmates are reading simple books or doing basic addition.*

- Have difficulty remembering routines or multi-step directions

  - *Example: A child may forget the steps for getting ready for recess unless an adult gives each step one at a time.*

- Use simpler or more concrete language than peers

  - *Example: A child may describe things in very basic terms and struggle to explain ideas beyond the literal meaning.*

- Take longer to learn new ideas or classroom concepts

  - *Example: A child may need many more repetitions than classmates to understand place value or how to tell time.*

2. Social Domain (Communication, Social Understanding, Judgment)

Children may:

- Misinterpret tone, sarcasm, jokes, or figurative language

  - *Example: A child may think someone saying "break a leg" is literally wishing them harm.*

- Struggle to understand facial expressions or social cues

  - *Example: A child may not notice when a peer looks annoyed or wants to end a conversation.*

- Be overly trusting or easily influenced by peers (gullibility)

  - *Example: A child may give away their lunch or belongings because a peer told them it was a "game."*

- Have trouble recognizing unsafe people or situations

  - *Example: A child may approach strangers without hesitation or follow someone into an unsafe area without understanding the risk.*

3. Practical Domain (Daily Living & Independence)

Children may:

- Need help with hygiene, chores, or organization

  - *Example: A child may forget to brush their teeth or need step-by-step prompting to clean their room.*

- Struggle with time management or money concepts

  - *Example: A child may not know how long ten minutes is or may not understand which coins add up to a dollar.*

- Have difficulty preparing simple meals or following safety rules

  - *Example: A child may not remember to turn off the stove or may microwave metal without recognizing danger.*

- Need support with transportation, schedules, or personal belongings

  - *Example: A child may lose items frequently or may not know which bus to take without direct supervision.*

1.3.1.3 Criterion C: Onset During the Developmental Period

The child's difficulties must begin in childhood or adolescence, even if they are not formally recognized until later.

This criterion distinguishes ID from:

- Traumatic brain injury

  - *Example: A child who develops cognitive problems only after a car accident would not meet criteria for ID because development had been typical before the injury.*

- Stroke

  - *Example: A child who loses language or problem-solving skills after a stroke shows an acquired condition, not ID.*

- Degenerative conditions that occur **after** a period of typical development

  - *Example: A teen who begins to decline due to a neurological disease had previously age-appropriate development and therefore would not be diagnosed with ID.*

Criterion What It Means Key Features Simple Example			
Criterion A — Intellectual Function- ing	Difficulties with thinking, learning, reasoning, and problem-solving	Trouble with abstract thinking, slow learning, difficulty applying knowledge	A child needs many more repetitions to learn routines and struggles to understand concepts like time or cause-and-effect

Criterion What It Means Key Features Simple Example			
Criterion B — Adaptive Function- ing	Everyday skills needed for independence at home, school, and in the community	Challenges in conceptual, social, and/or practical domains	A child speaks in sentences but cannot manage simple chores without step-by-step support and misunderstands social cues
Criterion C — Devel- opmental Onset	Difficulties begin in childhood or adolescence	Not due to injury, illness, or decline after typical development	A child has shown delays since early childhood rather than losing abilities after a medical event

1.3.2 Severity

Once criteria A, B, and C are met, clinicians determine ID severity to determine the formal diagnosis. Severity is based on adaptive functioning, that is everyday abilities children use to navigate life at home, school, and in the community, and not based on any one assessment of IQ.

Below are DSM-aligned descriptions for each level.

1.3.2.1 Mild

Children with mild ID:

- Learn academic skills up to ~6th-grade level with support
- Communicate in full sentences but may be concrete or immature
- May need help with planning, money management, and complex tasks
- Are more vulnerable to peer influence or exploitation
- Often achieve some independence in adulthood with support

Example: A 12-year-old with mild ID attends general education classes with resource support. She can follow classroom routines but needs reminders to stay on task and help with time management for a school project. She makes friends but may agree to do things classmates suggest without understanding the consequences.

1.3.2.2 Moderate

Children with moderate ID:

- Learn academic skills at an elementary level
- Benefit from extended teaching and repetition
- Communicate basic needs but have limited social understanding
- Need ongoing support for self-care and daily routines
- Often succeed in supported work or structured environments

Example: A 10-year-old with moderate ID can complete simple chores like sorting laundry or wiping tables when given step-by-step instructions. He communicates using short phrases and relies on adults to help him transition between activities or solve unexpected problems.

1.3.2.3 Severe

Children with severe ID:

- Have very limited academic abilities
- Use simple speech or rely on gestures to communicate
- Need help with all daily living tasks, including hygiene and meals
- Require close supervision for safety
- Often have co-occurring motor or health conditions

Example: A 9-year-old with severe ID uses single words and gestures to communicate basic needs. She requires full assistance with dressing, feeding, and toileting, and she may become unsafe without close supervision because she does not recognize hazards like traffic or hot surfaces.

1.3.2.4 Profound

Children with profound ID:

- Have minimal intellectual functioning and limited symbolic communication
- Often rely entirely on caregivers for all aspects of daily living
- Require 24/7 supervision
- Many have significant motor, sensory, or medical challenges

Example: A 7-year-old with profound ID relies entirely on caregivers for mobility, feeding, and communication. He may respond to familiar voices with sounds or facial expressions but cannot perform any daily living tasks independently and requires constant monitoring for medical and safety needs.

Severity Level	Conceptual Function-ing	Social Functioning	Practical Functioning	Simple Child Example
Mild	Delays in academic skills; may reach ~6th-grade level	Immature social interactions; concrete communication	Needs support with planning and complex tasks	A child keeps up in class with resource support but needs help organizing assignments and understanding peer intentions
Moderate	Academic skills at elementary level	Limited social understanding; needs modeling and repetition	Requires ongoing help in daily routines	A child can complete simple chores with guidance and communicates with short phrases but struggles to solve unexpected problems
Severe	Very limited academic abilities	Simple speech or gestures; relies on familiar contexts	Assistance needed for all self-care; close supervision required	A child uses single words, needs full help for hygiene/meals, and does not recognize common hazards
Profound	Minimal conceptual abilities; mostly non-symbolic	Strong reliance on nonverbal cues; relationships limited to familiar caregivers	Dependent on others for all daily living tasks	A child responds to familiar voices but cannot perform any daily-living skill independently and requires constant monitoring

1.3.2.5 Other DSM Codes

- **Global Developmental Delay:** used only in children under age 5 when full testing cannot yet determine severity. This diagnosis applies when a child shows significant delays in multiple developmental areas (motor, language, social, or cognitive) but is too young for reliable standardized testing. Many children with F88 later receive a more specific diagnosis once older.
- **Unspecified Intellectual Disability:** used when accurate assessment is not possible (e.g., due to severe behavioral, sensory, or physical limitations). This diagnosis is appropriate when a clinician has strong reason to believe the child meets criteria for ID but cannot obtain standardized scores due to factors such as extreme distress, limited language exposure, or medical complications that interfere with testing.

1.3.3 Assessment Tools Used in Diagnosis

A high-quality evaluation integrates multiple tools, each offering different information. *No diagnosis of Intellectual Disability is ever made based on an IQ score or any single test!* Instead, clinicians combine results from several assessments to understand the child's full developmental profile. Below are the main types of assessments with brief descriptions.

1.3.3.1 Intellectual Functioning Tests

These measure problem solving, reasoning, memory, processing speed, and verbal/nonverbal skills.

- **Wechsler Intelligence Scale for Children WISC-V (ages 6–16):** The most commonly used child intelligence test; provides scores across verbal comprehension, visual-spatial reasoning, working memory, and more.
- **Wechsler Preschool and Primary Scale of Intelligence, WPPSI-IV (ages 2.5–7.5):** A preschool version of the Wechsler scales that uses play-based tasks to measure emerging reasoning and language skills.
- **Wechsler Adult Intelligence Scale**, **WAIS-IV (older adolescents)**: Measures adult-level reasoning and cognitive abilities.
- **Stanford-Binet 5:** Covers a wide age range (infancy to adulthood) and assesses verbal and nonverbal reasoning.
- **Kaufman Assessment Battery for Children,KABC-II:** A culturally sensitive test emphasizing learning processes and problem solving rather than acquired knowledge.

1.3.3.2 Adaptive Functioning Tests

These measure how children manage real-world tasks across settings.

- **Vineland-3:** Collects caregiver and teacher ratings in communication, daily living, socialization, and motor skills.
- **Adaptive Behavior Assessment System, ABAS-3:** Provides a detailed profile across conceptual, social, and practical skills based on multiple informants like parents and teachers.

1.3.3.3 Developmental & Supplemental Evaluations

- **Bayley Scales of Infant Development:** Standard tool for infants/toddlers assessing cognitive, motor, and language development.
- **Speech-language evaluations:** Examine expressive/receptive language, pragmatic skills, and communication patterns.

- **Occupational therapy assessments:** Evaluate fine-motor skills, daily living skills, and sensory needs.
- **Genetic/medical testing:** Used when features suggest a syndrome (e.g., Down syndrome, Fragile X).
- **Psychoeducational school evaluations:** Provide academic data and help determine special education supports.

Together, these methods offer a comprehensive understanding of how a child functions, learns, communicates, and navigates their environment. The goal is always to understand the whole child, not to reduce them to a score.

1.3.4 Differential Diagnosis

Distinguishing Intellectual Disability from other developmental or medical conditions is an essential and one of the most difficult parts of diagnosis. Many conditions share overlapping features, especially during early childhood, so clinicians must look closely at developmental history, specific skill patterns, and the child's everyday functioning.

Autism Spectrum Disorder (ASD) Children with ASD may also display communication delays, social difficulties, and repetitive behaviors, which can overlap with the presentation of Intellectual Disability. The key difference is that a child with ASD might understand complex concepts but still struggle with back-and-forth conversation. A child with ID struggles with conversation because their language and reasoning skills are delayed overall.

Specific Learning Disorder (SLD) A child with SLD has difficulty in one particular academic area—such as reading—while their thinking, reasoning, and daily-living skills remain age-appropriate. A child with ID, however, might have difficulty not only in reading or math but also in remembering daily steps for getting ready for school or understanding simple social expectations, indicating challenges across multiple developmental domains.

Communication Disorders Children with communication disorders may have delayed speech or trouble forming sentences. However, their reasoning and problem-solving abilities are age-appropriate, unlike in ID. A child with a communication disorder may speak in short, simple sentences and has trouble pronouncing certain sounds, but can follow age-appropriate instructions and solve puzzles just like peers. Their challenges are specific to language, not thinking or learning overall.

Major or Mild Neurocognitive Disorder These conditions involve decline *after* a period of normal development, most often after injury or illness. ID must begin during the developmental period, not after typical development. A child with a neurocognitive disorder may start forgetting familiar routines, losing problem-solving skills, and struggling with tasks they previously mastered after a severe infection. Because the decline happened after a period of typical development, this pattern suggests a neurocognitive disorder rather than ID.

1.3.5 Comorbidities

Many children with Intellectual Disability have additional developmental, medical, or psychiatric conditions. Recognizing comorbidities helps clinicians understand the child's full profile and plan appropriate supports. You'll notice some of the same conditions mentioned above are both in differential diagnosis and again here in comorbidities. The distinction is this: in differential diagnosis, clinicians ask, "Is this symptom better explained by another disorder instead of Intellectual Disability?" In comorbidity, clinicians recognize that a child can have both Intellectual Disability and another condition at the same time. These co-occurring conditions can shape the child's presentation, strengths, challenges, and support needs.

1.3.5.1 Neurodevelopmental Comorbidities

- **Autism Spectrum Disorder:** Co-occurs in a significant portion of children with moderate to severe ID.
- **ADHD:** High rates of inattention, impulsivity, or activity-level differences.
- **Communication Disorders:** Delays in expressive or receptive language.
- **Motor Disorders:** Including coordination difficulties or cerebral palsy.

1.3.5.2 Medical and Neurological Comorbidities

- **Epilepsy:** Common among children with moderate to profound ID.
- **Hearing or visual impairments:** May further impact communication and learning.
- **Genetic syndromes:** Such as Down syndrome, Fragile X, or Williams syndrome.
- **Sleep problems:** Difficulty falling or staying asleep.

1.3.5.3 Psychiatric Comorbidities

- **Anxiety disorde**
- **Depressive symptoms or mood disorders**
- **Behavioral challenges:** tantrums, aggression, self-injury (often triggered by communication frustrations)

Understanding comorbidities allows clinicians to design more individualized and effective intervention plans. It's also important to remember that differential diagnosis and comorbidity are not always fixed. Many developmental conditions blur together, evolve over time, or reveal new patterns as a child grows. Early testing can be unreliable, symptoms may shift with age, and some children show features of multiple disorders without fitting neatly into any single label. Clinicians use the best available information, but these distinctions are rarely perfect—and reassessment is a normal and could be part of high-quality care.

1.4 Contributing Factors

Understanding the contributing factors of Intellectual Disability (ID) helps clarify why children's developmental paths can differ so widely. ID does not have a single cause. Instead, it can arise from a range of genetic, biological, and environmental factors that affect brain development during the developmental period. These influences may occur before birth, during birth, or after birth in early childhood.

A key distinction in diagnosis is whether a child's developmental challenges began before they had achieved age-expected thinking, language, or problem-solving skills. When a disruption occurs very early—during pregnancy, birth, or infancy—the child may never reach typical developmental milestones, and ID may be the appropriate diagnosis. When an injury or illness happens after a period of typical development, the resulting difficulties are considered an acquired condition rather than ID.

Importantly, knowing the cause does not predict a child's potential. Children with the same identified cause may have very different strengths, challenges, and developmental trajectories.

1.4.0.1 Genetic Factors

Some children develop ID because of genetic variations that affect how the brain develops. These variations may occur spontaneously or be inherited.

Common genetic causes include:

- **Down syndrome**: occurs when a child has an extra copy of chromosome 21. Children often have strengths in social engagement but may have slower language development and unique health needs.
- **Fragile X syndrome**: the most common inherited cause of ID, often associated with attention difficulties, anxiety, and social challenges.
- **Williams syndrome**: a rare condition involving a deletion on chromosome 7, often associated with strong verbal and social skills but significant challenges with spatial reasoning and math.

Some genetic conditions also come with behavioral phenotypes, meaning predictable patterns of strengths and challenges. For example, children with Down syndrome often have strong social interest and visual learning skills, while children with Fragile X may be more sensitive to sensory input.

1.4.0.2 Prenatal Factors (Before Birth)

Many causes of ID occur during pregnancy, when the brain is developing rapidly. These factors can disrupt brain development at a critical time, leading to global developmental delays.

Examples include:

- Infections during pregnancy (such as Zika virus, rubella, or cytomegalovirus)
- Exposure to alcohol (Fetal Alcohol Spectrum Disorder)
- Exposure to certain medications or toxins like lead
- Severe maternal malnutrition
- Complications with placental function that limit oxygen or nutrients to the developing brain

1.4.0.3 Perinatal Factors (During Birth)

Sometimes ID is related to problems that occur during labor or delivery. Not every difficult birth leads to long-term challenges, but severe events can increase the risk for ID.

Common examples:

- Lack of oxygen at birth (birth asphyxia)
- Traumatic delivery complications, such as brain bleeding
- Extremely premature birth, especially when combined with medical complications like brain bleeds or prolonged ventilation

1.4.0.4 Postnatal Factors (After Birth)

Some causes of ID occur after a child is born, particularly in the first few years of life when the brain is developing rapidly. During infancy and early toddlerhood, the brain has not yet established stable patterns of intellectual functioning. When a serious injury or illness happens at this stage, the child may never develop typical cognitive skills, and ID can be the correct diagnosis.

Examples include:

- Serious infections, such as meningitis or encephalitis
- Head injuries, including those from accidents or abuse
- Severe untreated seizures beginning in infancy
- Malnutrition during early childhood
- Drowning or near-drowning incidents leading to lack of oxygen
- Exposure to toxins like lead

These events can interrupt development so early that the child does not reach age-expected thinking and adaptive skills. However, when similar injuries or illnesses occur later in childhood, after a period of typical development has already occurred, the diagnosis shifts. In those cases, the child is considered to have an acquired condition, such as a neurocognitive disorder, rather than ID.

1.4.0.5 Why Causes Matter (and Why They Don't)

Understanding the cause can help:

- identify medical conditions that need monitoring
- guide early intervention and educational planning
- support families with accurate information

But the cause does not determine how much a child can learn or how independent they can become. Children with the same diagnosis may have very different strengths, needs, and developmental paths.

The focus of treatment and support is always on helping each child grow to their fullest potential, regardless of the underlying cause.

1.5 How Do We Treat Intellectual Disabilities?

Treatment for Intellectual Disability (ID) focuses on supporting the child's development, communication, independence, and well-being. It does not aim to "fix" or eliminate the disability. Instead, the goal is to help the child learn skills that improve daily life while supporting families and caregivers in understanding how the child learns best.

Early Intervention and Therapies: For infants and toddlers, early intervention services can have a powerful impact on communication, learning, and motor development. These services often include applied behavior analysis, speech-language therapy, occupational therapy, physical therapy, and developmental specialists who work directly with families.

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Educational and Behavioral Supports: Children with ID often learn best with structured instruction, clear routines, and repeated practice. In school, support is provided through an Individualized Education Program (IEP), which outlines goals, accommodations, and services based on the child's developmental needs.

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Helpful approaches may include:

- breaking tasks into small steps
- using visual supports or schedules
- modeling and guided practice
- behavior strategies that reinforce new skills and reduce frustration
- positive behavior supports across school and home settings

These strategies help children understand expectations, navigate learning tasks, and build confidence.

Medical Care and Monitoring: Many children with ID have co-occurring medical needs. Regular checkups and specialist care can address conditions such as seizures, vision or hearing differences, sleep challenges, or gastrointestinal problems. Effective medical management often improves learning, behavior, and overall quality of life.

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Support for Families: Families play an essential role in a child's progress. Parent coaching, community resources, and support groups help caregivers better understand the child's developmental profile and learn strategies that reduce stress and support growth. Caregiver support may include learning communication or behavior strategies, connecting with respite services, and finding local or online support communities. When families feel supported, children benefit directly.

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Preparing for Adolescence and Adulthood: As children with ID grow older, treatment includes planning for increased independence. Transition planning focuses on life skills, vocational experiences, community participation, and safety. Teens may learn skills such as preparing simple meals, using public transportation with support, managing personal hygiene routines, and practicing workplace behaviors in supported settings.

As children with ID grow older, treatment includes planning for increased independence. Transition planning focuses on life skills, vocational experiences, community participation, and safety. Teens may learn skills such as preparing simple meals, using public transportation

with support, managing personal hygiene routines, and practicing workplace behaviors in supported settings.

The Overall Goal: The purpose of treatment is not to change who a child is, but to help them participate more fully in the world. With the right supports, children with ID can form meaningful relationships, engage in their communities, and build the skills needed for greater independence throughout childhood and beyond.

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1.6 What Is the Prognosis?

Prognosis describes how a child's abilities and support needs may change over time. Intellectual Disability (ID) is lifelong, but development continues throughout childhood, adolescence, and adulthood. Children with ID do not stop learning; instead, they gain skills at a slower pace and often with more structured support.

Most children with ID make progress in communication, social understanding, and daily living skills, though the amount and pace of progress vary widely. Some children learn to follow routines, express their needs more clearly, participate in community or school activities, and develop relationships. Others—especially those with severe or profound ID—may rely on caregivers for all daily tasks and continue to need intensive support throughout life. Early intervention, access to specialized educational services, and consistent routines at home can support developmental gains.

As children grow older, their strengths and support needs become more apparent. Many adolescents and adults with mild ID can work in supported or competitive employment, live with limited supervision, and participate actively in their communities. Individuals with moderate ID often benefit from structured vocational settings and assistance with daily living. Those with severe or profound ID typically require ongoing help with communication, self-care, medical needs, and safety.

1.7 Prevalence and Statistics

Intellectual developmental disorder has an overall general population prevalence of approximately 10 per 1,000, or about 1%. Prevalence varies internationally: around 16 per 1,000 in middle-income countries and about 9 per 1,000 in high-income countries. In the United States, prevalence does not vary significantly across different racial groups.

1.8 Reflection

At the beginning of this chapter, you were asked to reflect on what you thought Intellectual Disability was and where those ideas came from. Now that you've learned more about diagnostic criteria, causes, prognosis, and supports, consider:

1. How have your initial assumptions or impressions changed, if at all? What surprised you as you moved through this chapter?
2. What questions do you still have about ID, its diagnosis, or the experiences of children and families? What would you want to explore further?

1.9 Discussion Questions

1. How might a child's environment (family routines, school expectations, community resources) influence the way Intellectual Disability shows up in daily life?
2. Why is it important that ID is diagnosed based on adaptive functioning rather than an IQ score alone? What kinds of misunderstandings could happen if we relied only on test scores?
3. How does the timing of a developmental disruption (before birth, during birth, early childhood, later childhood) shape whether a condition is diagnosed as ID or something else?
4. Consider two children with the same severity level of ID but different strengths. How might their day-to-day support needs differ? What does this tell us about individualized planning?
5. How might cultural beliefs or expectations influence when a child is identified, what supports they receive, or how families understand the diagnosis?

These questions encourage you to think about ID not only as a diagnostic category but as a lived developmental experience shaped by support, context, and opportunity.

1.10 Key Terms

Adaptive Functioning: Everyday skills needed for independence at home, at school, and in the community, including the conceptual, social, and practical domains.

Behavioral Phenotype: A predictable pattern of strengths and challenges associated with certain genetic conditions, such as Down syndrome or Fragile X syndrome.

Conceptual Domain: Academic and cognitive abilities such as language, reading, writing, memory, math, and reasoning.

Developmental Period: The time from birth through adolescence during which the features of ID must originate. Conditions that begin after typical development do not fall under ID.

Early Intervention: Services for infants and toddlers that support communication, motor development, and early learning through family-centered approaches.

Global Developmental Delay: A temporary diagnosis used for children under age five who show significant delays in multiple developmental areas when severity cannot yet be reliably measured.

Intellectual Disability (ID) / Intellectual Developmental Disorder: A neurodevelopmental condition involving significant difficulties in intellectual functioning and adaptive functioning, beginning during the developmental period.

Intellectual Functioning: Thinking skills such as reasoning, problem-solving, planning, abstract thinking, judgment, and learning from experience.

Practical Domain: Daily living skills such as hygiene, dressing, meal preparation, organization, safety, time, and money management.

Severity Levels (Mild, Moderate, Severe, Profound): A classification based on adaptive functioning that describes the support an individual may need across conceptual, social, and practical areas.

Social Domain: Skills related to social communication, understanding cues, judging social situations, and recognizing risks or exploitation.

2 Specific Learning Disorder

2.0.0.1 *Take a Moment: What Do You Think Specific Learning Disorder Is?*

Take a moment to consider what it means for a child to struggle with reading, writing, or math in a way that is far beyond typical learning differences. What do you already believe causes learning challenges, and how do we distinguish between a disorder and normal variation in learning?

2.1 What Is Specific Learning Disorder?

Specific Learning Disorder (SLD) is a neurodevelopmental condition in which a child has persistent difficulties learning and using academic skills. These challenges are unexpected compared to the child's age, intelligence, and educational exposure. SLD involves problems in one or more domains: reading, written expression, or mathematics. These difficulties are not due to lack of instruction, intellectual disability, vision or hearing problems, or other external factors. Instead, the child struggles despite adequate teaching and opportunity.

2.2 What Does Specific Learning Disorder Look Like in Children?

Children with SLD may show early and ongoing academic struggles that do not improve at the expected rate, even with support. Teachers often notice these difficulties first. The specific pattern depends on the area of impairment.

- **With impairment in reading**

    - *Example: A child reads slowly, mispronounces words, or has trouble understanding what they read.*

- **With impairment in written expression**

    - *Example: A child frequently misspells words, writes in disorganized sentences, or avoids writing tasks.*

- **With impairment in mathematics**

– *Example: A child struggles to understand quantities, memorize math facts, or carry out multi-step calculations.*

2.3 How Do We Diagnose Specific Learning Disorders?

Diagnosis requires a careful and comprehensive evaluation that includes standardized testing, academic history, teacher reports, and evidence that the difficulties have persisted for at least 6 months despite targeted intervention. Symptoms must significantly interfere with academic performance and cannot be better explained by other disorders.

2.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Difficulties learning and using academic skills, lasting at least 6 months despite interventions. These may include inaccurate or slow reading, poor written expression, or difficulty with number sense and calculations.

- *Example: A child continues to read far below grade level even after receiving reading support throughout the school year.*

Criterion B: The affected skills are substantially below what is expected for age and significantly interfere with academic or daily functioning.

- *Example: A middle school student avoids writing due to extreme difficulty organizing sentences.*

Criterion C: The learning difficulties begin during school-age years, though they may not become fully evident until academic demands increase.

Criterion D: The difficulties are not better explained by intellectual disability, uncorrected vision or hearing problems, neurological disorders, psychosocial adversity, or inadequate instruction.

2.3.2 Specifiers

- **With impairment in reading**
- **With impairment in written expression**
- **With impairment in mathematics**

Each specifier can be further clarified by noting the area of difficulty (e.g., word reading accuracy, spelling accuracy, number sense).

2.3.3 Current Severity Level

Severity is classified as mild, moderate, or severe based on the degree of impairment and the level of support required.

Severity Level	Description	Example (same scenario, increasing in severity)
Mild	Difficulties in one or two academic areas; child can succeed with some targeted support.	A child struggles with decoding unfamiliar words but can read simple texts with guidance.
Moderate	Clear and persistent difficulties across academic tasks; requires ongoing, intensive intervention.	A child reads significantly below grade level and becomes frustrated without step-by-step support.
Severe	Pervasive, longstanding difficulties in multiple domains; requires comprehensive, individualized instruction and accommodations.	A child cannot read grade-level material at all, avoids reading entirely, and requires specialized instruction daily.

2.3.4 Assessment Tools Used in Diagnosis

Assessment includes reports from parents and teachers as well as standardized, norm-referenced tests that evaluate academic skills, cognitive processes, and related areas of functioning. These tools help determine whether a child's performance is significantly below expectations and whether the pattern fits an SLD profile rather than another cause.

- **Woodcock–Johnson Tests of Achievement (WJ)**: Measures reading, writing, and math skills in detail, allowing comparison across academic domains.
- **Wechsler Individual Achievement Test (WIAT)**: Assesses academic achievement with subtests targeting decoding, spelling, written expression, and math fluency.
- **Kaufman Test of Educational Achievement (KTEA)**: Evaluates academic abilities and provides error analyses useful for intervention planning.
- **Comprehensive Test of Phonological Processing (CTOPP)**: Measures phonological awareness, memory, and rapid naming, often impaired in reading disorders.
- **KeyMath Diagnostic Assessment**: Provides detailed information on mathematical concepts, operations, and applications.

Together, these assessments help clinicians identify the specific learning profile, rule out alternative explanations, and guide targeted intervention.

2.3.5 Differential Diagnosis

Differential diagnosis involves distinguishing SLD from other conditions that can also affect academic performance. Intellectual disability, uncorrected vision or hearing problems, neurological disorders, ADHD, anxiety, and inadequate instruction must be ruled out. While these conditions may coexist with SLD, they do not fully account for the specific academic deficits seen in reading, writing, or mathematics.

2.3.6 Comorbidities

Children with SLD often have co-occurring disorders. ADHD is one of the most common, especially with reading and written expression difficulties. Anxiety disorders may develop due to repeated academic frustration. Language disorders and motor coordination difficulties may also appear alongside SLD. Comorbidity can complicate assessment and may require integrated treatment planning.

2.4 Contributing Factors

SLD results from a combination of genetic and environmental influences that affect brain development and the neural processes involved in reading, writing, and math. Research shows strong heritability patterns, with reading-related impairments especially likely to run in families, and environmental factors such as early educational access, language exposure, socioeconomic stressors, prenatal exposures (including air pollution, lead, nicotine, or alcohol), prematurity, and perinatal complications may influence how strongly symptoms manifest, though they do not cause the disorder on their own.

2.5 How Do We Treat Specific Learning Disorder?

Treatment focuses on targeted academic interventions, skill-building, and support accommodations. Approaches are individualized based on the child's specific area of impairment.

Structured Literacy Approach: These techniques use explicit, sequenced instruction to build foundational reading skills such as phonics, decoding, and comprehension.

Writing Interventions: Programs focus on sentence-building, grammar practice, organization strategies, and guided writing routines.

Mathematics Interventions: Instruction emphasizes concrete-to-abstract learning, repetition, visual supports, and strategies for solving multi-step problems.

Classroom Accommodations: Examples include extended time, reduced-writing assessments, audiobooks, graphic organizers, or breaking assignments into steps.

Multidisciplinary Support: Collaboration between teachers, psychologists, special educators, and families helps maintain consistency across environments.

The Overall Goal: The overarching aim of treatment is to help children build the academic skills they need to access learning, increase confidence, and participate successfully in school by providing targeted instruction, appropriate accommodations, and long-term support as needed.

2.6 What Is the Prognosis?

With early identification and effective intervention, many children make substantial gains, though they may continue to need academic support. Without intervention, difficulties often persist into adolescence and adulthood. Long-term outcomes improve significantly when children receive structured instruction, supportive learning environments, and appropriate accommodations.

2.7 Prevalence & Statistics

Specific Learning Disorder in reading, writing, and mathematics affects roughly 5-15% of school-age children.
Reflection

Consider how learning differences show up in the classroom. How might a child's struggles be misunderstood as lack of effort rather than a neurodevelopmental disorder?

1. Which early signs might help teachers recognize SLD sooner?
2. How could early intervention change a child's long-term educational pathway?

2.8 Discussion

1. Why is it important to distinguish SLD from typical learning variability?
2. How does socioeconomic context influence the identification of SLD?
3. What challenges arise when diagnosing SLD in multilingual learners?
4. What does effective collaboration between teachers and clinicians look like?
5. How can stigma around learning differences be reduced in educational settings?

2.9 Key Terms

Accommodation: Supports or adjustments that reduce barriers to learning without changing academic expectations.

Criterion: A specific requirement that must be met for a clinical diagnosis.

Intervention: A structured instructional or therapeutic technique designed to improve a child's academic skills.

Number Sense: An understanding of numerical quantity and relationships.

Specific Learning Disorder: A neurodevelopmental disorder involving persistent difficulties in reading, writing, or math.

Structured Literacy: An instructional approach using explicit, systematic teaching of reading-related skills.

Targeted Instruction: Teaching that focuses directly on a child's specific area of academic difficulty.

3 Communication Disorders

3.0.0.1 *Take a Moment: What Do You Think Communication Disorders Are?*

Children communicate long before they speak, and many different skills must come together for communication to work smoothly. Before you read further, take a moment to think about what makes communication challenging for some children and which parts of communication (speech, language, or social use) might be affected.

3.1 What Are Communication Disorders?

Communication disorders involve difficulties in how children produce speech sounds, use language, or communicate effectively with others. Speech refers to how sounds are made and includes articulation, fluency, and voice quality. Language refers to how children understand and use words or symbols to express ideas. Within language, receptive skills involve understanding words, sentences, and directions, while expressive skills involve producing words, sentences, and messages to communicate needs or ideas. Communication is the broadest category and includes any behavior—verbal or nonverbal—that sends information to someone else.

Communication disorders include several diagnoses: language disorder, speech sound disorder, childhood-onset fluency disorder (stuttering), social (pragmatic) communication disorder, and unspecified communication disorder. Although each one looks different, all involve disruptions in how children express themselves, understand others, or navigate social communication. These disorders often appear alongside other neurodevelopmental conditions such as autism spectrum disorder, ADHD, or learning disorders.

3.2 What Do Communication Disorders Look Like in Children?

Communication disorders can affect a child's ability to be understood, share ideas, follow conversations, or use language appropriately in different settings. Severity varies widely: some children have mild sound-production errors, while others experience significant breakdowns in language or social communication.

3.2.1 Language Disorder

- Difficulties with vocabulary, grammar, or sentence structure

    – *A child uses very short or simple sentences compared with peers.*

- Problems understanding spoken language

    – *A child struggles to follow multi-step directions unless they are broken down.*

- Impaired narrative skills

    – *A child cannot retell a simple story in order.*

3.2.2 Speech Sound Disorder

- Sound production errors that make speech difficult to understand

    – *A child says "wabbit" for "rabbit" or leaves off final sounds.*

- Difficulty coordinating movements needed for speech

    – *A child becomes hard to understand when speaking quickly or excitedly.*

- Persistent speech errors beyond the expected age

    – *A 7-year-old still substitutes "th" for "s" in most words.*

3.2.3 Childhood-Onset Fluency Disorder (Stuttering)

- Repetitions, prolongations, or blocks during speech

    – *A child repeats the first sound of a word several times before continuing.*

- Speech interruptions that increase with stress or excitement

    – *A child's stuttering becomes more noticeable during classroom presentations.*

- Secondary behaviors or avoidance

    – *A child avoids answering questions in class to hide their stuttering.*

3.2.4 Social (Pragmatic) Communication Disorder

- Difficulty using communication appropriately in social situations
    - *A child dominates conversations and doesn't take turns when speaking.*
- Problems adjusting language to different contexts
    - *A child speaks to teachers the same way they speak to friends.*
- Difficulty understanding implied meaning or humor
    - *A child takes figurative phrases literally and misses jokes or sarcasm.*

3.3 How Do We Diagnose Communication Disorders?

Communication disorders are typically identified through a combination of caregiver history, observation, and formal assessment by speech-language pathologists and other developmental specialists. Diagnosis focuses on whether the child's speech, language, or communication skills fall below what is expected for their age and whether these difficulties interfere with daily functioning.

3.3.1 DSM-5-TR Diagnostic Criteria

3.3.1.1 Language Disorder

Characterized by persistent difficulties in understanding or producing language (e.g., grammar, vocabulary, sentence structure) that interfere with communication or learning and begin in early development.

3.3.1.2 Speech Sound Disorder

Involves persistent challenges producing speech sounds in a way that makes speech difficult to understand, with onset in early childhood and not explained by hearing loss or neurological conditions.

3.3.1.3 Childhood-Onset Fluency Disorder (Stuttering)

Defined by disruptions in the normal flow of speech—repetitions, prolongations, or blocks—that cause distress or interfere with communication, beginning in early childhood.

3.3.1.4 Social (Pragmatic) Communication Disorder

Marked by difficulties using verbal and nonverbal communication for social purposes (e.g., conversation rules, adjusting to context, understanding implied meanings), with symptoms appearing in early development.

3.3.2 Assessment Tools Used in Diagnosis

Diagnosis often includes standardized assessments, speech and language samples, and observations across settings.

- **Preschool Language Scale (PLS)**: assesses early receptive and expressive language abilities
- **Clinical Evaluation of Language Fundamentals (CELF)**: measures language formulation, comprehension, and structural language skills
- **Goldman-Fristoe Test of Articulation (GFTA)**: identifies and analyzes speech sound production errors
- **Test of Language Development (TOLD)**: evaluates vocabulary, grammar, and sentence-level language skills
- **Diagnostic Evaluation of Articulation and Phonology (DEAP)**: differentiates articulation errors from phonological pattern difficulties
- **Stuttering Severity Instrument (SSI)**: rates the frequency and severity of stuttering behaviors
- **Pragmatic Language Skills Inventory (PLSI)**: examines how children use language for social interaction in everyday contexts

3.3.3 Differential Diagnosis

Differential diagnosis focuses on which aspect of communication is most affected. Language disorder involves difficulties with vocabulary, grammar, or sentence structure, while speech sound disorder centers on challenges producing specific sounds. Childhood-onset fluency disorder reflects disruptions in the flow of speech, such as repetitions, prolongations, or blocks. Social pragmatic communication disorder involves difficulty using language appropriately in social contexts. These disorders must be distinguished from typical bilingual development, hearing impairments, intellectual developmental disorder, autism spectrum disorder, and anxiety-related avoidance of communication.

3.3.4 Comorbidities

Communication disorders commonly co-occur with other neurodevelopmental conditions. Many children also meet criteria for autism spectrum disorder, ADHD, or specific learning

disorders, especially those involving reading or written expression. Intellectual developmental disorder may contribute to broader communication delays, and anxiety disorders—particularly social anxiety—can emerge when communication challenges lead to frustration or avoidance. Comorbidities often influence the child's presentation and may affect treatment planning.

3.4 Contributing Factors

Communication disorders arise from a combination of genetic, developmental, and environmental influences. These disorders often run in families, suggesting a genetic component, and they commonly occur alongside other neurodevelopmental conditions. Differences in early brain development can affect how children learn sounds, process language, or manage speech fluency. Hearing loss or chronic ear infections may interfere with sound perception and language learning. Environmental factors—such as limited exposure to rich language interactions, reduced opportunities for conversation, or inconsistent language input—can also shape communication development. Cultural and linguistic background must be taken into account, as typical bilingual language patterns may resemble delays but are not disorders.

3.5 How Do We Treat Communication Disorders?

Treatment for communication disorders is typically delivered by speech-language pathologists and focuses on the child's specific communication needs. Therapy may target speech sounds, receptive and expressive language skills, fluency strategies, or social communication abilities. Sessions often include structured practice, play-based learning, and caregiver participation to help children use new skills outside of therapy. Collaboration with teachers ensures that school demands align with the child's communication strengths and challenges. For children who experience frustration or avoidance related to communication, supportive strategies may also be included.

- **Speech-Language Therapy (SLP):** SLPs use exercises to build vocabulary, improve grammar, practice sounds, strengthen speech muscles, and help children organize their thoughts.
- **Behavioral Techniques:** strategies that modify communication-related behaviors, teach social skills such as reading nonverbal cues, and use reinforcement to shape effective communication.
- **Augmentative and Alternative Communication (AAC):** devices or apps that use symbols, pictures, or text-to-speech for children who need additional or alternative ways to communicate.

3.6 Prognosis

The prognosis for communication disorders varies depending on the type and severity of the disorder, the child's age at identification, and access to intervention. Many children make significant improvements with early and consistent speech-language therapy, especially for speech sound errors and expressive language delays. Fluency disorders may fluctuate over time, and some children recover naturally while others continue to need support into adolescence. Social communication difficulties often improve with targeted intervention but may remain an area of challenge in complex social situations. Overall outcomes are best when intervention begins early and is supported across home and school environments.

3.7 Prevalence and Statistics

Communication disorders are common in childhood, though estimates vary by type. Language disorder affects roughly 7% of children, making it one of the most prevalent developmental conditions. Speech sound disorders occur in about 8% to 9% of young children, with rates decreasing as children age. Childhood-onset fluency disorder affects approximately 1% of children, with higher rates in boys than girls. Social pragmatic communication disorder is less common, though exact estimates are still emerging. Boys are diagnosed with communication disorders more often than girls overall, and prevalence is higher among children with co-occurring neurodevelopmental conditions.

3.8 Reflection

Take a moment to think about how communication difficulties might affect a child's daily life at home, in school, and with peers.

1. Which aspects of communication—speech, language, or social use—seem most challenging for children, and why?
2. How might communication difficulties influence a child's behavior or relationships?
3. What kinds of support do you think would make the biggest difference for a child with a communication disorder?

3.9 Discussion

1. How can communication disorders impact academic achievement in early schooling?
2. In what ways might a child with a communication disorder be misunderstood by adults or peers?

3. What cultural or linguistic factors should be considered when evaluating a child for a communication disorder?
4. How might early intervention change the developmental trajectory for a child with communication difficulties?
5. What challenges might arise when distinguishing between typical bilingual development and a true communication disorder?
6. How do communication disorders overlap with other neurodevelopmental conditions such as ADHD or autism spectrum disorder?
7. What strategies could teachers use in the classroom to support children with communication disorders?

3.10 Key Terms

Articulation: how speech sounds are physically produced.

Communication: any verbal or nonverbal behavior that conveys information to another person.

Expressive language: the ability to use words and sentences to convey ideas.

Fluency: the rhythm and flow of speech.

Language: the system of symbols and rules used to communicate meaning.

Pragmatics: the social use of language, including turn taking, context, and nonliteral meaning.

Receptive language: the ability to understand words, sentences, and directions.

Speech: the production of sounds using the articulators and vocal mechanisms.

4 Motor Disorders

4.0.0.1 *Take a Moment: What Do You Think Motor Disorders Are?*

Children move constantly. Running, climbing, writing, eating, playing, building, dancing. We tend to assume these abilities develop naturally, but for some kids, coordinating their bodies, controlling repetitive movements, or managing sudden tics becomes unusually difficult. Before reading further, consider what you think "motor disorders" might look like in day-to-day life. Where might we confuse symptoms for clumsiness, habit, or misbehavior?

4.1 What Are Motor Disorders?

Motor disorders are neurodevelopmental conditions in which children show persistent difficulties in planning, coordinating, or regulating movement. These challenges go beyond ordinary clumsiness or childhood habits. They interfere with daily functioning, schoolwork, self-care, and relationships. Motor disorders include difficulties learning coordinated movements, engaging in repetitive or seemingly purposeless behaviors, and experiencing sudden, involuntary tics.

4.2 What Do Motor Disorders Look Like in Children?

Children may struggle with everyday motor tasks, display repetitive movements, or develop motor or vocal tics that are difficult to control. Presentation varies across disorders.

Developmental Coordination Disorder (DCD) Children with DCD have noticeable difficulties learning and executing coordinated movements. These challenges can affect fine motor skills (such as handwriting, using utensils, buttoning shirts) and gross motor skills (such as running, jumping, or navigating playground equipment). Their movements may appear awkward, slow, or effortful, and they often require more practice than peers to learn routine tasks.

- *Example:* A child who consistently bumps into things, drops objects, or falls behind peers in learning to tie shoes or ride a bike.

Stereotypic Movement Disorder Children with this disorder engage in repetitive, seemingly purposeless movements that may increase during excitement, boredom, or stress. These movements can be soothing for some children but disruptive or dangerous for others, especially when they involve self-injury. Behaviors tend to follow predictable patterns and may persist over time.

- *Example:* A child who repetitively rocks, hand-flaps, or hits themselves when excited or stressed.

Tic Disorders (including Tourette's) Tic disorders involve sudden, rapid, recurrent motor movements or vocalizations that the child feels a strong urge to perform. Tics often wax and wane in frequency and intensity, and they can be influenced by stress, fatigue, or excitement. Some children can briefly suppress tics, but doing so often causes discomfort.

- *Example:* A child who repeatedly blinks, shrugs, grunts, or makes sudden movements they cannot stop.

4.3 How Do We Diagnose Motor Disorders?

Diagnosis requires evidence that motor difficulties are persistent, developmentally inappropriate, and interfere with daily functioning. Clinicians rule out other medical, neurological, or developmental explanations. Standardized assessments, observations across settings, and caregiver interviews are typically used.

4.3.1 DSM-5-TR Diagnostic Criteria

4.3.1.1 Developmental Coordination Disorder

Children must show difficulties acquiring and using coordinated motor skills, with performance well below age expectations and significant interference in daily activities. Difficulties cannot be better explained by intellectual disability, visual impairment, or neurological conditions.

- **Criterion A:** Motor skill deficits (such as using scissors, catching a ball, handwriting). *Example: A child whose handwriting remains far less legible than peers despite practice.*
- **Criterion B:** Deficits interfere with academic achievement or self-care. *Example: Struggling to dress independently because of fine motor issues.*
- **Criterion C:** Onset in early developmental period.
- **Criterion D:** Not better explained by another condition.

4.3.1.2 Stereotypic Movement Disorder

Repetitive, seemingly purposeless motor behavior begins in childhood and causes impairment.

- **Criterion A:** Repetitive, purposeless movements. *Example: Rocking or hand-flapping that occurs daily.*
- **Criterion B:** Interference with social, academic, or other functioning.
- **Criterion C:** If self-injury is present, specify severity.
- **Criterion D:** Behavior not better explained by another disorder.

4.3.1.3 Tic Disorders

Tics are sudden, rapid, recurrent, nonrhythmic motor movements or vocalizations.

- **Tourette's Disorder:** Multiple motor tics and at least one vocal tic, present for over a year.
- **Persistent (Chronic) Motor or Vocal Tic Disorder:** One or more motor tics OR vocal tics for over a year.
- **Provisional Tic Disorder:** Tics present for less than a year.

4.3.2 Assessment Tools Used in Diagnosis

Assessment of motor disorders often includes standardized motor tests, caregiver interviews, developmental history, and behavioral observations. Clinicians determine whether motor symptoms align with DSM-5-TR criteria and significantly impede daily functioning.

Common tools assess fine motor skills, gross motor coordination, repetitive behaviors, and tic severity.

- **Bruininks-Oseretsky Test of Motor Proficiency (BOT-2):** Evaluates fine and gross motor skills.
- **Movement Assessment Battery for Children (MABC):** Assesses coordination difficulties.
- **Yale Global Tic Severity Scale (YGTSS):** Measures tic frequency and impairment.

4.3.3 Differential Diagnosis

Differential diagnosis involves distinguishing motor disorders from other conditions that may produce similar symptoms. Clinicians evaluate the pattern, onset, intensity, and context of motor behaviors to determine whether they reflect a neurodevelopmental disorder, a medical condition, or typical developmental variation.

Developmental Coordination Disorder (DCD) DCD must be differentiated from motor delays caused by cerebral palsy, muscular dystrophy, vision impairment, or other neurological conditions. In these medical conditions, motor difficulties stem from identifiable structural or physiological abnormalities, whereas DCD reflects impaired motor planning and coordination without a medical cause. Intellectual disability can also affect motor learning, but in DCD the motor impairment is disproportionately severe relative to cognitive functioning.

Stereotypic Movement Disorder Repetitive behaviors may also appear in autism spectrum disorder, intellectual disability, or sensory processing differences. In Stereotypic Movement Disorder, repetitive motor behaviors occur on their own rather than as part of broader social communication or cognitive deficits. When behaviors are self-injurious, clinicians must also rule out neurological disorders, genetic syndromes, and the effects of certain medications.

Tic Disorders Tics must be distinguished from compulsions, stereotypies, and seizure activity. Compulsions typically respond to an internal rule or belief, whereas tics are driven by a physical urge. Stereotypies are more rhythmic, predictable, and often triggered by excitement, while tics are sudden and variable. Motor movements due to seizures are not suppressible and follow a neurological pattern rather than waxing and waning over time.

4.3.4 Comorbidities

Comorbidity is common across all motor disorders, and many children experience overlapping neurodevelopmental, behavioral, or emotional conditions. These co-occurring challenges can complicate diagnosis, increase functional impairment, and influence treatment planning.

Developmental Coordination Disorder (DCD) Children with DCD often also show attention or learning difficulties, especially in tasks requiring fine motor coordination. These overlaps can resemble ADHD or academic skill deficits but stem largely from motor challenges.

Stereotypic Movement Disorder Stereotypic behaviors commonly appear alongside intellectual disability, autism, or sensory differences. Self-injury risk may increase when impulsivity or communication limitations are present.

Tic Disorders (including Tourette's) Tic disorders frequently co-occur with ADHD, obsessive-compulsive traits, and anxiety. These accompanying symptoms often cause more day-to-day impairment than the tics themselves.

Children rarely receive multiple diagnoses across motor disorders even when symptoms technically qualify. Clinicians typically identify the condition that best explains the full picture rather than assigning several overlapping labels. For example, repetitive movements that meet criteria for Stereotypic Movement Disorder are often folded into an autism diagnosis if autism is present, even though both could technically be diagnosed. Likewise, motor coordination difficulties may be overshadowed by ADHD or learning disorders, and milder tic disorders may go undiagnosed if other conditions better account for impairment. This tendency can lead to certain motor disorders being underrecognized, despite meaningful impacts on functioning.

4.4 Contributing Factors

Motor disorders arise from a combination of biological, developmental, and environmental influences. Although each disorder has its own profile, underlying neurological differences play a central role. Genetics contribute to vulnerability across all motor disorders. Family studies show higher rates of coordination difficulties, repetitive movements, and tics among biological relatives, suggesting inherited differences in motor-control and regulatory systems.

Developmental Coordination Disorder (DCD) DCD is linked to atypical development in brain areas supporting motor planning, coordination, and sensory integration. Perinatal complications or subtle neurological immaturities may contribute, though no single cause is identified.

Stereotypic Movement Disorder These behaviors often reflect differences in sensory processing, arousal regulation, or self-soothing mechanisms. Genetic vulnerabilities or environmental deprivation may also play a role, especially when coping skills are limited.

Tic Disorders (including Tourette's) Tics have strong genetic and neurobiological foundations, particularly involving dopamine pathways and motor-inhibition circuits. Stress and fatigue do not cause tics but can intensify them in children who are already predisposed.

Across all motor disorders, contributing factors interact over time and shape how symptoms emerge and fluctuate. Early identification and support can lessen secondary difficulties but do not change the core neurodevelopmental basis.

4.5 How Do We Treat Motor Disorders?

Treatment for motor disorders focuses on improving functional skills, reducing distress, and helping children participate more fully in daily life. Rather than treating each disorder separately, clinicians draw from a range of therapeutic approaches that can be matched to a child's specific needs.

Occupational Therapy (OT): OT supports children who struggle with fine motor tasks, coordination, handwriting, self-care routines, and planning movements. Therapy often includes task-specific practice, breaking skills into manageable steps, strengthening underlying motor patterns, and adapting activities or environments to promote independence.

Physical Therapy (PT): PT is useful when gross motor skills, balance, strength, or coordination are affected. Therapists work on posture, gait, endurance, and whole-body movement patterns, helping children participate more successfully in sports, play, and school activities.

Behavioral and Habit-Reversal Techniques: These strategies are especially helpful for reducing repetitive movements or tics. For tic disorders, structured approaches such as Comprehensive Behavioral Intervention for Tics (CBIT) teach children to recognize pre-tic urges and use competing responses. Similar principles can be applied to reduce harmful or disruptive stereotypic movements.

Sensory-Based Therapies: Some children benefit from strategies that help them regulate arousal, attention, and sensory experiences. When repetitive movements function as self-soothing or sensory-seeking behaviors, targeted sensory interventions can reduce distress and improve participation.

Parent and School Supports: Caregivers and educators play an essential role in treatment. Environmental adjustments, predictable routines, and supportive teaching strategies can significantly reduce frustration and improve confidence. Collaboration ensures that therapy gains translate into real-world functioning.

Medication: Medication is not typically used for developmental coordination difficulties or stereotypic movements but can be helpful for some children with tic disorders, especially when tics are severe or co-occurring conditions create additional impairment. Medications targeting dopamine pathways may reduce tic frequency or intensity, while stimulants, non-stimulants, or SSRIs may be used when ADHD, anxiety, or obsessive-compulsive symptoms contribute more to functional challenges than the tics themselves.

Across all approaches, treatment is most effective when it is individualized, developmentally appropriate, and focused on improving practical skills and everyday participation rather than eliminating symptoms entirely.

4.6 What Is the Prognosis?

Prognosis varies across motor disorders, but most children make meaningful improvements when provided with early recognition, appropriate therapies, and consistent support across home and school environments. Symptoms may not disappear entirely, yet children often learn effective strategies to manage challenges and participate more fully in daily life.

Developmental Coordination Disorder (DCD) Motor difficulties tend to persist into adolescence and adulthood, but functional outcomes improve when children receive targeted

practice and accommodations. Without support, secondary issues such as low confidence or academic frustration may have a greater long-term impact than the motor symptoms themselves.

Stereotypic Movement Disorder Many repetitive movements lessen over time, especially when they serve a temporary developmental purpose or are linked to sensory needs that become easier to manage with age. When movements involve self-injury, ongoing monitoring and behavioral support are important, but many children show reduced intensity with structured intervention.

Tic Disorders (including Tourette's) Tics typically wax and wane and often decrease in late adolescence. Some children experience near-complete remission, while others continue to have mild symptoms that become less disruptive as they mature. Long-term outcomes are shaped more by co-occurring conditions—such as ADHD, anxiety, or obsessive-compulsive traits—than by the tics themselves.

Overall, prognosis improves when children are supported in developing confidence, coping strategies, and adaptive skills. A strengths-focused approach helps prevent secondary challenges and promotes long-term well-being.

4.7 Prevalence & Statistics

Prevalence rates vary across the motor disorders, reflecting differences in how noticeable symptoms are, how consistently they are identified, and whether children receive evaluation at all.

Developmental Coordination Disorder (DCD) DCD affects approximately 5–6% of school-age children, making it one of the more common neurodevelopmental disorders. Many cases go undiagnosed because symptoms can be misattributed to clumsiness or lack of effort.

Stereotypic Movement Disorder Prevalence estimates range from 3–4% in early childhood, though rates are higher among children with intellectual disability or autism. Repetitive movements that are mild or soothing often go unreported, contributing to underestimation.

Tic Disorders (including Tourette's) Transient tics are very common, occurring in up to 20% of children at some point. Chronic tic disorders affect about 1–2% of children, while Tourette's Disorder occurs in roughly 0.3–0.8%. Boys are diagnosed more frequently than girls.

Across all motor disorders, prevalence numbers reflect only diagnosed cases. Many children with mild symptoms never come to clinical attention, meaning true rates may be higher than reported.

4.8 Reflection

Take a moment to reflect on how motor disorders might affect a child's daily experiences and interactions.

1. Which aspects of motor disorders do you think are most likely to be misunderstood by caregivers or teachers, and why?
2. How might motor challenges influence a child's social confidence or school participation?
3. What supports do you believe would make the biggest difference for a child with a motor disorder?

4.9 Discussion

1. How do environmental factors shape the expression of motor symptoms over time?
2. What challenges arise when differentiating between tics, compulsions, and stereotypies?
3. How might co-occurring conditions complicate diagnosis and treatment planning?
4. How can schools better support children with motor disorders across academic and social contexts?

4.10 Key Terms

Adaptive functioning: the practical, social, and conceptual skills needed for daily life

Coordination: the smooth, efficient use of muscles to perform tasks

Habit-reversal training: behavioral technique used to reduce tics or repetitive behaviors

Motor planning: the ability to conceive, organize, and carry out a sequence of movements

Occupational therapy: therapy focused on improving daily living and fine motor skills

Physical therapy: therapy targeting gross motor skills, balance, and physical coordination

Stereotypy: repetitive, seemingly purposeless motor behavior

Tic: sudden, rapid, recurrent motor movement or vocalization

5 Autism Spectrum Disorder (ASD)

Before diving into the details of Autism Spectrum Disorder, pause for a moment and notice what comes to mind when you hear the term autism. Where did your earliest ideas about autism come from? What images, assumptions, or feelings show up for you? Many children and adults with autism are misunderstood, and public narratives often focus narrowly on deficits or stereotypes. As you read this chapter, compare your starting impressions with what research and lived experiences actually show.

5.1 What Is Autism Spectrum Disorder?

Autism Spectrum Disorder (ASD) is a neurodevelopmental condition defined in the DSM-5-TR as involving persistent difficulties in social communication and social interaction, alongside restricted or repetitive patterns of behavior, interests, or activities. These symptoms originate in early childhood and must meaningfully limit a child's functioning in everyday settings. ASD is conceptualized as a spectrum because children vary widely in their strengths, support needs, language abilities, and cognitive profiles. Some children may have fluent language and advanced skills in certain areas, while others may communicate minimally or require more substantial daily support.

5.2 What Does ASD Look Like in Children?

ASD first becomes noticeable in early childhood. For many children, caregivers observe signs in the first one to two years of life, such as reduced eye contact, limited social smiling, or delays in language development. Sometimes differences appear even earlier when overall development is markedly delayed; in other cases, indicators may not become fully clear until social demands increase in preschool or early school years.

Children may:

- **Struggle to share interests or emotions**

- *Example: A child may not bring toys to show a caregiver or may rarely point to interesting things happening around them.*

- **Respond inconsistently to their name or social bids**

  - *Example: A child may appear "in their own world" during play and not look up even when a familiar adult calls their name repeatedly.*

- **Prefer solitary play or have trouble engaging with peers**

  - *Example: A child may sit near classmates in preschool but play only with objects, without joining pretend games or group activities.*

- **Engage in repetitive behaviors**

  - *Example: A child may line up toy cars the same way each day and become distressed if someone moves one out of order.*

- **Develop strong or unusual interests**

  - *Example: A child may know every fact about washing machines or ceiling fans and want to talk about little else.*

- **Show sensory differences**

  - *Example: A child may cover their ears during everyday sounds like vacuuming or reject certain clothing textures due to discomfort.*

Associated features vary widely. There is a well-known expression in the autism community: "When you've met one person with autism, you've met one person with autism." This phrase highlights the tremendous diversity in how ASD presents across children and adults. Many children have uneven cognitive profiles, where certain skills (e.g., memory, visual processing) are stronger than others (e.g., social reasoning, flexible problem-solving). Motor differences such as clumsiness, toe-walking, or delayed coordination may appear. Some children may show distress when routines shift or may have difficulty coping with uncertainty or transitions. As development progresses, older children with ASD may understand the structure of social interactions but still find the moment-to-moment demands of conversation challenging or exhausting.

5.2.0.1 Developmental Presentation Across Ages

Early Childhood (Toddlers and Preschoolers)

- Limited eye contact or reduced social smiling
- Delayed or unusual language development (e.g., using labels but not requesting)
- Limited use of gestures such as pointing, waving, or showing objects
- Preference for solitary play or strong attachment to specific toys or routines
- Repetitive play patterns such as lining up objects or spinning items
- Sensory behaviors such as covering ears, staring at lights, or avoiding touch

Example: A 3-year-old spends long periods spinning the wheels of a toy car, becomes upset when a caregiver changes the order of daily routines, and uses only a few gestures to communicate.

School-Age Children (Kinder to Middle School)

- Difficulty understanding social rules such as taking turns in conversation
- Challenges joining peer play or interpreting sarcasm, jokes, or figurative language
- Strong, specific interests that dominate conversation
- Rigid thinking or distress with unexpected schedule changes
- Repetitive movements or sensory-seeking behaviors (e.g., tapping, rocking)
- Uneven academic profile (e.g., advanced reading but difficulty with comprehension)

Example: A 7-year-old wants to play with classmates but becomes frustrated when they don't follow the rules of her imaginative game, talks extensively about dinosaurs, and becomes upset when the class goes to lunch at a different time.

Adolescents (Middle to High School)

- Increasing awareness of social differences, which may lead to anxiety or withdrawal
- Difficulty navigating complex peer dynamics, friendships, or romantic interests
- Continued challenges with flexible thinking, planning, and organization
- Intense interests that may deepen into hobbies or academic passions
- Masking or camouflaging behaviors to blend in socially, which can be exhausting
- Sensory sensitivities that affect school or community activities

Example: A 15-year-old completes schoolwork accurately but slowly due to perfectionism and difficulty shifting tasks, feels overwhelmed in noisy hallways, and struggles to interpret group conversations even though they want to connect with peers.

5.3 How Do We Diagnose Autism Spectrum Disorder?

Diagnosing ASD involves understanding a child's developmental history, observing their behavior across settings, and determining whether their social communication differences and behavioral patterns meet DSM-5-TR criteria. Because ASD is a spectrum, children may show these characteristics in very different ways, so clinicians rely on multiple sources of information rather than any single test. In addition to an ASD diagnosis, there are other specification such as intellectual or language impairments and these are rated on severity based on the level of support an individual may need.

5.3.1 DSM-5-TR Diagnostic Criteria

Autism Spectrum Disorder is diagnosed based on behavioral observations and developmental history. The DSM-5-TR outlines five criteria (A–E). Below, each criterion is paraphrased for clarity and includes a brief example where appropriate.

5.3.1.1 Criterion A: Difficulties in Social Communication and Social Interaction

Children with ASD show persistent challenges in social communication. This may include reduced back-and-forth interactions, difficulty using gestures or eye contact, or trouble forming relationships.

- **Difficulties with social-emotional reciprocity**

    - *Example: A child may not respond when someone shares excitement or may struggle to sustain a simple back-and-forth exchange.*

- **Challenges with nonverbal communication**

    - *Example: A child may use very few gestures or may not coordinate eye contact with speech during conversation.*

- **Difficulties forming or maintaining relationships**

    - *Example: A child may want friends but not know how to join peer play or may engage in solitary play even in group settings.*

5.3.1.2 Criterion B: Restricted and Repetitive Behaviors

Children must show at least two types of restricted or repetitive behaviors. "Restricted" behaviors refer to narrow, intense interests or rigid routines, while "repetitive" behaviors involve repeated movements, actions, or speech. These patterns can include self-stimulatory behaviors—often called "stimming"—such as hand flapping, rocking, or repeating phrases, which many individuals with autism use to regulate sensory input or emotions. These behaviors help clinicians recognize the underlying patterns of ASD.

- **Repetitive movements or speech**

  - *Example: A child may repeat certain phrases (echolalia) or flap their hands when excited or overwhelmed.*

- **Insistence on sameness and difficulty with change**

  - *Example: A child may follow a very specific morning routine and become distressed if any step changes.*

- **Highly restricted or intense interests**

  - *Example: A child may talk extensively about one topic, such as trains, and become upset when asked to shift to another subject.*

- **Sensory differences**

  - *Example: A child may cover their ears in response to common sounds or seek strong sensory input by touching objects repeatedly.*

5.3.1.3 Criterion C: Symptoms Begin in Early Development

Signs of ASD must be present early in life, even if they do not become fully apparent until later when social demands increase. Some children show noticeable differences in toddlerhood, while in others traits become clearer during preschool or early school years.

5.3.1.4 Criterion D: Symptoms Cause Meaningful Impairment

The child's differences must interfere with everyday functioning. This may include difficulties at home, in school, or in peer interactions.

5.3.1.5 Criterion E: Symptoms Are Not Better Explained by Intellectual Disability

Although ASD and intellectual disability can co-occur, social communication challenges in ASD must exceed what would be expected based on cognitive delays alone.

5.3.2 Specifiers

After diagnosis, clinicians use "specifiers" to describe the child's presentation more accurately. These include:

- With or without intellectual impairment

  - *Example: A child may have average cognitive skills or may also meet criteria for an intellectual disability that influences learning pace and problem-solving.*

- With or without language impairment

  - *Example: A child may have fluent speech, minimal verbal language, or uneven expressive (saying) and receptive (understanding) skills.*

- Associated with a known genetic or medical condition

  - Example: A child may have ASD in the context of known genetic or medical conditions, ex. Fragile X syndrome

- Associated with another neurodevelopmental, mental, or behavioral disorder

  - *Example: A child may also experience ADHD, anxiety, or developmental coordination disorder.*

- With catatonia

  - *Example: A child may show motor abnormalities such as slowed movement, agitation, or unusual postures in addition to ASD symptoms.*

Specifiers provide information about the child's support needs and help guide intervention.

5.3.3 Severity Levels

Severity levels in ASD describe how much support a child needs in two domains: social communication and restricted/repetitive behaviors. Severity may vary across these domains and can change over time.

Severity Level	Social Communication	Restricted & Repetitive Behaviors
Level 1: Requires Support	Noticeable difficulties in social interaction; may attempt social engagement but has reduced reciprocity.	Rituals and repetitive behaviors interfere with functioning in one or more settings.
Level 2: Requires Substantial Support	Marked deficits in verbal and nonverbal communication; limited initiation of interactions.	Behaviors are obvious to others and occur frequently; difficulty coping with change.
Level 3: Requires Very Substantial Support	Severe impairments; very limited social interaction; minimal response to others.	Behaviors significantly impair daily functioning; extreme distress with change.

5.3.3.1 Examples Across Domains

Level 1 (Requires Support)

- *Social:* A child may start interactions but struggle to maintain conversations or read subtle social cues.
- *Repetitive Behaviors:* A child may insist on specific routines, becoming upset when plans shift unexpectedly.

Level 2 (Requires Substantial Support)

- *Social:* A child may speak in short phrases and have difficulty initiating or sustaining interaction without support.
- *Repetitive Behaviors:* A child may become overwhelmed by minor changes, with repetitive behaviors interfering with daily tasks.

Level 3 (Requires Very Substantial Support)

- *Social:* A child may communicate primarily through gestures or sounds and show limited response to social engagement.
- *Repetitive Behaviors:* A child may display intense, frequent repetitive movements that make participation in structured activities difficult.

5.3.4 Associated Features

Many individuals with autism spectrum disorder also show a range of associated features that vary widely across children. Intellectual and language impairments are common; some children are slow to talk or may understand language better than they can use it. Even individuals with autism with average or high intelligence often have an uneven profile of abilities, with notable gaps between cognitive skills and everyday adaptive functioning.

Difficulties with theory of mind—understanding others' thoughts, perspectives, and intentions—may contribute to social challenges, though these difficulties are not present in every case. Executive functioning differences are also frequent, affecting planning, organization, working memory, and flexible problem-solving. Some children also show challenges with central coherence, meaning they may focus on details rather than the broader context or "big picture."

Motor differences are common and may include clumsiness, unusual gait, poor coordination, or toe-walking. Some children engage in self-injurious behaviors such as head banging or biting, particularly when overwhelmed or unable to communicate distress. Challenging or disruptive behaviors may occur more often in children with autism than in children with other neurodevelopmental disorders.

A minority of individuals may develop catatonic-like motor symptoms, including slowed movements or "freezing." Although these symptoms are usually mild, a full catatonic episode—characterized by mutism, posturing, grimacing, or waxy flexibility—can occur, most often during adolescence.

5.3.4.1 Diagnostic Examples

Below are brief examples illustrating how an ASD diagnosis might be documented for children with different profiles, including DSM codes, specifiers, and severity levels.

Example 1: Ava, age 5 Ava is a highly verbal 5-year-old who enjoys talking about her favorite topics but has difficulty with back-and-forth conversation. She often misses social cues, becomes anxious during peer play, and is rigid about routines, becoming upset with small changes. Evaluation shows age-appropriate cognitive abilities, intact language skills, and repetitive speech when excited. Symptoms were present from toddlerhood and cause challenges in preschool.

- **Diagnosis:** Autism Spectrum Disorder, F84.0; without intellectual impairment; without language impairment; severity: Level 1 (requires support) in both social communication and restricted behaviors.

Example 2: Mateo, age 7 Mateo communicates mostly using short phrases and gestures. He shows limited eye contact, rarely initiates interaction, and becomes distressed with transitions. He has intense interests in spinning objects and demonstrates frequent repetitive hand movements. On occasion he engages in harmful self-stimulatory behaviors such as head banging. Cognitive testing suggests an intellectual disability, and adaptive functioning scores are significantly delayed across domains. His ASD symptoms, however, exceed what would be expected based solely on cognitive delays.

- **Diagnosis:** Autism Spectrum Disorder, F84.0; with intellectual impairment; with language impairment; severity: Level 2 (requires substantial support) in social communication and Level 3 (requires very substantial support) in restricted and repetitive behaviors.

Example 3: Jordan, age 9 Jordan is a 9-year-old boy who speaks in full sentences but has difficulty using language socially. He tends to lecture others about his favorite topics—weather systems and train schedules—and struggles to notice when peers lose interest (lacks theory of mind). At school, transitions between subjects are challenging, and unexpected schedule changes often result in emotional outbursts. He has strong visual–spatial reasoning skills but needs adult support to stay organized and follow multi-step instructions. His caregivers report that early signs appeared around age 3, including limited pretend play and difficulty engaging with peers.

- **Diagnosis:** Autism Spectrum Disorder, F84.0; without intellectual impairment; without language impairment; severity: Level 2 (requires substantial support) in social communication and Level 1 (requires support) in restricted and repetitive behaviors.

5.3.5 Assessment Tools Used in Diagnosis

Diagnosing ASD requires gathering information from multiple sources, including caregivers, teachers, clinicians, and direct observation. No single test determines diagnosis; rather, clinicians use a combination of standardized tools and clinical judgment.

5.3.5.1 Developmental & Diagnostic Interviews

- **Autism Diagnostic Interview–Revised (ADI-R):** A structured caregiver interview that gathers detailed information about early development, communication history, social behaviors, play patterns, and restricted or repetitive behaviors.
- **Developmental history interviews:** Broad interviews that review milestones, medical history, family context, and early social behaviors.

5.3.5.2 Structured Behavioral Observations

- **Autism Diagnostic Observation Schedule, Second Edition (ADOS-2):** A semi-structured, play-based assessment that allows clinicians to observe social communication, eye contact, gestures, imaginative play, and repetitive behaviors across standardized activities.

5.3.5.3 Cognitive & Language Tests (Not Diagnostic for ASD)

These tests do not diagnose autism but help identify cognitive strengths, language delays, or uneven skill profiles that may influence how ASD presents.

- **Wechsler Intelligence Scale for Children (WISC-V):** Measures reasoning, working memory, processing speed, and verbal and nonverbal abilities. Results help distinguish ASD from co-occurring intellectual disability or evaluate uneven cognitive profiles.
- **Wechsler Preschool and Primary Scale of Intelligence (WPPSI-IV):** Assesses emerging language, reasoning, and early problem-solving skills in younger children.
- **Preschool Language Scales (PLS-5):** Evaluates expressive and receptive language, identifying language delays that often co-occur but are not unique to ASD.

5.3.5.4 Adaptive Functioning Measures (Describe Daily Living Skills, Not Diagnostic for ASD)

These measures assess everyday functioning. They help determine support needs but cannot diagnose ASD.

- **Vineland Adaptive Behavior Scales, Third Edition (Vineland-3):** Provides caregiver or teacher ratings across communication, daily living skills, socialization, and motor domains.

- **Adaptive Behavior Assessment System, Third Edition (ABAS-3):** Offers detailed profiles in conceptual, social, and practical skills across home and school settings.

5.3.5.5 Developmental & Supplemental Evaluations (Provide Additional Information, Not Diagnostic)

- **Sensory assessments:** Identify sensory-seeking or sensory-avoidant patterns that may affect behavior and participation.
- **Motor assessments (e.g., BOT-2):** Evaluate fine and gross motor coordination, which can be relevant for ASD presentations.

- **School-based evaluations:** Include classroom observations, teacher rating scales, and academic assessments to understand how ASD characteristics appear in real-world environments.

These combined tools help build a comprehensive picture of the child's strengths, challenges, and everyday functioning.

5.3.6 Differential Diagnosis

Autism Spectrum Disorder can resemble several other developmental or mental health conditions. Differential diagnosis helps clinicians determine whether ASD is the most accurate explanation for a child's presentation or whether another diagnosis better accounts for the observed symptoms. The following descriptions summarize DSM-5-TR guidance.

Attention-Deficit/Hyperactivity Disorder (ADHD) Difficulties with attention, distractibility, or hyperactivity are common in individuals with autism, but ADHD does not include restricted or repetitive behaviors or unusual interests. Some children with ADHD may appear socially intrusive or have difficulty with reciprocal conversation, but the underlying issue is impulsivity and self-regulation—not the social communication differences seen in ASD. When attentional difficulties or hyperactivity exceed what is typical for a child's developmental level, and when both sets of symptoms are present, ADHD may be diagnosed alongside ASD.

Intellectual Developmental Disorder (Intellectual Disability) Both ASD and intellectual disability may involve delayed language, limited social skills, and repetitive behaviors. In very young or minimally verbal children, distinguishing the two can be challenging. A diagnosis of ASD is appropriate when social communication and interaction skills are markedly impaired compared with the child's nonverbal cognitive abilities. When delays in social communication match the child's overall cognitive level, intellectual disability alone may be the more accurate diagnosis.

Language Disorders and Social (Pragmatic) Communication Disorder Some language disorders can cause communication problems and secondary social challenges. However, specific language disorders do not typically involve impaired nonverbal communication (e.g., gestures, eye contact) or the presence of restricted, repetitive behaviors. When a child shows social communication difficulties without any restricted or repetitive behaviors, Social (Pragmatic) Communication Disorder may be diagnosed instead of ASD. If restricted or repetitive behaviors are present now or historically, ASD is the appropriate diagnosis.

Selective Mutism Children with selective mutism demonstrate appropriate communication skills in some settings but remain silent in others due to anxiety. Unlike ASD, early development is typically normal, social reciprocity is intact, and no restricted or repetitive behaviors occur. Selective mutism is driven by situational anxiety rather than developmental social communication differences.

Stereotypic Movement Disorder Repetitive motor behaviors (e.g., hand flapping, rocking) can occur in both ASD and stereotypic movement disorder. An additional diagnosis of stereotypic movement disorder is not given when these behaviors are fully explained by ASD. However, if stereotypies cause self-injury and require targeted treatment, both diagnoses may be appropriate.

Rett Syndrome During the regression phase of Rett syndrome (typically ages 1–4), girls may temporarily meet criteria for ASD due to loss of skills and reduced social engagement. As the disorder progresses, most regain social interest, and autistic features diminish. ASD should only be diagnosed when full criteria are met beyond this regression period.

Symptoms Associated With Anxiety Disorders Anxiety symptoms can overlap with ASD features. For example, social withdrawal or repetitive behaviors may arise from anxiety. Specific phobias, social anxiety, and agoraphobia are among the most common anxiety disorders in individuals with autism. The key difference is that anxiety-related behaviors stem from fear or distress, not from developmental differences in social communication or cognitive processing.

Obsessive-Compulsive Disorder (OCD) Both ASD and OCD involve repetitive behaviors, but in OCD these behaviors are driven by intrusive, distressing thoughts and are performed to reduce anxiety. In ASD, repetitive behaviors are typically pleasurable, regulating, or tied to strong interests. OCD does not involve social communication differences.

Schizophrenia Childhood-onset schizophrenia usually follows a period of typical or near-typical development. Early symptoms—such as social withdrawal or unusual interests—may resemble ASD. However, schizophrenia includes hallucinations and delusions, which are not features of ASD. Because individuals with autism may interpret questions literally (e.g., "Do you hear voices when no one is there?" answered as "Yes—on the radio"), clinicians must carefully evaluate responses. Both conditions can co-occur when full criteria are met.

Personality Disorders (in adults) In adults without intellectual or significant language impairment, some ASD-related traits—such as limited social relationships, unusual interests, or flat affect—may resemble narcissistic, schizoid, or schizotypal personality disorders. Developmental history is critical: ASD involves early emerging social communication differences and restricted/repetitive behaviors, whereas personality disorders emerge later and lack childhood features such as limited imaginative play or sensory sensitivities.

5.4 Comorbidities

Autism Spectrum Disorder commonly co-occurs with other neurodevelopmental, mental health, and medical conditions. Recognizing comorbidities is essential because they can shape a child's functioning, contribute to challenging behaviors, and influence intervention planning. The DSM-5-TR notes that comorbidities do not replace the ASD diagnosis; rather, they provide a fuller picture of the child's developmental profile.

Intellectual Developmental Disorder (Intellectual Disability) Intellectual disability is one of the most frequently occurring comorbidities in ASD. Children may have global delays in cognitive development alongside the social communication differences characteristic of ASD. Cognitive testing and adaptive functioning measures help determine whether both diagnoses are appropriate.

Language Disorders Many children with autism have delayed expressive or receptive language skills or significant differences between understanding and producing language. These challenges may coexist with ASD and influence how social communication difficulties appear.

Attention-Deficit/Hyperactivity Disorder (ADHD) ADHD is one of the most common comorbidities in ASD. Hyperactivity, impulsivity, and attentional differences can complicate social interaction and learning. DSM-5-TR allows both diagnoses when full criteria for each are met.

Anxiety Disorders Specific phobias, social anxiety, and generalized anxiety are common in children with autism. Anxiety may amplify social withdrawal, repetitive behaviors, or resistance to change. DSM notes that anxiety symptoms can overlap with ASD features, making careful assessment important.

Depressive Disorders Older children and adolescents with ASD may experience depressive symptoms, especially when they become more aware of social differences or face chronic peer difficulties.

Obsessive-Compulsive Disorder (OCD) Although OCD and ASD both involve repetitive behaviors, OCD is characterized by intrusive thoughts and compulsions performed to relieve anxiety. When these features are present alongside ASD, both diagnoses may be given.

Motor Disorders Motor coordination challenges, developmental coordination disorder, and stereotypic movement disorder may co-occur with ASD. When repetitive movements are severe and cause self-injury, both ASD and stereotypic movement disorder may be diagnosed.

Sleep Disturbances Difficulty falling asleep, frequent night wakings, and irregular sleep patterns are common in children with autism and can significantly affect daytime behavior and learning.

Feeding and Gastrointestinal Issues Selective eating, sensory-based food aversions, and gastrointestinal complaints (such as constipation) frequently co-occur with ASD and may require coordinated care.

Epilepsy Seizure disorders occur at higher rates in individuals with autism, particularly those with co-occurring intellectual disability.

Comorbidities do not change the core ASD diagnosis but are essential for understanding the child's overall functioning and for selecting appropriate supports and interventions.

5.5 A Note on Differential Diagnoses vs. Comorbidities

Although many of the same conditions appear in both the differential diagnosis and comorbidity sections, the purpose of each is different. Differential diagnosis helps determine whether another condition better explains a child's presentation instead of ASD, while the comorbidity section acknowledges that these same conditions may also occur alongside ASD once the diagnosis is established. This overlap is expected and reflects the complexity of neurodevelopment.

5.6 Contributing Factors

Autism Spectrum Disorder arises from a combination of biological, genetic, and developmental influences. There is no single cause, and research strongly rejects the notion of a "smoking gun" explanation. Instead, ASD reflects complex interactions between inherited traits, prenatal development, and early brain maturation.

5.6.0.1 Genetic Factors

ASD shows strong heritability, with many genes contributing small effects rather than one specific "autism gene." Siblings of children with autism have a higher likelihood of being diagnosed, and certain genetic conditions can be associated with ASD. Most cases, however, do not involve an identifiable genetic syndrome.

5.6.0.2 Prenatal and Perinatal Influences

Research has examined factors such as advanced parental age, pregnancy complications, and prenatal exposures. These influences increase overall developmental vulnerability but do not act as direct causes. They are best understood as risk modifiers, that is they can increase risk, but are not the direct cause. Some of these risk factors include:

- Advanced parental age at time of conception
- Prenatal exposure to air pollution or certain pesticides
- Maternal obesity, diabetes, or immune system disorders
- Extreme prematurity or very low birth weight
- Any birth difficulty leading to periods of oxygen deprivation to the baby's brain

5.6.0.3 Misattributed Causes and Public Misconceptions

Throughout history, people have looked for single smoking gun explanations for autism, often leading to inaccurate or harmful claims. Vaccines do not cause autism—a conclusion strongly supported by extensive research. Claims about medications like acetaminophen (Tylenol) or other everyday exposures have not been supported as *causal* sources by scientific evidence. For example, when pregnant women take acetaminophen for a fever, the real question is why they had a fever in the first place. The underlying illness or inflammatory response may be the factor associated with later developmental differences—not the medication itself. In other words, acetaminophen use may simply reflect a deeper underlying condition, rather than *cause* autism.

5.6.0.4 Why Prevalence Has Increased

Rates of ASD diagnosis have risen over the past several decades, but this increase may be explained by changes in diagnostic practices, broader definitions, improved awareness, and access to evaluations. These patterns most likely reflect better identification rather than a true surge in the number of individuals with autism.

ASD is best understood as a neurodevelopmental condition rooted in early brain development, shaped by multiple interacting influences rather than any single cause.

5.7 How Do We Treat Autism Spectrum Disorder?

Treatment for ASD focuses on supporting development, improving communication and daily living skills, and reducing behaviors that interfere with learning or social participation. There is no "pill for autism," but a range of evidence-based interventions can address specific challenges.

Educational and Behavioral Supports: Many children with autism thrive with structured teaching approaches, predictable routines, and clear visual supports. In school, services are typically provided through an Individualized Education Program (IEP), which outlines goals, accommodations, and supports tailored to the child's needs.

Helpful approaches may include:

- Breaking tasks into smaller, manageable steps
- Using visual schedules, timers, or picture-based supports
- Modeling skills and providing guided practice
- Using behavior strategies that reinforce new skills and reduce frustration
- Positive behavior supports across both school and home settings

These strategies help children understand expectations, navigate learning tasks, and participate more confidently in daily activities.

Specific Behavioral and Developmental Interventions

Applied Behavior Analysis (ABA) ABA is one of the most widely used interventions. It uses structured teaching, reinforcement, and practice to build communication, social, and daily living skills. ABA may be delivered in intensive formats or in focused, targeted sessions depending on the child's needs.

Naturalistic Developmental Behavioral Interventions (NDBIs) These approaches (e.g., PRT, ESDM) combine ABA principles with play-based, child-led activities. They target social communication, joint attention, and flexible play in more natural settings.

Speech and Language Therapy: Speech-language pathologists support children in developing communication skills, whether verbal, gestural, or supported through augmentative and alternative communication (AAC). This may include high-tech speech-generating devices, tablet-based systems, or low-tech tools such as the Picture Exchange Communication System (PECS). Therapy may focus on vocabulary, grammar, conversation skills, pragmatic language, or building functional communication using AAC or PECS to help children express needs, make choices, and participate socially.

Occupational Therapy (OT) and Physical Therapy (PT): OT addresses sensory processing, fine motor skills, handwriting, self-care routines, and regulation strategies. PT targets gross motor skills, balance, coordination, and posture—areas in which many children with autism may show delays.

Medications for Symptom Management: There is no medication that treats ASD itself. However, medications may help with specific symptoms that interfere with functioning:

- Irritability or aggression
- OCD symptoms
- Anxiety
- ADHD symptoms
- Sleep difficulties

Two medications (risperidone and aripiprazole) are FDA-approved for severe irritability in children with autism. Other medications are used off-label to address co-occurring symptoms when behavior therapy alone is not sufficient.

Complementary and Supportive Therapies: Some families explore additional therapies that, while not core treatments, may support engagement or regulation:

- Equine-assisted therapy
- Music therapy
- Art therapy
- Social skills groups

These approaches may improve motivation, connection, or emotional expression but should accompany—not replace—evidence-based interventions.

Medical Care and Monitoring: Some children with autism have co-occurring medical or developmental needs. Regular checkups and coordinated care can address concerns such as seizures, hearing or vision differences, sleep difficulties, or gastrointestinal problems. Managing these conditions often improves behavior, attention, and readiness to learn.

Support for Families: Caregivers play a central role in a child's progress. Parent coaching, community resources, and support groups can help caregivers better understand their child's developmental profile and learn strategies to support communication, regulation, and daily living skills. Caring for a child with autism can be stressful, and families may face additional emotional, financial, and logistical demands. Some studies suggest that divorce rates are higher among parents of children with autism because stress levels can be high. Families benefit from practical and emotional support. It is also important to support siblings, who may feel overlooked or carry extra responsibilities. Support may include learning communication or behavioral strategies, accessing respite care, and finding local or online autistism community networks. When caregivers and siblings feel supported, children and families benefit directly.

Preparing for Adolescence and Adulthood: As children with autism grow older, treatment also focuses on increasing independence. Transition planning may include developing life skills, exploring vocational interests, increasing community participation, and supporting safety and self-advocacy.

Teens may work on skills such as:

- Preparing simple meals
- Using public transportation with support
- Managing personal hygiene routines
- Practicing workplace behaviors in supported settings

The Overall Goal: The purpose of treatment is not to change who a child is, but to help them participate more fully in the world. With the right supports, children with autism can build meaningful relationships, engage in their communities, and develop the skills needed for greater independence across childhood and into adulthood.

5.8 What Is the Prognosis?

Prognosis in Autism Spectrum Disorder varies widely, reflecting the broad range of strengths, challenges, and developmental paths seen in children with autism. ASD is a lifelong neurodevelopmental condition, but outcomes can improve significantly when children receive early, consistent, and well-matched supports.

Some children make substantial gains in communication, social understanding, daily living skills, and academic achievement over time. Others may continue to need moderate or significant support across settings. Progress is not linear—children may develop quickly during certain periods and more gradually in others.

A child's long-term outlook is shaped by several factors:

- **Early identification and intervention:** Children who receive high-quality intervention in the preschool years often show stronger communication and adaptive skills later.
- **Language development:** Gaining functional language by early school age is one of the strongest predictors of long-term independence.
- **Cognitive and adaptive skills:** Cognitive abilities and daily living skills both contribute to a child's ability to navigate school, relationships, and adulthood.
- **Co-occurring conditions:** Anxiety, ADHD, intellectual disability, or medical issues can affect learning and daily functioning, but addressing these needs improves overall outcomes.
- **Family and school support:** Stable routines, supportive relationships, and access to appropriate educational services play a major role in development.

As children with autism reach adolescence and adulthood, their strengths often become clearer. Some excel academically, pursue careers, and live independently or with minimal support. Others may require ongoing assistance with communication, self-care, or decision-making. Importantly, social understanding often continues to grow into adulthood, and many individuals develop strong self-advocacy skills.

Overall, prognosis is not about "curing" autism but about helping each child build meaningful skills, relationships, and independence at their own pace. With appropriate supports, children with autism can lead fulfilling, connected, and productive lives.

5.9 Prevalence & Statistics

Autism Spectrum Disorder is more commonly identified today than in past decades, but this rise likely reflects changes in diagnostic practice and awareness.

Recent estimates (2022) from the Centers for Disease Control and Prevention (CDC) suggest that approximately 1 in 31 children in the United States is diagnosed with ASD. Prevalence varies across states and communities due to differences in access to evaluation, reporting practices, and availability of services.

ASD is diagnosed more frequently in boys than girls, with ratios ranging from 3:1 to 4:1. However, many researchers believe girls are underdiagnosed because they may mask symptoms, show fewer repetitive behaviors, or develop compensatory social strategies that make their challenges less visible.

Prevalence also differs across racial, ethnic, and socioeconomic groups. Historically, children from marginalized communities have been diagnosed later or missed entirely due to disparities in healthcare access, cultural biases in screening tools, and reduced access to specialists. As screening improves and becomes more equitable, identification rates in these groups continue to rise.

Importantly, increased prevalence does not indicate an epidemic or widespread change in children's development. Contributing factors include:

- Broader diagnostic criteria
- Better awareness among parents and professionals
- Increased screening in early childhood
- Improved access to evaluations
- Recognition of milder or subtler presentations

ASD occurs across all racial, ethnic, cultural, and socioeconomic groups. Understanding prevalence helps communities plan for appropriate services, supports, and early identification efforts.

5.10 Reflection

Reflect on the information in this chapter and consider how diagnostic criteria, contributing factors, and treatment approaches shape our understanding of autism. These questions are meant to help students think critically about how ASD is identified and supported across development.

1. How does the concept of a spectrum help explain the wide range of strengths and challenges seen in children with autism?
2. Why is early identification so important, and how might delayed diagnosis affect a child's developmental trajectory?

5.11 Discussion Questions

1. Consider the DSM-5-TR criteria for ASD. How might cultural differences, gender expectations, or masking behaviors influence whether a child is identified?
2. What are some challenges clinicians face when distinguishing ASD from other developmental conditions such as language disorders or ADHD?
3. Think about the treatments described in this chapter. How do educational supports, therapies, and medications each target different aspects of ASD?
4. Prevalence rates have risen over time. What factors—not related to biology—help explain why more children are being diagnosed today?

5.12 Key Terms

Augmentative and Alternative Communication (AAC): Tools or systems used to support or replace spoken language, ranging from picture-based boards to speech-generating devices.

Autism Spectrum Disorder (ASD): A neurodevelopmental condition characterized by differences in social communication and restricted or repetitive patterns of behavior.

Comorbidity: The presence of more than one condition or disorder at the same time.

Differential Diagnosis: The process of distinguishing ASD from other conditions that may present with similar features.

Expressive Communication: The ability to use language—spoken words, gestures, signs, or AAC—to convey thoughts, needs, and feelings.

Reciprocity: The back-and-forth flow of social interaction, including sharing emotions, taking conversational turns, and responding to others' bids for connection.

Receptive Communication: The ability to understand language, including spoken words, gestures, instructions, and social cues.

Restricted Interests: Highly focused, intense interests that may dominate a child's play or conversation.

Repetitive Behaviors: Actions or movements that occur repeatedly, such as hand flapping, lining up objects, or repeating phrases.

Self-Stimulatory Behavior (Stimming): Repetitive movements, sounds, or actions—such as rocking, hand flapping, or repeating words—that help individuals regulate sensory input or emotions.

Social Communication: The ability to use and understand language, gestures, eye contact, and social cues during interaction.

Specifiers: Additional descriptors used to clarify an ASD diagnosis, including intellectual impairment, language impairment, or known genetic conditions.

6 Attention-Deficit/Hyperactivity Disorder (ADHD)

6.0.0.1 *Take a Moment: What Do You Think ADHD Is?*

Before diving in, pause and notice what comes to mind when you hear "ADHD." Do you picture a child bouncing off the walls? Someone zoning out in class? A teenager who forgets everything? Most people have absorbed a mix of stereotypes, half-truths, and personal experiences. Think about where your ideas came from—school, family, media, social conversations—and what feelings you associate with the term. As you move through this chapter, compare your starting assumptions with what developmental science, clinical practice, and the real lived experiences of children and their families actually show.

6.1 What Is ADHD?

Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterized by persistent patterns of inattention and/or hyperactivity–impulsivity that interfere with a child's daily functioning or development. According to the DSM-5-TR, these symptoms must be developmentally inappropriate, present in more than one setting (such as home and school), and evident before age 12. ADHD is not caused by laziness, poor parenting, or lack of discipline. It is important to note that while parenting does not cause ADHD, parents who are unsure how to respond may sometimes (without meaning to) reinforce challenging behaviors by giving in, removing demands, or offering attention at moments when the behavior escalates. This does not cause ADHD, but it can shape how symptoms play out in daily life.

Children with ADHD may struggle academically, socially, and emotionally—not because they lack ability, but because their attention and regulatory systems operate differently. With appropriate supports, accommodations, and evidence-based interventions, many children develop strong coping skills and thrive across school and home environments.

6.2 What Does ADHD Look Like in Children?

ADHD can look very different depending on a child's age, developmental stage, and environment. Symptoms often show up in everyday routines—during play, learning, social interac-

tions, and transitions. Some children appear constantly active; others are quietly inattentive and overlooked. What ties these presentations together is that the behaviors are more intense, more frequent, and more impairing than what is typically seen in children of the same age. The following sections show how ADHD may look across developmental periods.

6.2.0.1 Early Childhood (Toddlers and Preschoolers)

- Difficulty sitting for stories or structured activities
- Constant movement, climbing, or running even when others are calm
- Trouble waiting their turn or sharing
- Difficulty following simple instructions
- Easily frustrated, with quick emotional outbursts
- Short attention span for play activities unless highly preferred
- Frequently shifting from one activity to another without finishing any

A preschool example: A 4-year-old begins a puzzle, leaves after 30 seconds to jump on the couch, interrupts peers during play, and needs repeated reminders to follow simple directions like "Put your cup on the counter."

6.2.0.2 School-Age Children (Kinder to Middle School)

- Difficulty sustaining attention during lessons or independent work
- Frequent careless mistakes in schoolwork
- Trouble organizing materials, losing items like pencils or homework
- Excessive talking or blurting out answers
- Difficulty staying seated; fidgeting or squirming
- Impulsive decisions that lead to social misunderstandings
- Struggles completing multi-step tasks without supervision

A classroom example: A 9-year-old starts a worksheet but becomes distracted by noises in the hallway, blurts out answers without raising their hand, and loses their homework folder several times a week.

6.2.0.3 Adolescents (Middle to High School)

- Difficulty planning ahead or keeping track of assignments
- Trouble with time management and meeting deadlines
- Impulsive decisions (social, academic, or risk-taking behaviors)
- Restlessness that feels internal—described as "can't shut my brain off"
- Difficulty sustaining attention during reading, lectures, or long tasks

- Trouble with independent responsibilities such as managing schedules, chores, or transportation

An adolescent example: A 15-year-old intends to study for a test but becomes absorbed in their phone for hours, forgets upcoming due dates, interrupts teachers during discussions, and struggles to complete multi-step projects without frequent reminders.

6.3 How Do We Diagnosis ADHD?

Diagnosing ADHD is a careful, multi-step process that benefits from a clear, streamlined approach, integrating observations, interviews, and testing while distinguishing symptoms from those of other conditions. Like other neurodevelopmental disorders, ADHD cannot be identified through a single test, checklist, or brief conversation. Instead, clinicians rely on a comprehensive evaluation that examines behavior across settings, considers developmental expectations, and rules out other possible explanations. ADHD is diagnosed when a child meets the DSM-5-TR criteria and the symptoms meaningfully interfere with daily functioning.

A strong diagnostic assessment includes interviews, behavior rating scales, observations, and sometimes cognitive or academic testing. Because ADHD symptoms overlap with many other conditions—such as learning disorders, anxiety, sleep problems, trauma, or hearing difficulties—clinicians must evaluate the full context of the child's life.

6.3.1 DSM-5-TR Criteria for ADHD

The DSM-5-TR organizes ADHD symptoms into two domains: Inattention and Hyperactivity/Impulsivity. A child may meet criteria in one domain or both. Symptoms must be present for at least six months, occur more frequently than expected for the child's developmental level, and appear in two or more settings (e.g., home and school).

Below are the five major criteria (A–E) with brief explanations and examples.

6.3.1.1 Criterion A: Persistent Inattention and/or Hyperactivity–Impulsivity

The child shows at least six symptoms from one or both domains for at least six months to a degree that is inconsistent with developmental level and that negatively impacts social or academic functioning. For older adolescents and adults (age 17+), at least five symptoms are required.

Inattention Symptoms

- Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or during other activities.

- Often has difficulty sustaining attention in tasks or play activities.
- Often does not seem to listen when spoken to directly.
- Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace.
- Often has difficulty organizing tasks and activities.
- Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort.
- Often loses things necessary for tasks or activities.
- Is often easily distracted by extraneous stimuli.
- Is often forgetful in daily activities. These symptoms are not due to defiance or difficulty understanding instructions.

Hyperactivity and Impulsivity Symptoms

- Often fidgets with or taps hands or feet or squirms in seat.
- Often leaves seat in situations when remaining seated is expected.
- Often runs about or climbs in situations where it is inappropriate (in adolescents or adults, this may present as feeling restless).
- Often unable to play or engage in leisure activities quietly.
- Is often "on the go," acting as if "driven by a motor."
- Often talks excessively.
- Often blurts out an answer before a question has been completed.
- Often has difficulty waiting their turn.
- Often interrupts or intrudes on others (e.g., butts into conversations, uses others' belongings without permission).

6.3.1.2 Criterion B: Symptoms Occur in More Than One Setting

Symptoms must be present in at least two settings, such as home, school, sports, aftercare, or community settings.

- *Example:* A child who is inattentive only in math class but functions well everywhere else would not meet criteria.

6.3.1.3 Criterion C: Several Symptoms Were Present Before Age 12

Even if the child is evaluated later, symptoms must have been observable during childhood. For many children, symptoms become more impairing when academic demands increase, but the underlying pattern was always present.

6.3.1.4 Criterion D: Symptoms Cause Significant Impairment*

The behaviors must interfere with academic, social, or daily functioning. Clinicians look for real-world consequences—academic problems, conflicts with peers, safety risks, or chronic disorganization.

6.3.2 Criterion E: Symptoms Are Not Better Explained by Another Condition

Clinicians must ensure symptoms are not primarily due to anxiety, trauma, intellectual disability, autism, or other medical or psychological factors. A careful differential diagnosis protects against mislabeling normal developmental struggles or other disorders as ADHD.

6.3.3 Specifiers

Predominantly Inattentive Presentation

- The child meets criteria for inattention but not hyperactivity/impulsivity.
- *Example:* A child who is quiet, easily distracted, loses materials, and struggles with follow-through but does not show high activity levels.

Predominantly Hyperactive/Impulsive Presentation

- The child meets criteria for hyperactivity/impulsivity but not inattention.

  - *Example:* A child who constantly moves, interrupts peers, and has trouble waiting but can focus well during preferred activities.

Combined Presentation

- The child meets criteria for both inattention and hyperactivity/impulsivity.

  - *Example:* A child who is distracted, disorganized, impulsive, and frequently in motion across home and school settings.

In Partial Remission

- Full diagnostic criteria were previously met, but fewer symptoms are present now. Some impairment remains.

  - *Example:* An adolescent whose hyperactivity has decreased with age but who still struggles with inattention and organization.

6.3.4 Severity

- **Mild:** Minimal symptoms beyond the threshold; minor impairment.

  - *Example:* A child who has difficulty with organization but generally manages school-work with minimal support.

- **Moderate:** Symptoms and impairment fall between mild and severe.

  - *Example:* A child who needs frequent redirection and has notable academic and social challenges.

- **Severe:** Many symptoms beyond diagnostic thresholds or significant impairment.

  - *Example:* A child who is unable to complete work, frequently disrupts class, and struggles to maintain peer relationships.

These specifiers and severity measures provide a more precise picture of the child's functioning and guide treatment planning by highlighting the nature and impact of the symptoms. a clearer picture of how ADHD manifests in each child, guiding treatment planning and communication among caregivers, educators, and clinicians.

6.3.5 Assessment Tools Used in Diagnosis

A proper ADHD evaluation does not rely on one test. Instead, clinicians integrate information from several sources to determine whether the DSM criteria are truly met. This mirrors the diagnostic approach used in the Intellectual Disability and Autism chapters.

Integrated, multi-informant behavioral data

- Clinicians gather detailed descriptions of behavior across settings (home, school, community). This includes parent interviews, teacher input, classroom observations, and developmental history. These data help determine whether symptoms are persistent, impairing, and inconsistent with developmental expectations.

Standardized ADHD rating scales These are validated tools used to quantify symptoms and compare a child's behavior to same-age peers:

- **Vanderbilt ADHD Diagnostic Rating Scale** (parent and teacher forms)
- **Conners-3** (parent, teacher, and self-report options)
- **ADHD Rating Scale–5**
- **BASC-3 Attention/Hyperactivity subscales** These measures support diagnosis but do not determine it alone.

Additional testing when needed

- Cognitive or academic assessments help identify learning disorders, language impairments, or other conditions that may mimic ADHD.

A clinician's job is to integrate all of this information—not treat any single tool as definitive.

6.3.6 Differential Diagnosis

ADHD shares features with many other disorders, and DSM-5-TR provides detailed guidance to help clinicians distinguish ADHD from conditions that may look similar. Below is a concise summary of those distinctions written in the same style as the ID and ASD chapters, using the child-focused, developmental lens your book uses.

Oppositional Defiant Disorder (ODD) Children with ODD may refuse tasks, argue, or resist demands, but this behavior stems from *negativity, hostility, or defiance*, not difficulty sustaining mental effort. A child with ADHD may abandon tasks because of inattention, forgetfulness, or impulsivity—not deliberate refusal. Some children with ADHD may develop secondary oppositional behaviors due to chronic frustration.

Intermittent Explosive Disorder (IED) Both ADHD and IED involve impulsivity, but IED includes episodes of *serious aggression toward others*. ADHD does not. Children with IED also do not show the persistent attention difficulties characteristic of ADHD. IED is uncommon in childhood but may co-occur.

Other Neurodevelopmental Disorders Repetitive motor behaviors in stereotypic movement disorder or autism spectrum disorder can be mistaken for restlessness, but these movements are fixed, rhythmic, or ritualized. In ADHD, fidgeting is generalized, non-repetitive, and linked to difficulty inhibiting movement. Tourette's disorder involves tics—sudden, rapid, recurrent movements or sounds—which require extended observation to differentiate from ADHD-related fidgetiness.

Specific Learning Disorder Children with learning disorders may appear inattentive during tasks that rely on weak academic skills (e.g., reading, writing, math). Their attention improves when working with material that does not involve the impaired skill. In ADHD, inattention is pervasive across many tasks, not limited to one academic domain.

Intellectual Developmental Disorder (Intellectual Disability) Symptoms of ADHD are common when children with intellectual disability face tasks inappropriate for their developmental level. ADHD should be diagnosed only when inattention or hyperactivity is *excessive for the child's mental age* and appears in settings beyond challenging academic tasks.

Autism Spectrum Disorder (ASD) Both conditions may involve inattention, social difficulties, and behavioral challenges. However, ASD includes *social communication differences* and *restricted/repetitive behaviors*, whereas ADHD centers on inattention and impulse regulation. Tantrums in ASD often reflect difficulty tolerating change, while in ADHD they more typically stem from impulsivity or poor self-control.

Reactive Attachment Disorder (RAD) Children with RAD may show social disinhibition, but they do not demonstrate the full ADHD symptom cluster. Their difficulties reflect disruptions in early attachment and relationships, not attentional or inhibitory control deficits.

Anxiety Disorders In anxiety, inattention stems from *worry or rumination.* In ADHD, attention shifts rapidly toward novel or stimulating activities. Restlessness in anxiety is tied to fear; in ADHD, it reflects difficulty regulating activity level.

Posttraumatic Stress Disorder (PTSD) In young children, PTSD may present with irritability, restlessness, and poor concentration—symptoms that can mimic ADHD. Without awareness of trauma exposure, caregivers may misinterpret these as ADHD. A thorough trauma history is essential.

Depressive Disorders Difficulty concentrating may appear in depressive episodes, but attentional problems occur primarily during periods of low mood. ADHD symptoms are persistent across emotional states.

Bipolar Disorder Both disorders can involve increased activity, impulsivity, and poor concentration. However, bipolar symptoms are *episodic* and accompanied by elevated mood, grandiosity, or other manic features. ADHD symptoms are chronic and do not reflect mood elevation.

Disruptive Mood Dysregulation Disorder (DMDD) DMDD involves chronic irritability and severe temper outbursts. While many children with DMDD also meet criteria for ADHD, impulsivity and inattention are not core features of DMDD itself.

Medication-Induced Symptoms Some medications (e.g., bronchodilators, thyroid hormones, neuroleptics causing akathisia) can produce hyperactivity or inattention. These are diagnosed as medication-induced symptoms rather than ADHD.

Neurocognitive Disorders ADHD requires symptoms beginning before age 12. Neurocognitive disorders involve a *decline* from previous functioning, typically in adulthood. This developmental timeline differentiates the two.

This DSM-aligned differential diagnosis section ensures clinicians consider all possible explanations before confirming ADHD.

6.3.7 Comorbidities

ADHD commonly co-occurs with other disorders, and understanding these comorbidities is essential for accurate diagnosis and treatment planning. The DSM-5-TR highlights several patterns of overlap and important developmental differences.

Oppositional Defiant Disorder (ODD) ODD co-occurs in about half of children with the combined presentation of ADHD and in about a quarter of those with the predominantly inattentive presentation. Children with ADHD may develop oppositional behaviors as a reaction to chronic frustration, missed expectations, or repeated correction.

Conduct Disorder (CD) Conduct disorder appears in roughly a quarter of children or adolescents with the combined presentation of ADHD. Co-occurring ADHD and CD are associated with greater behavioral impairment and higher risk for later difficulties.

Disruptive Mood Dysregulation Disorder (DMDD) Most children and adolescents diagnosed with DMDD also meet criteria for ADHD. A smaller proportion of children with ADHD meet criteria for DMDD. Mood dysregulation, irritability, and explosive outbursts can complicate diagnostic clarity and require careful assessment.

Anxiety, Depression, OCD, and Intermittent Explosive Disorder These disorders occur in a minority of individuals with ADHD but at rates higher than in the general population. Anxiety and depression often emerge in later childhood or adolescence, influenced by academic struggles or social difficulties related to ADHD.

Neurodevelopmental Disorders ADHD may co-occur with:

- Specific learning disorder
- Autism spectrum disorder
- Intellectual developmental disorder
- Language disorders
- Developmental coordination disorder
- Tic disorders These combinations produce varied symptom profiles and require integrated intervention plans.

Sleep Disorders Sleep difficulties are common, affecting 25–50% of individuals with ADHD. Associated sleep disorders include insomnia, circadian rhythm sleep–wake disorder, sleep-disordered breathing, restless legs syndrome, and hypersomnolence. Poor sleep can worsen attention, behavior, and mood.

Medical Conditions Individuals with ADHD have somewhat elevated rates of allergy and autoimmune conditions, as well as epilepsy. These medical issues do not cause ADHD but may influence symptom expression or treatment decisions.

This comorbidity profile illustrates that ADHD rarely occurs in isolation and that comprehensive assessment must consider co-occurring developmental, emotional, behavioral, and medical conditions.

6.4 Contributing Factors

ADHD develops from a combination of biological, developmental, and environmental influences. No single factor causes ADHD, and the DSM-5-TR emphasizes that it is a neurodevelopmental disorder, meaning it reflects differences in brain development that emerge early in life. The following sections summarize the major contributing factors in a clear, student-friendly way, similar to the Intellectual Disability and Autism chapters.

6.4.0.1 Genetic Factors

ADHD is one of the most heritable childhood conditions. Family and twin studies consistently show strong genetic influence, with children who have a biological parent or sibling with ADHD being at significantly higher risk. These genetic factors affect brain systems involved in attention, inhibition, reward processing, and regulation of activity levels. For example, a child with a parent who has ADHD may show similar struggles with organization, distractibility, or impulsivity starting in early childhood.

6.4.0.2 Prenatal and Perinatal Factors

Certain conditions during pregnancy or birth are associated with increased odds of ADHD, including:

- Prenatal exposure to nicotine, alcohol, or certain drugs
- Premature birth or low birthweight
- Pregnancy or birth complications affecting oxygen availability

These factors do not guarantee ADHD but may influence the developing brain.

6.4.0.3 Environmental and Psychosocial Factors

Environmental stressors do not *cause* ADHD, but they can shape how symptoms appear or how impairing they become. These include:

- Chronic stress in the home
- Parenting practices characterized by high conflict or inconsistent structure
- Exposure to environmental toxins (e.g., lead)
- Early adversity or unstable caregiving environments

Important: The DSM-5-TR is clear that ADHD is not caused by parenting. However, when caregivers lack support or strategies, they may unintentionally reinforce challenging behaviors—for example, giving in during tantrums or allowing avoidance of difficult tasks.

This section reinforces that ADHD is a complex, multifactorial condition—not the result of a single cause—and that both biology and environment shape how symptoms emerge and evolve.

6.5 How Do We Treat ADHD?

Treatment for ADHD focuses on helping children manage symptoms, improve daily functioning, and build skills for long-term success. Because ADHD affects attention, impulse control, activity level, and executive functioning, effective treatment typically involves multiple approaches that work together. The DSM-5-TR emphasizes that ADHD is highly responsive to evidence-based intervention, and most children benefit from a combination of behavioral, educational, and, when appropriate, medical supports.

Behavioral Interventions: Behavior therapy is a core component of ADHD treatment, especially for younger children. These interventions teach caregivers and teachers how to structure environments, reinforce desired behaviors, and reduce behavior patterns that stem from inattention or impulsivity.

Common behavioral approaches include:

- **Parent management training:** Caregivers learn predictable routines, clear expectations, effective commands, positive reinforcement, and consistent consequences.
- **Behavioral classroom interventions:** Daily report cards, token systems, visual schedules, and structured transitions reduce demands on working memory and increase on-task behavior.
- **Skill-building:** Teaching children strategies for organization, emotional regulation, turn-taking, and problem-solving.

Medication: Stimulant medication (such as methylphenidate or amphetamine formulations) is one of the most well-studied and effective treatments for ADHD. Stimulants help improve attention, reduce hyperactivity and impulsivity, and enhance executive functioning. Non-stimulant options (e.g., atomoxetine, guanfacine, clonidine) are available for children who do not respond well to stimulants or experience side effects.

Educational Supports and Accommodations: Because ADHD affects learning and classroom behavior, school-based supports are essential. These may include:

- Preferential seating
- Extended time on tests or assignments
- Reduced-distraction workspaces

- Visual schedules and task breakdowns
- Movement breaks
- Check-ins for organization and planning

Children may receive accommodations through a 504 Educational Plan or more intensive supports through an Individualized Education Program (IEP) when ADHD substantially limits learning or behavior.

Psychosocial and Mental Health Supports: Many children with ADHD experience co-occurring anxiety, mood challenges, or social difficulties. Counseling, cognitive-behavioral therapy (CBT), and social-skills training can help address these areas.

The Overall Goal: The overall goal of ADHD treatment is to help the child function successfully across home, school, and community settings. Effective treatment aims to reduce core symptoms, strengthen self-regulation skills, and create environments that support the child's developmental needs. Ultimately, the goal is to help the child build the tools, confidence, and strategies needed to thrive academically, socially, and emotionally—now and as they grow into adolescence and adulthood.

6.6 What Is the Prognosis?

Most children with ADHD continue to experience symptoms into adolescence and adulthood, but the way symptoms appear often changes over time. Hyperactivity may become less outwardly visible and turn into a sense of internal restlessness, while difficulties with attention, organization, and planning may become more noticeable as academic and social demands increase.

Many individuals with ADHD thrive when they receive consistent support, evidence-based treatment, and environments that match their developmental needs. Early intervention improves outcomes, but it is never too late to benefit from structured supports and skill-building. Children with ADHD can succeed academically, develop meaningful friendships, and lead fulfilling adult lives.

Factors Associated With Positive Outcomes

- Stable routines and consistent expectations at home and school
- Access to behavioral therapy and/or appropriate medication management
- Supportive caregiver relationships
- Strong school accommodations and academic guidance
- Early identification of co-occurring disorders (e.g., learning disorders, anxiety)

If ADHD symptoms go untreated or if children do not have opportunities to learn regulation, organization, and coping skills, the challenges often persist into adulthood. This can lead to long-term difficulties in areas such as maintaining employment, managing daily responsibilities,

sustaining healthy relationships, and navigating family life. Early and consistent support helps build the skills needed to reduce these risks and promote successful adult functioning.

6.7 Prevalence & Statistics

ADHD is one of the most common neurodevelopmental disorders of childhood. According to the DSM-5-TR, approximately 5% of children worldwide meet criteria for ADHD, with U.S. studies often reporting 5–7% depending on the methods used. Symptoms frequently continue into adulthood, and about 2.5% of adults meet diagnostic criteria.

ADHD is diagnosed more often in males than females, with a ratio of about 2:1 in community samples. Girls are more likely to display predominantly inattentive symptoms, which can make ADHD harder to detect. These brief trends help clarify that ADHD is both common and developmentally persistent across childhood, adolescence, and adulthood.

6.8 Reflection

Take a moment to consider how your understanding of ADHD has shifted after reading this chapter.

1. What assumptions did you start with, and how does the research and clinical information presented here clarify or challenge those ideas?
2. What aspects of ADHD were most surprising or different from what you previously believed?
3. How does understanding ADHD as a neurodevelopmental condition—not a behavioral choice—change the way you think about children who show these symptoms?

6.9 Discussion Questions

1. How might ADHD look different across early childhood, middle childhood, and adolescence? What developmental factors shape those differences?
2. Why is it important that ADHD symptoms appear in more than one setting? What challenges might this create for families or schools?
3. How can caregivers or teachers unintentionally reinforce ADHD-related behaviors, and what strategies can help prevent this?
4. How does understanding comorbidities change your interpretation of a child's behavior?
5. Which treatment approaches seem most effective for different age groups, and why?

6.10 Key Terms

Attention-Deficit/Hyperactivity Disorder (ADHD): A neurodevelopmental disorder involving developmentally inappropriate levels of inattention and/or hyperactivity-impulsivity that interfere with daily functioning.

Inattention: Difficulty sustaining focus, following through on tasks, organizing materials, or managing distractibility.

Hyperactivity/Impulsivity: Excessive movement, restlessness, interrupting, acting without thinking, or difficulty waiting.

Executive Functioning: Cognitive processes that support planning, organization, time management, working memory, and self-regulation.

Behavioral Interventions: Evidence-based strategies that modify environments and teach skills to improve attention, organization, and behavior.

Stimulant and Non-Stimulant Medication: Medical treatments that reduce ADHD symptoms by improving attention, impulse control, and regulation.

Part II

Disruptive, Impulse-Control, and Conduct Disorders

Overview of Disruptive, Impulse-Control, and Conduct Disorders

Disruptive, impulse-control, and conduct disorders are a group of conditions characterized by difficulties with emotional and behavioral regulation. Children with these disorders often struggle to manage impulses, follow rules, and consider the consequences of their actions. The behaviors are more intense, frequent, or developmentally inappropriate than typical misbehavior, and they cause significant impairment in home, school, or peer relationships.

These disorders share features of conflict with authority figures, violations of social norms, or aggressive and defiant behaviors. However, each condition presents in its own distinct way. Some children primarily demonstrate chronic irritability or anger, others show persistent patterns of defiance, and others exhibit serious rule violations or aggression toward people or property. Importantly, these behaviors are not simply a result of poor parenting or a child being "bad"—they reflect underlying challenges in emotional regulation, social understanding, and behavioral control.

Understanding this category also requires attention to developmental patterns. Many behaviors that appear disruptive at first glance may reflect anxiety, trauma exposure, or communication difficulties. These disorders often co-occur with ADHD, mood disorders, or learning disabilities, and without appropriate intervention, they can lead to worsening functional and social outcomes over time.

Disruptive, Impulse-Control, and Conduct Disorders (DSM-5-TR):

- Oppositional Defiant Disorder (ODD)
- Intermittent Explosive Disorder (IED)
- Conduct Disorder (CD)
- Antisocial Personality Disorder (for adults)
- Pyromania
- Kleptomania
- Other Specified Disruptive, Impulse-Control, and Conduct Disorder
- Unspecified Disruptive, Impulse-Control, and Conduct Disorder

7 Oppositional Defiant Disorder

7.0.0.1 *Take a Moment: What Do You Think Oppositional Defiant Disorder Is?*

What do you think of when you hear the words "oppositional" and "defiant?" Maybe you think about children who seem unusually argumentative or easily angered. When does this go beyond typical behavior and become a persistent pattern that interferes with daily life?

7.1 What Is Oppositional Defiant Disorder?

Oppositional Defiant Disorder (ODD) is a persistent pattern of angry or irritable mood, argumentative or defiant behavior, or vindictiveness lasting at least six months and occurring more often than expected for the child's developmental level. These behaviors disrupt relationships and functioning at home, school, and in the community.

7.2 What Does Oppositional Defiant Disorder Look Like?

Children with ODD show chronic problems regulating anger, following rules, and interacting cooperatively with adults. Their behaviors appear across settings and are more intense and frequent than typical misbehavior.

- **Angry/Irritable Mood**

    - *Example: A child becomes easily annoyed, often loses their temper, or frequently appears resentful.*

- **Argumentative/Defiant Behavior**

    - *Example: A child actively refuses adult requests, argues with teachers or parents, or deliberately breaks rules.*

- **Vindictiveness**

    - *Example: A child seeks revenge or engages in spiteful behavior toward peers or siblings.*

7.3 How Do We Diagnose It?

Diagnosis requires a consistent pattern of behaviors causing impairment in school, home, or peer relationships. Clinicians gather information from caregivers, teachers, and children to determine whether the symptoms exceed developmentally typical behavior.

DSM-5-TR Diagnostic Criteria: ODD is defined by patterns of angry or irritable mood, argumentative or defiant behavior, and vindictiveness lasting at least six months, with at least four symptoms present and exhibited during interactions with at least one individual who is not a sibling.

7.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Symptoms: A pattern of angry/irritable mood, argumentative/defiant behavior, or vindictiveness lasting at least six months, with four symptoms from any category.

Angry/Irritable Mood

- **Often loses temper**

  - *Example: A child may shout or scream when frustrated by simple tasks.*

- **Is often touchy or easily annoyed**

  - *Example: A child reacts with irritation to minor comments or redirection.*

- **Is often angry and resentful**

  - *Example: A child frequently appears bitter or upset when corrected.*

Argumentative/Defiant Behavior

- **Often argues with authority figures**

  - *Example: A child debates every instruction given at home or school.*

- **Often actively defies or refuses to comply with rules**

  - *Example: A child intentionally ignores instructions to stop disruptive behavior.*

- **Often deliberately annoys others**

  - *Example: A child repeatedly interrupts peers or provokes siblings.*

- **Often blames others for mistakes or misbehavior**

- *Example: A child refuses responsibility for their actions, insisting others are at fault.*

Vindictiveness

- **Has been spiteful or vindictive at least twice in the past six months**

  - *Example: A child may hide another child's belongings to "get back" at them.*

Criterion B: Impairment: The disturbance is associated with distress in the individual or others in their immediate social context, or it negatively impacts functioning.

Criterion C: Exclusionary Considerations: The behaviors do not occur exclusively during psychotic, substance-related, depressive, or bipolar disorders and do not meet criteria for disruptive mood dysregulation disorder.

7.3.2 Assessment Tools

Tools often include caregiver and teacher rating scales, behavior checklists, and structured interviews assessing anger regulation, compliance, and conflict interactions.

7.3.3 Differential Diagnosis

Oppositional defiant disorder must be distinguished from several other conditions that can involve irritability, emotional outbursts, or conflict with authority. Conduct disorder involves more severe behaviors, including aggression and property destruction, while adjustment disorder presents with oppositional behaviors that are directly tied to a stressor and resolve within months once the stressor ends. Trauma-related disorders can include dysregulated or defiant behaviors linked to traumatic events, and ADHD may appear oppositional when difficulties with sustained effort or regulation affect compliance. Mood disorders, disruptive mood dysregulation disorder, and intermittent explosive disorder may involve irritability or anger but differ in timing, severity, and mood components. Developmental, communication, and anxiety disorders can also resemble oppositionality when challenges with comprehension, social fear, or cognitive functioning hinder the child's ability to follow directions. Clinicians examine context, duration, severity, and underlying causes to determine whether ODD provides the best explanation for the behavior pattern.

7.3.4 Comorbidities

ODD commonly co-occurs with other disorders. The DSM-5-TR notes high comorbidity with ADHD, and many children with ODD may later develop Conduct Disorder. Anxiety disorders, depressive disorders, and disruptive mood dysregulation disorder also frequently co-occur. Comorbidities tend to worsen impairment, affect treatment planning, and influence long-term outcomes.

7.4 Contributing Factors

ODD emerges from interacting biological, temperamental, and environmental factors contributing to difficulties with emotional regulation and behavioral control.

Genetic Factors: Children with a family history of disruptive behavior disorders or mood disorders may be more likely to develop ODD.

Environmental Factors: Harsh, inconsistent, or neglectful parenting, exposure to conflict, and limited positive reinforcement can contribute to the development of ODD.

7.5 How Do We Treat Oppositional Defiant Disorder?

Treatment focuses on improving emotion regulation, strengthening parent–child relationships, and teaching consistent behavior-management strategies.

Parent Management Training: Teaches caregivers consistent discipline, structured routines, and positive reinforcement strategies to reduce defiant behaviors.

Cognitive Behavioral Therapy: Helps children identify emotional triggers, build frustration tolerance, and develop problem-solving skills.

Family Therapy: Addresses communication patterns, conflict cycles, and family dynamics that contribute to oppositional behavior.

School-Based Interventions: Includes behavior plans, structured expectations, and coordination with teachers to support consistency across settings.

Medication: While no medication treats ODD directly, medications may be used to address co-occurring conditions like ADHD, anxiety, or mood disorders.

The Overall Goal: The overall goal of treatment is to help children develop healthier emotion regulation skills, reduce the frequency and intensity of oppositional behaviors, strengthen positive family interactions, and improve functioning across settings such as home, school, and peer relationships. Effective interventions aim to replace conflict cycles with predictable

structure, supportive communication, and constructive problem-solving so that children can participate more successfully in daily routines.

7.6 What Is the Prognosis?

With early, consistent intervention, many children experience meaningful improvement in anger regulation and compliance. Without support, ODD can persist into adolescence and increase the likelihood of later behavioral or mood disorders.

7.7 Prevalence & Statistics

ODD is estimated to affect approximately 3% of children, with higher rates in males prior to adolescence. Symptoms typically begin in preschool and may intensify without intervention.

7.8 Reflection

Consider how oppositional behaviors might look different across home and school settings.

1. What situations seem to trigger the most conflict for a child with ODD?
2. How might adults unintentionally reinforce oppositional behaviors?

7.9 Discussion

1. How do we distinguish ODD from normal developmental defiance?
2. Why is consistency across caregivers important in treating ODD?
3. What role does emotion regulation play in oppositional behavior?
4. How might school environments contribute to improvement or worsening of symptoms?
5. How can community and school supports work together to help children with ODD?

7.10 Key Terms

Angry/Irritable Mood: frequent, intense anger or annoyance.

Argumentative/Defiant Behavior: persistent refusal to follow rules or comply with authority.

Cognitive Behavioral Therapy: therapy targeting thoughts, emotions, and behaviors.

Conduct Disorder: severe pattern of rule violations and aggression.

Parent Management Training: intervention teaching caregivers structured, consistent behavior strategies.

Vindictiveness: intentional attempts to harm or get back at others.

8 Conduct Disorder

8.0.0.1 *Take a Moment: What Do You Think Conduct Disorder Is?*

Conduct disorder is often associated with "bad behavior," but the clinical picture is far more complex. Students frequently imagine extreme aggression or law-breaking, yet many children show less obvious but still serious patterns of rule violations, deceit, or property destruction. What assumptions do you already have about what conduct problems look like? What might lead a young person down this path? Take a moment to consider where your ideas come from.

8.1 What Is Conduct Disorder?

Conduct disorder is a disruptive behavior disorder characterized by a persistent pattern of violating the rights of others or major societal norms. Behaviors may include aggression toward people or animals, destruction of property, deceit or theft, and serious rule violations. Importantly, the pattern must be repetitive, persistent, and impairing. This disorder reflects significant challenges in emotion regulation, empathy, impulse control, and social functioning. The DSM-5-TR distinguishes between childhood-onset and adolescent-onset presentations and includes an important specifier: with limited prosocial emotions, which indicates particularly severe and stable patterns of callous and unemotional traits.

8.2 What Does Conduct Disorder Look Like in Children?

Conduct disorder can appear in many forms depending on age, environment, peer influences, and individual temperament. Some children show overt aggression; others engage in more covert behaviors like lying or property damage. Early-onset cases often display a long-standing pattern of difficult temperament, irritability, and rule-breaking beginning in elementary school. Adolescent-onset cases frequently emerge alongside deviant peer groups or social pressures and may include more situational rule violations.

8.2.0.1 Aggression Toward People or Animals

- Behaviors may include bullying or intimidating peers, starting fights, using weapons, or deliberately harming animals.

  – Example: A 10-year-old repeatedly threatens classmates and has been caught harming neighborhood pets.

8.2.0.2 Destruction of Property

- Behaviors such as arson or intentionally damaging others' belongings.

  – Example: A 12-year-old secretly sets small fires in a backyard shed and breaks windows in abandoned buildings.

8.2.0.3 Deceitfulness or Theft

- Behaviors such as breaking into homes or cars, lying to obtain goods, or stealing without confrontation.

  – Example: A 13-year-old breaks into lockers at school and routinely lies to avoid consequences.

8.2.0.4 Serious Violation of Rules

- Behaviors including persistent truancy, running away, or repeatedly breaking curfews despite consequences.

  – Example: A 12-year-old skips school several days a week and stays out overnight without informing caregivers.

Common examples include persistent truancy, running away from home overnight, or breaking curfews despite consequences.

8.3 How Do We Diagnose It?

Diagnosis requires a careful, multi-informant assessment and alignment with DSM-5-TR criteria. Typically caregivers and teachers provide interviews to assess the child.

8.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Persistent Pattern of Behavior Violating Other or Social Norms

A persistent pattern of behavior violating the rights of others or major societal norms. The DSM-5-TR lists 15 possible criteria, and a child must show at least 3 in the past 12 months and at least 1 in the past 6 months. All criteria are listed below:

Aggression to People and Animals

- Often bullies, threatens, or intimidates others
- Often initiates physical fights
- Has used a weapon capable of causing serious physical harm
- Has been physically cruel to people
- Has been physically cruel to animals
- Has stolen while confronting a victim (mugging, extortion, purse snatching)
- Has forced someone into sexual activity

Destruction of Property

- Has deliberately engaged in fire setting with intent to cause serious damage
- Has deliberately destroyed others' property

Deceitfulness or Theft

- Has broken into someone else's house, building, or car
- Often lies to obtain goods or favors or to avoid obligations
- Has stolen items of nontrivial value without confronting a victim (e.g., shoplifting)

Serious Violation of Rules

- Often stays out at night despite parental prohibitions, beginning before age 13
- Has run away from home overnight at least twice, or once for an extended period
- Is often truant from school, beginning before age 13

Criterion B: The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.

Criterion C: If the individual is age 18 years or older, criteria are not met for antisocial personality disorder.

8.3.2 Specifiers

Specifiers include childhood-onset type, adolescent-onset type, and unspecified onset. Clinicians may also add with limited prosocial emotions when traits such as lack of remorse or empathy are present.

Specify whether:

- Childhood-onset type: at least one symptom occurs before age 10
- Adolescent-onset type: no symptoms occur before age 10
- Unspecified onset: onset age cannot be determined

Specify if: with limited prosocial emotions must display at least two of the following characteristics persistently for 12 months across multiple settings:

- lack of remorse or guilt
- callous or lack of empathy
- unconcerned about performance
- shallow or deficient affect

8.3.3 Severity

Severity is based on symptom count and degree of harm: mild cases may involve minor rule violations; moderate cases include more frequent or harmful behaviors; severe cases involve significant aggression or property destruction.

Specify current severity:

- mild: few symptoms beyond required criteria, minimal harm
- moderate: symptoms and impact fall between mild and severe
- severe: many symptoms beyond those required, or significant harm to others

8.3.4 Assessment Tools Used in Diagnosis

Assessment requires information from multiple settings and informants. Two commonly used tools include:

NICHQ Vanderbilt Assessment Scales: standardized parent- and teacher-report measures commonly used to assess disruptive behavior patterns, including symptoms of ADHD, oppositionality, and conduct problems. The scales provide normed ratings across settings and help identify impairment and the need for further diagnostic evaluation.

CBCL (Child Behavior Checklist): A widely used parent- and teacher-report measure assessing externalizing and internalizing symptoms. The Externalizing scale helps identify

aggression, rule-breaking, and antisocial tendencies, providing normed scores that assist in distinguishing typical misbehavior from clinically significant concerns.

Additional tools may include school disciplinary records, structured interviews, and multi-informant behavior rating scales.

8.3.5 Differential Diagnosis

Oppositional defiant disorder is differentiated by its emphasis on anger, irritability, and defiance rather than violation of others' rights. Intermittent explosive disorder involves impulsive aggression rather than the planned or predatory behaviors common in conduct disorder. ADHD may contribute to impulsive rule-breaking, but ADHD alone does not include the severe antisocial behaviors seen here. Adjustment disorder with disturbance of conduct includes similar behaviors but only in response to an identifiable stressor and does not involve a persistent pattern. Substance use disorders may co-occur but do not fully explain the conduct symptoms. Disruptive mood dysregulation disorder presents with severe irritability and frequent outbursts but not the deliberate aggression or rule violations typical of conduct disorder. Personality disorders such as antisocial personality disorder must be diagnosed in adulthood, but conduct disorder serves as a precursor.

8.3.6 Comorbidities

Common comorbidities include ADHD, oppositional defiant disorder, substance use disorders, depressive disorders, anxiety disorders, and learning disorders. Children with the limited prosocial emotions specifier show particularly high rates of persistent antisocial behavior and may present with callous-unemotional traits.

8.4 Contributing Factors

Conduct disorder arises from the interaction of biological, psychological, and environmental factors. Genetic influences contribute to temperament traits such as impulsivity and low fear reactivity. Neurobiological factors may include differences in threat processing, reward sensitivity, or emotion regulation systems. Environmental contributions are substantial and include harsh or inconsistent parenting, exposure to violence, family conflict, peer rejection, deviant peer groups, and chronic stress. Community-level factors such as neighborhood crime and limited access to prosocial opportunities can also play a role.

8.5 How Do We Treat Conduct Disorder?

Treatment typically requires a comprehensive plan involving the child, family, and school environment. Early intervention is critical.

Parent Management Training: Teaches caregivers effective behavior management strategies, consistent consequences, and reinforcement of prosocial behaviors.

Cognitive-Behavioral Therapy: Helps youth develop anger management skills, problem-solving abilities, and alternative responses to conflict.

Multisystemic Therapy: An intensive, home-based therapy targeting the multiple systems influencing a child's behavior, including family, school, and peers.

Functional Family Therapy: Focuses on improving communication, reducing negativity, and promoting family cohesion.

Medications: There is no medication that treats conduct disorder itself, but medications may address comorbid conditions. Stimulants can reduce impulsivity in youth with ADHD; antidepressants may address mood symptoms; and atypical antipsychotics may be used cautiously to manage severe aggression when other interventions fail.

8.6 What Is the Prognosis?

Prognosis varies widely depending on severity, age of onset, and early access to intervention. Childhood-onset cases tend to have a more persistent course, higher risk of antisocial behavior in adulthood, and greater functional impairment. Adolescent-onset cases often improve as environmental supports increase and risky peer influences diminish. Early identification, consistent parenting, and engagement in treatment significantly improve long-term outcomes.

8.7 Prevalence and Statistics

Conduct disorder occurs in approximately 2-10% of youth, depending on community and clinical samples. Rates are typically higher in males and in urban settings. Childhood-onset cases are less common but associated with more severe and persistent outcomes.

8.8 Reflection

Think about the behaviors that define conduct disorder and the many pathways through which they might develop.

1. How might two children with similar behaviors develop conduct problems for very different reasons?
2. What protective factors could reduce the likelihood that early conduct problems escalate?

8.9 Discussion

1. In what ways do societal norms influence how we classify behaviors as problematic or pathological?
2. Why is the limited prosocial emotions specifier clinically important?
3. How might conduct disorder present differently in childhood versus adolescence?
4. What barriers might families face when engaging in treatment?
5. Why is early intervention so strongly emphasized in this disorder?

8.10 Key Terms

Adolescent-onset type: Onset of conduct disorder symptoms after age ten.

Aggression to people and animals: A symptom category involving physical harm or threats toward others.

Childhood-onset type: Onset of conduct disorder symptoms before age ten.

Deceitfulness or theft: A symptom category involving lying, breaking and entering, or stealing.

Destruction of property: A symptom category involving intentional damage to belongings or arson.

Limited prosocial emotions: A specifier indicating callous-unemotional traits such as lack of remorse or empathy.

Rule violations: Behaviors involving truancy, running away, or repeated disregard for rules.

9 Intermittent Explosive Disorder

9.0.0.1 *Take a Moment: What Do You Think Intermittent Explosive Disorder Is?*

Think about children who seem to go from zero to one hundred in seconds. What kinds of situations trigger their biggest reactions? When is a tantrum or outburst developmentally normal, and when does it cross into something clinically significant?

9.1 What Is Intermittent Explosive Disorder?

Intermittent Explosive Disorder (IED) is a disruptive and impulse-control disorder characterized by sudden, impulsive, disproportionate aggressive outbursts. These outbursts are not premeditated, arise rapidly, and are out of proportion to the situation. Between episodes, children may function relatively normally.

9.2 What Does Intermittent Explosive Disorder Look Like in Children?

IED in children involves recurrent, intense episodes of verbal or physical aggression that occur with little warning and are disproportionate to the trigger, reflecting the DSM requirement that the outbursts are impulsive and not premeditated. These episodes cause functional impairment at home, school, or with peers, and the child may show regret afterward or have difficulty understanding why the explosion occurred.

Recurrent behavioral outbursts: Multiple verbal or physical aggressive episodes that arise suddenly.

Aggression disproportionate to stressor: The intensity of the response greatly exceeds the provocation, such as a small frustration leading to hitting, throwing objects, or property damage.

Impulsivity: Outbursts occur spontaneously without planning, reflecting the diagnostic requirement that aggression is not premeditated.

Functional impairment: Episodes contribute to significant disruption in school, home life, or social relationships, aligning with DSM emphasis on clinically meaningful impairment.

9.3 How Do We Diagnose It?

Diagnosis requires identifying recurrent, impulsive aggressive outbursts that are clearly out of proportion to the trigger and not premeditated. These outbursts must cause impairment and cannot be better explained by another mental disorder, medical condition, or substance.

9.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Recurrent behavioral outbursts representing a failure to control aggressive impulses, manifested by either verbal aggression or physical aggression occurring twice weekly, on average, for a period of 3 months, and not resulting in damage or injury.

Criterion B: Three behavioral outbursts involving damage or destruction of property and/or physical assault involving injury within a 12-month period.

Criterion C: The magnitude of the aggression is grossly out of proportion to the provocation or stressor.

Criterion D: The outbursts are impulsive and not premeditated.

Criterion E: The outbursts cause distress or impairment.

Criterion F: The individual is at least 6 years old.

Criterion G: The aggression is not better explained by another disorder, substance use, or medical condition.

9.3.2 Assessment Tools Used in Diagnosis

Clinical interviews: Used to document frequency, triggers, context, and impairment associated with explosive episodes.

Behavior checklists (e.g., BASC, CBCL): Capture parent and teacher ratings of aggressive behaviors and emotional dysregulation.

School reports and behavioral observations: Provide real-world information about patterns of escalation, environmental triggers, and functional impairment.

9.3.3 Differential Diagnosis

IED must be differentiated from several DSM disorders. Oppositional Defiant Disorder involves chronic irritability and defiant behavior but not intense, impulsive explosive episodes. Conduct Disorder includes aggression that is often deliberate or predatory rather than sudden and unplanned. Disruptive Mood Dysregulation Disorder features persistent irritability with near-daily temper outbursts rather than distinct episodes separated by normal functioning. ADHD-related aggression arises from impulsivity but does not typically involve severe, episodic explosive reactions. Autism Spectrum Disorder may involve aggression tied to sensory overload or communication frustration rather than impulsive explosive outbursts. Substance/medication-induced aggression, trauma-related responses, and bipolar disorder must also be ruled out when symptoms are better accounted for by those conditions.

9.3.4 Comorbidities

Common comorbidities include ADHD, which contributes to impulsivity; ODD, which adds chronic irritability or argumentative behavior; anxiety disorders, which may heighten emotional reactivity; and depressive disorders, which may amplify irritability. Many children with IED show broader emotion regulation challenges that overlap with these conditions.

9.4 Contributing Factors

Biological factors include emotion regulation differences in neural systems related to impulse control. Children may also have heightened physiological reactivity to frustration. Environmental influences such as harsh or inconsistent parenting, exposure to violence, chaotic home environments, and early adversity increase risk.

9.5 How Do We Treat Intermittent Explosive Disorder?

Cognitive-Behavioral Therapy: Teaches children to identify emotional cues, develop coping strategies, and use skills in moments of escalation.

Parent Management Training: Helps caregivers structure predictable routines, reinforce regulation skills, and respond consistently during escalations.

Anger Management Programs: Skill-based interventions aimed at reducing intensity and frequency of explosive reactions.

Medication: Selective serotonin reuptake inhibitors or mood stabilizers may be used when outbursts are severe or when comorbidities are present.

The Overall Goal: The aim of treatment is to help children reduce the frequency and intensity of explosive episodes, improve emotional regulation skills, and strengthen functioning across home, school, and peer settings.

9.6 What Is the Prognosis?

With early intervention and consistent behavioral support, many children show reductions in frequency and intensity of episodes. Without treatment, explosive patterns may persist into adolescence, and functional impairment can worsen.

9.7 Prevalence & Statistics

IED is less common than ODD or Conduct Disorder. Estimates suggest it affects a small percentage of children and adolescents, with higher prevalence in clinical settings than in the general population. Symptoms often begin in late childhood.

9.8 Reflection

Think about how a child's environment and temperament interact.

1. How might inconsistent parenting practices contribute to explosive behavior?

9.9 Discussion

1. How do caregivers' responses influence escalation during outbursts?
2. What role should schools play in supporting children with IED?
3. How can clinicians differentiate between developmentally normal tantrums and pathological outbursts?
4. Why is it important to rule out medical causes of aggression?
5. How does chronic stress or trauma shape emotional reactivity in children?

9.10 Key Terms

Aggression: Sudden or intense verbal or physical behaviors aimed at others.

Impulsivity: Actions that occur quickly without planning or forethought.

Outburst: A brief, explosive episode of aggression disproportionate to the trigger.

Emotion regulation: Processes involved in managing emotional responses.

Functional impairment: Disruption in school, home, or social functioning resulting from symptoms.

Part III

Anxiety Disorders

Overview of Anxiety Disorders

Anxiety disorders are a group of conditions characterized by excessive fear, worry, or avoidance that is developmentally inappropriate and significantly interferes with daily functioning. While it is normal for children to experience fears or worries at certain stages of development, anxiety disorders occur when these feelings are persistent, intense, difficult to control, and disruptive to home, school, or social life. These disorders often arise from a combination of biological sensitivity, temperament traits, life experiences, and environmental stressors.

Anxiety in children can look very different from what adults expect. Instead of verbalizing fear, children may show physical symptoms, clinginess, irritability, restlessness, or avoidance of certain places or activities. Some children fear separation from caregivers, others fear specific situations or objects, and others worry broadly about many aspects of their lives. Without support, anxiety can limit a child's ability to explore, learn, and form healthy relationships. Many anxiety disorders begin in childhood, and early identification can greatly improve long-term outcomes.

Anxiety Disorders (DSM-5-TR):

- Separation Anxiety Disorder
- Selective Mutism
- Specific Phobia
- Social Anxiety Disorder (Social Phobia)
- Panic Disorder
- Panic Attack Specifier
- Agoraphobia
- Generalized Anxiety Disorder
- Substance/Medication-Induced Anxiety Disorder
- Anxiety Disorder Due to Another Medical Condition
- Other Specified Anxiety Disorder
- Unspecified Anxiety Disorder

10 Generalized Anxiety Disorder (GAD)

10.0.0.1 *Take a Moment: What Do You Think Generalized Anxiety Disorder Is?*

Think about what comes to mind when you hear this diagnosis. What worries do you think children experience? What assumptions might people get wrong?

10.1 What Is Generalized Anxiety Disorder?

Generalized Anxiety Disorder is characterized by excessive, persistent worry about several areas of life. The worry occurs more days than not for at least six months, is difficult to control, and causes significant distress or impairment.

10.2 What Does Generalized Anxiety Disorder Look Like in Children?

Children with GAD often appear tense, overly responsible, or preoccupied with possible negative outcomes. They may complain of physical symptoms or seem distracted by worry.

- **Excessive worry**

  - *Example: A child becomes consumed with "what if" thoughts about school, friendships, or family safety. For instance, they may repeatedly ask if their parents will be safe driving to work, check the weather for disasters, and worry about failing assignments despite high grades.*

- **Restlessness**

  - *Example: A child cannot settle during class or at bedtime because their mind cycles through possible problems, leading them to fidget, pace, or appear constantly keyed up.*

- **Sleep disturbance**

  - *Example: A child lies awake for long periods, replaying the day or anticipating future mistakes, resulting in morning fatigue and difficulty functioning in school.*

10.3 How Do We Diagnose It?

Diagnosis requires identifying excessive, difficult-to-control worry along with associated symptoms that impair functioning. These symptoms must not be due to substances, medical illness, or another mental disorder.

10.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Excessive anxiety and worry occurring more days than not for at least six months, about several events or activities.

Criterion B: The individual finds it difficult to control the worry.

Criterion C: Anxiety and worry are associated with at least one of the following symptoms in children:

- **Restlessness**

  - *Example: A child feels keyed up and unable to relax.*

- **Fatigue**

  - *Example: A child feels worn down from constant worry.*

- **Difficulty concentrating**

  - *Example: A child has trouble paying attention in class.*

- **Irritability**

  - *Example: A child snaps at siblings more easily than usual.*

- **Muscle tension**

  - *Example: A child reports tight shoulders or frequent stomachaches.*

- **Sleep disturbance**

  - *Example: A child lies awake thinking about the next day.*

Criterion D: The anxiety and worry cause clinically significant distress or impairment.

Criterion E: The disturbance is not due to a substance or medical condition.

Criterion F: The disturbance is not better explained by another mental disorder..

10.3.2 Assessment Tools Used in Diagnosis

- **SCARED:** A screening tool measuring anxiety symptoms across domains.
- **GAD-7:** A brief scale assessing the severity of generalized anxiety symptoms.
- **Behavioral observations:** Clinicians observe worry behaviors, tension, avoidance, and functional impact.

10.3.3 Differential Diagnosis

In considering differential diagnosis, clinicians must distinguish GAD from several related conditions. Social anxiety disorder involves worry that is primarily focused on social evaluation or performance situations. Specific phobia presents with fear limited to a distinct object or situation, unlike the broad worries seen in GAD. Separation anxiety disorder centers on distress related to separation from caregivers. Obsessive-compulsive disorder features anxiety driven by intrusive obsessions and the compulsive behaviors used to neutralize them. Depressive disorders may also resemble GAD, but cognitive symptoms are more closely tied to persistent low mood rather than pervasive worry.

10.3.4 Comorbidities

Children with GAD commonly experience additional conditions that can complicate diagnosis and treatment. Other anxiety disorders often occur alongside GAD, as children who worry broadly may also develop fears tied to social situations or separation. Depressive disorders may emerge when chronic worry leads to exhaustion, hopelessness, or negative thinking patterns. ADHD can also appear co-occurring, especially when anxiety-related inattention or restlessness resembles symptoms typically associated with attention difficulties.

10.4 Contributing Factors

Genetic and environmental influences interact to shape a child's vulnerability to developing GAD. Children with a family history of anxiety may inherit temperament traits such as behavioral inhibition, making them more sensitive to stress and more likely to perceive everyday situations as threatening. Environmental experiences, including exposure to stressful life events, high family conflict, or parenting styles that emphasize danger or focus heavily on mistakes, can further reinforce patterns of chronic worry and physiological tension, increasing the likelihood of persistent anxiety.

10.5 How Do We Treat Generalized Anxiety Disorder?

Treatment often includes psychotherapy, skills training, and sometimes medication.

Cognitive-Behavioral Therapy: Provides structured, skills-based strategies that help children notice and challenge unhelpful thinking patterns, gradually face avoided situations, and build confidence in handling daily stressors. It often includes worry exposure, problem-solving training, and cognitive restructuring.

Relaxation training: Teaches children physiological techniques such as diaphragmatic breathing, progressive muscle relaxation, and guided imagery to reduce physical tension and restore a sense of calm, especially during periods of heightened worry.

Parent-focused interventions: Helps caregivers respond in ways that reduce reinforcement of anxious behavior, such as limiting reassurance cycles, increasing supportive modeling of coping strategies, and promoting gradual independence in daily tasks.

Medication: SSRIs may be considered when symptoms cause significant impairment or when psychotherapy alone is not fully effective. Medication can help reduce chronic worry, physical tension, and irritability, allowing children to better benefit from therapeutic interventions.

The Overall Goal: The aim of treatment is to help children reduce worry, build confidence, manage physical symptoms, and function effectively across settings.

10.6 What Is the Prognosis?

GAD may persist into adolescence or adulthood, but early treatment improves outcomes. Many children learn coping strategies that significantly reduce symptoms.

10.7 Prevalence & Statistics

According to DSM-5-TR, Generalized Anxiety Disorder occurs in approximately 2%–3% of children and adolescents.

10.8 Reflection

Think about how persistent worry affects daily functioning.

1. In what ways might a child's anxiety be present even when it is not outwardly obvious?
2. How might physical complaints or subtle behaviors reflect underlying worry that a child is not able to verbalize?

10.9 Discussion

1. How does typical childhood worry differ from GAD-level worry?
2. How can schools support students with frequent anxiety?
3. What challenges do clinicians face distinguishing GAD from other anxiety disorders?
4. Why might children express anxiety through irritability rather than verbal worry?
5. How might family stress contribute to excessive worry?
6. How does avoidance maintain anxiety symptoms?
7. What cultural factors might influence how anxiety presents?

10.10 Key Terms

Cognitive-Behavioral Therapy: A treatment approach focused on identifying and changing unhelpful thoughts and behaviors.

Generalized Anxiety Disorder: A condition involving excessive, persistent worry about multiple areas of life.

GAD-7: A screening tool used to assess severity of generalized anxiety symptoms.

SCARED: A screening instrument used to measure anxiety symptoms in children.

Worry: Persistent thoughts about potential negative outcomes.

11 Panic Disorder

11.0.0.1 *Take a Moment: What Do You Think Panic Disorder Is?*

Have you ever seen someone have a panic attack and assumed it meant they were exaggerating or being dramatic? Do you think panic attacks always have a clear trigger? Can children even have panic attacks? Consider what ideas you already have about panic disorder and where misunderstandings may occur.

11.1 What Is Panic Disorder?

A panic attack is a sudden surge of intense fear or discomfort that peaks within minutes and includes a variety of physical and cognitive symptoms such as racing heart, shortness of breath, dizziness, or fear of losing control. Panic disorder is diagnosed when these unexpected panic attacks recur and lead to ongoing worry about additional attacks or changes in behavior to avoid situations where attacks might occur.

11.2 What Does Panic Disorder Look Like in Children?

Children may experience panic attacks but may struggle to describe the internal sensations. Instead, they may report physical symptoms such as stomachaches, dizziness, or difficulty breathing. They may become fearful of situations where prior attacks occurred or cling to caregivers to avoid being alone.

Intense physical fear symptoms

- *Example: A child suddenly clutches their chest and says they cannot breathe during a routine school activity.*

Cognitive symptoms such as fear of dying or losing control

- *Example: A child cries, saying they feel like something terrible is about to happen but cannot explain why.*

Avoidance behaviors

- *Example: A child refuses to go to school after having a panic attack there.*

11.3 How Do We Diagnose It?

Diagnosis requires identifying recurrent unexpected panic attacks and ongoing worry or behavior changes following the attacks. Clinicians evaluate symptom patterns, duration, triggers, and functional impact.

11.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Recurrent unexpected panic attacks involving an abrupt surge of intense fear or discomfort that peaks within minutes and includes at least four symptoms from the list (e.g., palpitations, sweating, trembling, shortness of breath).

Criterion B: At least one attack has been followed by 1 month or more of persistent worry about additional panic attacks or significant maladaptive behavior changes related to the attacks.

Criterion C: Symptoms are not due to a substance or another medical condition.

Criterion D: Symptoms are not better explained by another mental disorder.

11.3.2 Assessment Tools Used in Diagnosis

Severity Measure for Panic Disorder—Child Age 11–17: A structured tool used to assess the intensity, frequency, and functional impact of panic symptoms.

SCARED (Screen for Child Anxiety Related Emotional Disorders): Identifies anxiety symptoms in children, including panic-specific items.

Behavioral observations: Clinicians note avoidance, physical reactions during discussions of triggers, and child descriptions of internal sensations.

11.3.3 Differential Diagnosis

Generalized anxiety disorder involves persistent and broad worry rather than fear centered around panic episodes. Specific phobia produces panic only in response to a feared object or situation. Social anxiety disorder leads to panic in social or performance contexts. Post-traumatic stress disorder may include panic-like symptoms when trauma reminders occur. Substance or medication-induced anxiety disorders involve symptoms that arise from drug use or withdrawal. Certain medical conditions, such as cardiac or respiratory issues, can also produce physical symptoms that resemble panic attacks.

11.3.4 Comorbidities

Children with panic disorder commonly experience additional conditions that can complicate diagnosis and treatment. Agoraphobia may develop when children begin avoiding places where they fear panic symptoms might occur. Other anxiety disorders often overlap, such as generalized anxiety or social anxiety, creating a broader pattern of worry or avoidance. Depressive disorders may arise when persistent anxiety and functional impairment begin affecting mood and self-esteem.

11.4 Contributing Factors

Contributing factors include a combination of genetic, environmental, and temperamental influences. Children with a family history of anxiety disorders may have a higher likelihood of developing panic symptoms. Environmental stressors such as major life changes, parental modeling of anxious behaviors, or chronic stress can also contribute. Additionally, some children have temperamental traits that make them more sensitive to bodily sensations, increasing the chance that they may interpret these sensations as threatening and develop panic symptoms.

11.5 How Do We Treat Panic Disorder?

Treatment focuses on identifying and modifying fear responses, reducing avoidance, and teaching skills for managing panic symptoms.

Cognitive Behavioral Therapy (CBT): Helps children learn to interpret bodily sensations more accurately and gradually face avoided situations.

Exposure Therapy: Gradual exposure to feared internal sensations (interoceptive exposure) to reduce fear responses.

Psychoeducation: Children and caregivers learn how panic symptoms work and how to respond effectively.

Medication: SSRIs may be prescribed when symptoms are severe or unresponsive to therapy.

The Overall Goal: The overall goal is to reduce panic frequency and intensity, decrease avoidance behaviors, and help the child regain control and confidence in daily activities.

11.6 What Is the Prognosis?

With appropriate treatment, many children experience significant reductions in panic symptoms. Without intervention, symptoms may persist into adolescence or adulthood and increase risk for additional anxiety or depressive disorders.

11.7 Prevalence & Statistics

DSM data indicate panic disorder is less common in children than in adolescents and adults, with onset often occurring in late adolescence.

11.8 Reflection

Think about how panic disorder might present differently in children compared to adults.

1. What challenges might children face when trying to describe panic symptoms?
2. How might caregivers misinterpret early signs?

11.9 Discussion

1. What features distinguish panic disorder from other anxiety disorders?
2. Why might a child begin avoiding certain places after experiencing a panic attack?
3. How can caregivers support a child having panic symptoms?
4. What makes interoceptive exposure effective for treating panic disorder?
5. How might school staff recognize early warning signs?
6. Why is it important to rule out medical conditions?
7. How do comorbid disorders complicate diagnosis?

11.10 Key Terms

Agoraphobia: fear of situations where escape or help may be difficult.

Interoceptive exposure: exposure to feared internal bodily sensations.

Exposure therapy: therapeutic approach that gradually exposes individuals to feared sensations or situations to reduce avoidance and fear responses.

Panic attack: sudden surge of intense fear or discomfort with physical and cognitive symptoms.

Panic disorder: recurrent unexpected panic attacks followed by persistent worry or avoidance.

Somatic symptoms: physical sensations that accompany anxiety or panic.

12 Separation Anxiety Disorder

12.0.0.1 *Take a Moment: What Do You Think Separation Anxiety Disorder Is?*

Consider what comes to mind when you hear this diagnosis. Do you picture a child who cries at school drop-off? Do you assume they will "grow out of it"? What signs might be misunderstood as misbehavior rather than fear?

12.1 What Is Separation Anxiety Disorder?

Separation Anxiety Disorder is characterized by developmentally inappropriate and excessive fear or anxiety about being separated from major attachment figures. The distress is persistent, causes impairment, and exceeds what is expected for the child's developmental stage.

12.2 What Does Separation Anxiety Disorder Look Like in Children?

Children may show intense distress when anticipating or experiencing separation, worry about losing their caregivers, fear of harm befalling them, or refusal to be alone or attend school. Physical symptoms often accompany the distress.

Distress during separation:

- *Example: A child cries, clings, or becomes panicked when a caregiver leaves for work or drops them off at school.*

Worry about harm to caregivers:

- *Example: A child repeatedly asks if their parent might be in a car accident or get sick while away.*

Refusal to be alone or attend school:

- *Example: A child insists on sleeping next to a parent or refuses to enter their classroom without them.*

Physical complaints:

- *Example: A child reports stomachaches or headaches whenever separation is expected.*

12.3 How Do We Diagnose It?

Diagnosis requires identifying excessive fear or anxiety when separated from attachment figures, lasting at least 4 weeks in children, and causing significant distress or impairment. Symptoms must not be better explained by another disorder.

12.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Developmentally inappropriate and excessive fear or anxiety concerning separation from those to whom the individual is attached, as evidenced by at least three symptoms. This may include fears of getting lost, being kidnapped, or something terrible happening to caregivers, as well as nightmares involving separation.

Criterion B: The fear, anxiety, or avoidance is persistent, lasting at least 4 weeks in children and adolescents.

Criterion C: The disturbance causes clinically significant distress or impairment in social, academic, or other important areas of functioning.

Criterion D: The disturbance is not better explained by another mental disorder.

12.3.2 Assessment Tools Used in Diagnosis

Screen for Child Anxiety Related Disorders (SCARED): A child and parent-report screening tool assessing anxiety symptoms, including separation fears.

CSAS (Children's Separation Anxiety Scale): Measures the intensity and frequency of separation-related fears and behaviors.

Behavioral observations: Clinicians note clinginess, avoidance of separation situations, physical complaints, or school refusal patterns.

12.3.3 Differential Diagnosis

Separation Anxiety Disorder must be differentiated from several conditions. Generalized Anxiety Disorder involves broad worries not limited to separation. Social Anxiety Disorder centers on fear of evaluation rather than separation from caregivers. Specific Phobia features fear of a particular situation or object that does not generalize to separation. Panic Disorder involves unexpected panic attacks without the consistent separation-related trigger. Autism Spectrum Disorder may involve distress during changes in routine, but not specifically fear of separation. School refusal can occur in multiple disorders, so clinicians must determine whether separation fear is the driving cause.

12.3.4 Comorbidities

Common comorbidities include other anxiety disorders such as Generalized Anxiety Disorder, Social Anxiety Disorder, and Specific Phobia. Depressive disorders may co-occur when chronic worry and separation fear impact mood. Children with ADHD may appear more distressed during transitions, and those with Autism Spectrum Disorder may resist separation due to routine disruption, though the underlying cause differs.

12.4 Contributing Factors

Genetic and environmental influences can increase vulnerability. Children with a family history of anxiety may inherit temperament traits such as behavioral inhibition. Stressful life events, parental anxiety, inconsistent routines, and overprotective caregiving can heighten a child's separation fears. Prolonged absences, medical illness, or early attachment disruptions may also contribute.

12.5 How Do We Treat Separation Anxiety Disorder?

Treatment typically includes psychotherapy and skills-based interventions, sometimes with medication.

Cognitive-Behavioral Therapy: Helps children challenge fearful thoughts, practice gradual separations, and build coping skills.

Exposure-based strategies: Gradual practice with short separations increases confidence and reduces avoidance.

Parent training: Guides caregivers in responding supportively without reinforcing fear, reducing reassurance cycles, and promoting independence.

School collaboration: Coordination with teachers helps support gradual entry and reduces avoidance.

Medication: SSRIs may be used when symptoms are severe or unresponsive to psychotherapy.

The Overall Goal Therapy aims to reduce fear, increase independence, improve functioning, and help children tolerate separation with confidence.

12.6 What Is the Prognosis?

With treatment, most children improve significantly and gain the ability to tolerate separations. Untreated symptoms may continue into adolescence or contribute to later anxiety disorders. Early intervention is associated with better long-term outcomes.

12.7 Prevalence & Statistics

According to DSM-5-TR, Separation Anxiety Disorder occurs in approximately 4% of children.

12.8 Reflection

Think back to what you believed Separation Anxiety Disorder involved before reading. How might your understanding have changed?

1. How might a child's behavior during separation mask their underlying fear?
2. In what ways could family stress or routines unintentionally reinforce separation anxiety?

12.9 Discussion

1. How can clinicians distinguish normal clinginess from Separation Anxiety Disorder?
2. What role does school avoidance play in identifying this condition?
3. How do parenting styles impact the development or maintenance of separation fears?
4. Why might physical symptoms occur during anticipated separations?

12.10 Key Terms

Cognitive-Behavioral Therapy: A structured therapeutic approach that helps children change unhelpful thoughts and behaviors.

Exposure: A therapeutic strategy involving gradual practice with feared situations to reduce avoidance.

Separation Anxiety Disorder: A condition involving excessive fear or anxiety about being separated from attachment figures.

13 Selective Mutism

13.0.0.1 *Take a Moment: What Do You Think Selective Mutism Is?*

Consider what comes to mind when you hear the term selective mutism. Do you think the child is choosing not to speak? What assumptions might people make about shyness versus anxiety? How might the child experience their silence differently than adults assume?

13.1 What Is Selective Mutism?

Selective Mutism is an anxiety disorder characterized by a consistent failure to speak in specific social situations where speaking is expected, despite speaking normally in other settings. This silence interferes with functioning and is not due to a communication disorder, lack of language knowledge, or another medical condition.

13.2 What Does Selective Mutism Look Like in Children?

Children with Selective Mutism typically speak freely at home but become silent, frozen, or extremely anxious in settings such as school, community activities, or around unfamiliar people. Their silence is driven by fear, not defiance.

- **Consistent failure to speak in certain settings:**

  - *Example: A child who talks nonstop at home becomes completely silent at school, even when asked simple questions.*

- **Interference with education or social communication:**

  - *Example: A child cannot ask to use the restroom or participate in class, leading to academic and social difficulties.*

- **Behavioral signs of anxiety:**

  - *Example: A child avoids eye contact, freezes, clings to caregivers, or appears expressionless when expected to speak.*

13.3 How Do We Diagnose It?

Diagnosis involves identifying a predictable pattern of speech failure in specific settings and ruling out other causes such as communication disorders or lack of language proficiency. The silence must be persistent, impair functioning, and not be better explained by other conditions.

13.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Consistent failure to speak in specific social situations where speaking is expected, despite speaking in other situations.

Criterion B: The disturbance interferes with educational or occupational achievement or with social communication.

Criterion C: Duration is at least 1 month (not limited to the first month of school).

Criterion D: Failure to speak is not attributable to lack of knowledge of, or comfort with, the spoken language.

Criterion E: The disturbance is not better explained by a communication disorder and does not occur exclusively during Autism Spectrum Disorder, Schizophrenia, or another psychotic disorder.

13.3.2 Assessment Tools Used in Diagnosis

Assessment includes behavioral observations and structured tools that measure anxiety and communication across settings.

- **Selective Mutism Questionnaire (SMQ):** Assesses frequency of speech and anxiety across home, school, and social situations.
- **Behavioral observations:** Clinicians observe the child in multiple settings to note patterns of silence, anxiety behaviors, and communication attempts.
- **Speech-language evaluation:** Rules out communication disorders and assesses language proficiency.

13.3.3 Differential Diagnosis

Selective Mutism must be distinguished from other conditions. Social Anxiety Disorder may present with fear of social evaluation, but Selective Mutism specifically involves a persistent inability to speak. Communication disorders can cause speech difficulties, but they do not involve situation-specific silence. Autism Spectrum Disorder includes broader social communication deficits not limited to speech inhibition. Psychotic disorders or mutism related to trauma should be considered if symptoms extend beyond selective speaking patterns.

13.3.4 Comorbidities

Selective Mutism frequently co-occurs with Social Anxiety Disorder, as many affected children exhibit intense fear of social evaluation. Other anxiety disorders, such as Specific Phobia or Separation Anxiety Disorder, may be present. Additionally, children may show traits of communication difficulties or mild language delays, though these do not fully explain the mutism.

13.4 Contributing Factors

Selective Mutism arises from a combination of genetic, behavioral, and environmental factors. Children with behavioral inhibition or a family history of anxiety are at higher risk. Environmental influences such as early negative social experiences, high expectations for verbal performance, or multilingual environments may increase stress around speaking.

13.5 How Do We Treat Selective Mutism?

Treatment focuses on reducing anxiety and increasing verbal communication across settings.

Behavioral Therapy: Uses gradual exposure, shaping, and positive reinforcement to help children speak in increasingly challenging settings.

Cognitive-Behavioral Strategies: Teach children coping strategies for managing anxiety, such as relaxation or restructuring anxious thoughts.

Parent and Teacher Training: Helps adults provide consistent support, reduce pressure to speak, and structure situations to encourage communication.

Speech-Language Support: Assists with communication skills when language delays or articulation issues contribute to anxiety.

Medication: SSRIs may be used when anxiety is severe or resistant to behavioral treatments.

The Overall Goal The aim is to help children reduce anxiety, gain confidence, and generalize speech across settings so they can communicate effectively.

13.6 What Is the Prognosis?

With early intervention, many children show significant improvement and may overcome selective mutism entirely. Without treatment, symptoms can persist into adolescence and interfere with academic, social, and emotional development.

13.7 Prevalence & Statistics

Selective Mutism is relatively rare, occurring in approximately 0.03%–1% of children, according to DSM-5-TR.

13.8 Reflection

Think back to your initial assumptions about selective mutism.

1. How might a child's silence be misunderstood by adults or peers?
2. What internal experiences might drive their inability to speak?

13.9 Discussion

1. How does selective mutism differ from shyness?
2. What challenges do teachers face when supporting a child with selective mutism?
3. How can school environments unintentionally reinforce silence?
4. What role should parents play in treatment?
5. Why is early intervention particularly important for this disorder?

13.10 Key Terms

Behavioral Inhibition: A temperamental tendency toward fear and withdrawal in unfamiliar situations.

Cognitive-Behavioral Therapy: A structured treatment approach aimed at reducing anxiety and modifying thought patterns.

Selective Mutism: An anxiety disorder characterized by consistent failure to speak in certain settings despite speaking in others.

Selective Mutism Questionnaire (SMQ): A tool used to assess communication patterns and anxiety in children with selective mutism.

Speech-Language Evaluation: An assessment used to rule out communication disorders contributing to mutism.

Part IV

Obsessive-Compulsive and Related Disorders

Obsessive-Compulsive and Related Disorders

Obsessive-compulsive and related disorders are conditions characterized by patterns of intrusive thoughts, repetitive behaviors, or preoccupations that are difficult for individuals to control. These symptoms can become time-consuming, distressing, and impairing, especially when they interfere with daily routines, schoolwork, social interactions, or family life. In children, these disorders may arise gradually or suddenly, and symptoms often fluctuate in severity over time.

Obsessions are unwanted, intrusive thoughts, urges, or images that cause anxiety or discomfort. Compulsions are repetitive behaviors or mental acts that children feel driven to perform in order to reduce anxiety or prevent something bad from happening. Other disorders in this category involve body-focused behaviors—such as pulling hair or picking skin—or intense, distressing preoccupations with perceived flaws in appearance. Children may struggle to explain why they engage in these behaviors, and caregivers may initially interpret them as habits, stubbornness, or attention-seeking, rather than signs of underlying distress.

Early recognition is essential because these disorders can significantly impact self-esteem, academic functioning, and family dynamics. Many of these conditions respond well to behavioral therapies, and identifying symptoms early helps prevent their progression into more entrenched patterns.

Obsessive-Compulsive and Related Disorders (DSM-5-TR):

- Obsessive-Compulsive Disorder (OCD)
- Body Dysmorphic Disorder
- Hoarding Disorder
- Trichotillomania (Hair-Pulling Disorder)
- Excoriation (Skin-Picking) Disorder
- Substance/Medication-Induced Obsessive-Compulsive and Related Disorder
- Obsessive-Compulsive and Related Disorder Due to Another Medical Condition
- Other Specified Obsessive-Compulsive and Related Disorder
- Unspecified Obsessive-Compulsive and Related Disorder

14 Obsessive Compulsive Disorder (OCD)

14.0.0.1 *Take a Moment: What Do You Think Obsessive-Compulsive Disorder Is?*

Think for a moment about what comes to mind when you hear "OCD." Do you picture a child who loves neatness? Or someone who washes their hands a lot? What might people misunderstand about the difference between preferences and true obsessions and compulsions? How might these symptoms interfere with a child's daily life in ways others cannot see?

14.1 What Is Obsessive-Compulsive Disorder?

Obsessive-Compulsive Disorder (OCD) is characterized by the presence of obsessions, compulsions, or both. These symptoms are time-consuming, cause distress, and interfere with functioning. Obsessions are intrusive, unwanted thoughts, urges, or images, while compulsions are repetitive behaviors or mental acts performed to reduce anxiety or prevent a feared outcome.

14.2 What Does Obsessive-Compulsive Disorder Look Like in Children?

Children with OCD may appear distracted, overwhelmed, or frustrated by intrusive thoughts they cannot control. They often develop rituals or repetitive behaviors to manage anxiety, though they may not always recognize these behaviors as excessive.

- **Obsessions:**

  - *Example: A child repeatedly worries that something terrible will happen to their parents unless they say a specific phrase exactly right.*

- **Compulsions:**

  - *Example: A child feels compelled to tap a doorway three times before entering to "neutralize" a bad thought.*

- **Avoidance behaviors:**

– Example: A child avoids touching classroom materials due to fear of contamination.

14.3 How Do We Diagnose It?

Diagnosis requires identifying the presence of obsessions, compulsions, or both, that are distressing, time-consuming, or impairing. Clinicians look for patterns of intrusive thoughts and repetitive behaviors that the child feels driven to perform.

14.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: The presence of obsessions, compulsions, or both:

- Obsessions: Intrusive and unwanted thoughts, urges, or images causing distress, and attempts to ignore or neutralize them.
- Compulsions: Repetitive behaviors or mental acts the child feels driven to perform to reduce anxiety or prevent a feared event.

Criterion B: Obsessions or compulsions are time-consuming or cause distress or impairment.

Criterion C: Symptoms are not due to substance use or a medical condition.

Criterion D: Symptoms are not better explained by another mental disorder.

14.3.2 Specifiers

Specifiers help describe the child's insight and whether symptoms are related to tics.

- **With good or fair insight**

  - *Example: The child recognizes that their fears are probably not true but feels unable to stop compulsions.*

- **With poor insight**

  - *Example: The child believes their intrusive thoughts are likely true and rituals are necessary.*

- **With absent insight/delusional beliefs**

  - *Example: The child is convinced that danger will occur unless compulsions are completed.*

- **Tic-related**

  - *Example: A child with a history of motor tics also exhibits checking rituals.*

14.3.3 Assessment Tools Used in Diagnosis

- **CY-BOCS (Children's Yale-Brown Obsessive Compulsive Scale):** A clinician-rated scale assessing severity of obsessions and compulsions.
- **OCI-CV (Obsessive-Compulsive Inventory – Child Version):** A child-report measure capturing common OCD symptom dimensions.
- **Behavioral observations:** Clinicians look for rituals, avoidance behaviors, hesitations, reassurance seeking, or distress during tasks.

14.3.4 Differential Diagnosis

OCD must be differentiated from generalized anxiety disorder, where worries are more generalized rather than tied to intrusive thoughts; specific phobias, which center on one primary feared object; eating disorders, in which rituals relate to weight or food; and autism spectrum disorder, where repetitive behaviors are driven by rigidity rather than anxiety. It should also be differentiated from psychotic disorders, in which intrusive thoughts may be better understood as delusions rather than obsessions.

14.3.5 Comorbidities

Comorbidities commonly include anxiety disorders, depressive disorders, and tic disorders. Children with OCD may also present with ADHD, which can complicate the child's capacity to disengage from obsessions or compulsions. Sleep disturbance and irritability are also frequently observed.

14.4 Contributing Factors

OCD arises through a combination of genetic vulnerability, neurological differences in cortico-striatal circuits, temperament factors such as behavioral inhibition, and environmental stressors. Family accommodation—such as participating in rituals or providing excessive reassurance—can reinforce symptoms. Stressful life events may trigger or worsen symptom onset.

14.5 How Do We Treat Obsessive-Compulsive Disorder?

Treatment focuses on helping the child resist compulsions and tolerate distress from intrusive thoughts. OCD can be difficult to treat with normal Cogntive Behavior Therapy alone. It is typically paired with an exposure based method.

CBT with Exposure and Response Prevention (ERP): Teaches children to gradually face feared situations while reducing compulsive responses.

Family-based interventions: Teach caregivers to reduce accommodation and support ERP practice at home.

Medication: SSRIs may be used when symptoms are moderate to severe or when psychotherapy alone is not sufficient.

The Overall Goal: The aim of treatment is to help the child reduce the power of obsessions, decrease reliance on compulsions, and function more comfortably at home, school, and socially.

14.6 What Is the Prognosis?

With early and consistent treatment, many children experience symptom reduction and improved functioning. Without treatment, symptoms can persist into adolescence and adulthood. Insight level and family involvement play important roles in outcomes.

14.7 Prevalence & Statistics

According to DSM-5-TR, OCD occurs in approximately 1%–2% of children and adolescents. Onset typically appears in late childhood to early adolescence.

14.8 Reflection

Think back to your initial assumptions about OCD.

1. How might a child's compulsions be misunderstood as misbehavior or stubbornness?
2. What signs of distress might be easy to miss if a child keeps rituals hidden?

14.9 Discussion

1. Why might children feel embarrassed to share their obsessions?
2. How can family accommodation impact treatment progress?
3. What challenges arise when OCD co-occurs with tic disorders?
4. How can schools support students with OCD rituals during the day?
5. Why is insight important for understanding OCD symptoms?
6. How might cultural or familial beliefs affect the interpretation of obsessions?
7. What makes ERP uniquely effective for OCD compared to other therapies?

14.10 Key Terms

Compulsions: Repetitive behaviors or mental acts performed to reduce anxiety or prevent a feared outcome.

Exposure and Response Prevention (ERP): A CBT technique where the child confronts feared stimuli while resisting compulsions.

Obsessions: Intrusive, unwanted thoughts, urges, or images that cause distress.

OCD (Obsessive-Compulsive Disorder): A disorder involving obsessions, compulsions, or both that are distressing or impairing.

Reassurance Seeking: Repeatedly asking others for comfort or confirmation to reduce anxiety.

15 Body Dysmorphic Disorder

15.0.0.1 *Take a Moment: What Do You Think Body Dysmorphic Disorder Is?*

Think for a moment about what comes to mind when you hear body dysmorphia. Do you imagine extreme vanity, or a child simply not liking their appearance? What misconceptions might people hold about how serious or impairing this disorder really is?

15.1 What Is Body Dysmorphic Disorder?

Body Dysmorphic Disorder (BDD) involves a preoccupation with one or more perceived flaws in physical appearance that are either unnoticeable or appear minor to others. This preoccupation is time-consuming, distressing, and leads to repetitive behaviors or mental acts aimed at checking, hiding, or fixing the perceived flaw.

15.2 What Does Body Dysmorphic Disorder Look Like in Children?

Children with BDD may become overly focused on a specific body part, convinced something is wrong even when reassured otherwise. They may avoid social situations, seek excessive reassurance, or engage in rituals to hide or fix what they believe is a defect.

Appearance preoccupation: Children repeatedly think about a specific feature they believe is flawed.

- *Example: A child spends hours worrying that their nose is "crooked," checking mirrors to see whether others can tell.*

Repetitive behaviors: Attempts to hide, fix, or monitor the perceived flaw.

- *Example: A child repeatedly applies makeup, changes hairstyles, or adjusts clothing to hide the area of concern.*

Avoidance: Social withdrawal due to fear of negative evaluation.

- *Example: A child avoids school picture day or birthday parties because they believe others will notice their "defect."*

15.3 How Do We Diagnose It?

Diagnosis requires identifying persistent appearance-related preoccupations and repetitive behaviors that cause distress or impair functioning. These symptoms must not be better explained by concerns related to weight or body fat as seen in eating disorders.

15.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Preoccupation with one or more perceived defects or flaws in physical appearance that are not observable or appear slight to others.

Criterion B: At some point, the individual has performed repetitive behaviors or mental acts in response to appearance concerns.

Criterion C: The preoccupation causes clinically significant distress or impairment.

Criterion D: The appearance preoccupation is not better explained by concerns with body fat or weight in an eating disorder.

Common Features:

- **Mirror checking:** Children frequently look in mirrors or reflective surfaces.
- **Camouflaging:** Using clothes, makeup, hairstyles, or positioning to hide perceived flaws.
- **Reassurance seeking:** Asking others repeatedly if they look "okay."
- **Mental comparisons:** Comparing themselves to peers constantly.

15.3.2 Specifiers

BDD includes an insight specifier describing how convinced the individual is about their beliefs. It also includes a muscle dysmorphia specifier, which applies when the individual is preoccupied with the idea that their body is too small or insufficiently muscular.

- **Muscle dysmorphia**

    - *Example: A child becomes convinced their arms or legs are "too small," begins excessive exercising, avoids situations where their body might be seen, or compares their physique to peers obsessively.*

- **With good or fair insight**

    - *Example: A child acknowledges that others say the flaw is minor but still feels distressed.*

- **With poor insight**

– *Example: A child is mostly convinced the flaw is real despite reassurance.*

- **With absent insight/delusional beliefs**

    – *Example: A child is fully convinced the perceived flaw is severe and obvious to others.**

15.3.3 Assessment Tools Used in Diagnosis

Body Dysmorphic Disorder Questionnaire (BDDQ): A brief screening tool assessing preoccupation with appearance and related behaviors.

BDD-YBOCS (Yale-Brown Obsessive Compulsive Scale for BDD): Measures severity of preoccupations and repetitive behaviors.

Clinical interviews and observations: Clinicians assess distress, avoidance, rituals, and whether concerns exceed typical developmental self-consciousness.

15.3.4 Differential Diagnosis

BDD must be distinguished from several related disorders. In social anxiety disorder, fear centers on social judgment rather than a perceived physical flaw. Eating disorders focus specifically on weight and body fat, unlike the broader appearance concerns in BDD. Obsessive-compulsive disorder includes intrusive thoughts and compulsions but not appearance-specific preoccupation. Major depressive disorder may involve negative self-image without repetitive appearance-checking behaviors. Normal developmental concerns, such as puberty-related self-consciousness, do not rise to the level of persistent distress or impairment required for BDD.

15.3.5 Comorbidities

Children with BDD often experience comorbid anxiety disorders, especially social anxiety due to fear of being evaluated. Depressive disorders are common as chronic distress leads to hopelessness and withdrawal. Obsessive-compulsive disorder frequently co-occurs due to overlapping repetitive behaviors. Some children may also experience suicidal ideation related to intense dysphoria about appearance.

15.4 Contributing Factors

Genetic predispositions, temperament traits like heightened self-focus or sensitivity to evaluation, and environmental influences such as bullying, teasing, or cultural beauty pressures all contribute to BDD risk. Children who receive negative feedback about appearance or experience perfectionism within the family may be more likely to develop the disorder. In more recent years, social media and the use of unrealistic filters has also increased children's awareness of their appearance and feeling they do not "measuring up."

15.5 How Do We Treat Body Dysmorphic Disorder?

Treatment combines psychotherapy, skills training, and sometimes medication to address distorted perceptions and compulsive behaviors.

Cognitive-Behavioral Therapy (CBT): Helps children challenge distorted thoughts, reduce mirror-checking, and gradually face avoided situations.

Exposure and Response Prevention: Supports children in reducing rituals such as camouflaging or reassurance seeking.

Family involvement: Guides caregivers to reduce accommodation, provide supportive modeling, and avoid reinforcing appearance-focused worries.

Medication: SSRIs may be used to reduce obsessive thoughts and compulsive behaviors when symptoms are severe.

The Overall Goal: The aim is to help children develop a healthier, more balanced view of their appearance, reduce compulsive behaviors, improve daily functioning, and increase confidence in social interactions.

15.6 What Is the Prognosis?

BDD often follows a chronic course without treatment, but early interventions significantly improve outcomes. Many children show reduced preoccupation and ritualistic behaviors and better social and academic functioning with appropriate therapy.

15.7 Prevalence & Statistics

According to DSM-5-TR, Body Dysmorphic Disorder occurs in approximately 2% of the population, with onset often emerging in adolescence. Children with a family history of obsessive-compulsive or related disorders may be at elevated risk.

15.8 Reflection

Think about how appearance concerns show up in children. When does normal self-consciousness become something more serious?

1. What signs might indicate that a child's preoccupation goes beyond typical developmental concerns?

15.9 Discussion

1. How can parents differentiate typical self-consciousness from BDD-level concern?
2. In what ways might peers or social environments reinforce appearance fixation?
3. Why might children be reluctant to share their appearance concerns with adults?
4. How does insight level influence treatment planning?
5. What cultural factors influence how children interpret or value physical appearance?

15.10 Key Terms

Body Dysmorphic Disorder: A condition involving preoccupation with perceived appearance flaws and repetitive behaviors.

Cognitive-Behavioral Therapy: A treatment aimed at identifying and changing unhelpful thoughts and behaviors.

Exposure and Response Prevention: A therapeutic approach reducing avoidance and compulsive rituals.

Insight: The degree to which an individual recognizes that their beliefs about appearance may not be accurate.

Part V

Trauma- and Stressor-Related Disorders

Trauma- and Stressor-Related Disorders

Trauma- and stressor-related disorders are a group of conditions triggered by exposure to a stressful or traumatic event. These disorders involve characteristic patterns of emotional, behavioral, and physiological responses that emerge after experiences such as loss, violence, neglect, accidents, medical crises, or major life changes. While children naturally experience stress throughout development, trauma- and stressor-related disorders reflect reactions that are intense, persistent, and disruptive to daily functioning.

Children may show their distress in many different ways. Some react with fear, withdrawal, or nightmares; others show irritability, behavioral outbursts, regression, or difficulty trusting others. Younger children may reenact aspects of the trauma in play, while adolescents may display avoidance, emotional numbing, or risk-taking behaviors. Because children's coping skills and understanding of events differ from those of adults, their symptoms can be easily misunderstood or overlooked.

These disorders highlight the profound impact that environment and experience can have on development. Early identification and trauma-informed care are essential, as supportive relationships, predictable routines, and evidence-based therapies can reduce symptoms and promote recovery.

Trauma- and Stressor-Related Disorders (DSM-5-TR):

- Reactive Attachment Disorder

- Disinhibited Social Engagement Disorder

- Posttraumatic Stress Disorder (for individuals older than 6 years)

- Posttraumatic Stress Disorder in Children 6 Years and Younger

- Acute Stress Disorder

- Adjustment Disorders

    - With depressed mood
    - With anxiety
    - With mixed anxiety and depressed mood
    - With disturbance of conduct
    - With mixed disturbance of emotions and conduct
    - Unspecified

- Prolonged Grief Disorder

- Other Specified Trauma- and Stressor-Related Disorder

- Unspecified Trauma- and Stressor-Related Disorder

16 Post-Traumatic Stress Disorder (PTSD)

16.0.0.1 *Take a Moment: What Do You Think Post-Traumatic Stress Disorder Is?*

Consider what comes to mind when you think about trauma in children. Do you picture sudden, catastrophic events, or can trauma stem from chronic stress? What symptoms do you expect children to show, and what do people often misunderstand about how PTSD presents in younger versus older children?

16.1 What Is Post-Traumatic Stress Disorder?

Post-Traumatic Stress Disorder (PTSD) develops after exposure to actual or threatened death, serious injury, or sexual violence. It involves intrusive memories, avoidance, negative changes in thoughts and mood, and physiological arousal changes that persist for more than one month and impair functioning. Children's symptoms may appear more behavioral, sensory, or regressive compared to adults.

16.2 What Does PTSD Look Like in Children?

Children may relive trauma through play, nightmares, or intrusive memories they cannot articulate. They may avoid reminders of the event, withdraw socially, exhibit irritability or aggression, or show hypervigilance. Younger children often display regressive behaviors, new fears, or distress without clear verbal explanation.

Intrusive memories *Example: A child repeatedly reenacts aspects of the trauma with toys or draws the same frightening scene.*

Avoidance *Example: A child refuses to go near certain places, people, or activities that remind them of the event.*

Negative changes in mood or thinking *Example: A child suddenly believes the world is unsafe or blames themselves for the traumatic event.*

Arousal and reactivity changes *Example: A child startles easily, has angry outbursts, or has difficulty sleeping due to constant alertness.*

16.3 How Do We Diagnose It?

Diagnosis involves identifying exposure to trauma and a pattern of symptoms across intrusion, avoidance, negative mood/cognition, and arousal domains that last longer than one month and cause impairment. The DSM-5-TR provides separate criteria for children older than 6 years and children 6 years and younger.

16.3.1 DSM-5-TR Diagnostic Criteria: Individuals Older Than 6 Years

Criterion A: Exposure to actual or threatened death, serious injury, or sexual violence through direct experience, witnessing traumatic events as they occur to others, learning that such events happened to a close family member or friend, or repeated exposure to aversive details of traumatic events. This criterion emphasizes that the child must have encountered a genuinely threatening event that overwhelms their sense of safety and exceeds their capacity to cope.

Criterion B: Intrusion symptoms such as intrusive memories, unwanted thoughts about the trauma, distressing dreams, dissociative reactions where the child may feel as though the trauma is recurring, or strong emotional or physiological reactions to reminders of the event. Intrusion symptoms represent the child's difficulty integrating the traumatic experience, leading the mind and body to re-experience aspects of the event involuntarily.

Criterion C: Avoidance of memories, thoughts, feelings, or external reminders of the trauma. This includes efforts to stay away from places, people, conversations, or situations that evoke distressing recollections. Avoidance serves as a coping mechanism intended to reduce emotional pain, but often contributes to functional impairment and prevents recovery.

Criterion D: Negative alterations in cognitions and mood including persistent negative beliefs about oneself or the world, distorted blame of self or others, chronic negative emotional states, diminished interest in activities, social withdrawal, difficulty experiencing positive emotions, or memory gaps related to aspects of the trauma. These changes reflect the trauma's impact on the child's developing sense of identity, safety, trust, and emotional stability.

Criterion E: Arousal and reactivity changes such as heightened irritability, impulsive behavior, hypervigilance, exaggerated startle responses, difficulty concentrating, and persistent sleep disruption. These symptoms show the child's nervous system remaining in a prolonged state of alertness, as though danger is ongoing even when the environment is safe.

Criterion F: Duration of symptoms longer than one month.

Criterion G: Distress or impairment in functioning.

Criterion H: Not due to substances or medical conditions.

16.3.2 DSM-5-TR Diagnostic Criteria: Children 6 Years and Younger

Children under 6 have different diagnostic criteria because their cognitive, emotional, and language abilities are still developing, which affects how trauma symptoms appear and how they can express them. Younger children often show distress through behavior, play, or regression rather than through verbal descriptions of intrusive thoughts or negative beliefs. For this reason, the DSM-5-TR adjusts the criteria to reflect developmentally appropriate ways that trauma symptoms manifest in early childhood.

Criterion A: Exposure to actual or threatened death, serious injury, or sexual violence. This criterion is the same as for children 6 and older; however, younger children may show their awareness of the event through behavioral or emotional shifts rather than detailed verbal descriptions.

Criterion B: Intrusion symptoms such as intrusive memories, dreams, dissociative reactions (including play reenactments), or intense reactions to reminders. Intrusion symptoms occur in both age groups, but younger children often express them through trauma-themed play, nonspecific nightmares, or sudden emotional distress instead of verbal reports of intrusive memories.

Criterion C: Avoidance and **Negative alterations in cognitions and mood** are combined into one criterion for this age group. This differs from older children, who must meet two separate criteria—one for avoidance and one for negative mood/cognitions. Younger children may not yet have the developmental capacity to articulate negative beliefs, guilt, or blame, so the DSM combines these symptoms to reflect how they more commonly present. Child still actively avoids certain activities (avoidance) or becomes so socially withdrawn (negative alterations).

Criterion D: Arousal and reactivity changes such as irritability, tantrums, hypervigilance, startle response, or sleep problems. This criterion appears in both age groups. However, younger children typically show arousal changes through behavioral dysregulation (tantrums, sudden outbursts, clinginess), whereas older children may describe difficulty concentrating, irritability, or feeling "on guard."

Criterion E: Duration more than one month. This is identical across age groups.

Criterion F: Distress or impairment. Also the same across age groups, though impairment in younger children often emerges as regression, increased separation distress, or disruptions in play and social engagement.

Criterion G: Not due to substances or medical conditions. This requirement is the same for all ages.

It should also be noted that if a child is repeatedly exposed to traumatic events, developmental regression (ex. loss of language) may be observed.

16.3.3 Specifiers

Symptoms may include additional dissociative features.

- **With dissociative symptoms** This specifier is used when the child experiences episodes of dissociation, which may include depersonalization or derealization. Depersonalization refers to feeling detached from oneself, as if observing one's thoughts or body from the outside. Derealization refers to feeling that the external world is strange, unreal, or dreamlike. *Example: A child experiences depersonalization during reminders of trauma.*

- **With delayed expression** Diagnostic criteria is not met until six months after the traumatic event.

Example: 12-Year-Old With PTSD

A 12-year-old who survived a serious car accident begins experiencing intrusive memories that interrupt schoolwork, especially when she hears screeching tires or sudden loud noises in the hallway. She avoids riding in cars and refuses to take the route where the accident occurred. Her parents notice that she has become withdrawn from friends, insisting that "bad things happen out of nowhere," and she now blames herself for distracting her mother right before the crash. She startles easily, has trouble falling asleep due to fear of another accident, and snaps at her siblings over small frustrations. Her grades begin to drop as she struggles to concentrate, constantly scanning her environment for signs of danger.

Example Paragraph: 6-Year-Old With PTSD

A 6-year-old who witnessed a violent incident in his neighborhood begins reenacting the scene with action figures during play, repeating the same sequence with intensity that wasn't present before. He becomes clingy with caregivers and refuses to play outside, saying the world is "scary," though he cannot clearly describe why. He startles at loud sounds, has frequent tantrums at bedtime, and wakes up crying from nightmares he cannot explain. Teachers report that he seems zoned out during class activities, avoids games he once enjoyed, and reacts aggressively when another child startles him. His behavior appears regressive, with new fears and emotional outbursts that were not present before the trauma.

16.3.4 Assessment Tools Used in Diagnosis

Assessment for PTSD involves gathering information about the child's trauma exposure, current symptoms, and functional impairment across settings. Clinicians use structured measures, interviews, and behavioral observations to understand how the traumatic event affects the child's thoughts, emotions, and behavior. Because symptoms can look different depending on age, developmental level, and communication abilities, assessment must be comprehensive and sensitive to subtle or behavioral expressions of trauma.

UCLA PTSD Reaction Index (PTSD-RI): A structured measure assessing trauma exposure and PTSD symptoms in children.

Child PTSD Symptom Scale (CPSS): Evaluates symptom severity and functional impairment.

Clinical interviews & caregiver reports: Provide behavioral observations, developmental context, and cross-setting information.

Behavioral observations: Clinicians may note avoidance behaviors, hypervigilance, reenactment play, or emotional numbing.

16.3.5 Differential Diagnosis

PTSD must be differentiated from Acute Stress Disorder, which lasts less than one month. Adjustment Disorders may appear similar but do not involve the full PTSD symptom clusters or traumatic event criteria. Anxiety disorders (such as separation anxiety or specific phobia) lack the trauma-based intrusions and avoidance patterns characteristic of PTSD. OCD may feature intrusive thoughts, but these are not tied to a traumatic event. Depressive disorders may include withdrawal and negative beliefs but lack trauma-specific symptoms. ADHD may resemble hyperarousal but does not involve trauma-linked triggers.

16.3.6 Comorbidities

PTSD often co-occurs with depressive disorders, other anxiety disorders, and behavior problems. Children may also present with ADHD-like symptoms due to hyperarousal. In some cases, trauma exposure is associated with dissociative symptoms or externalizing behaviors, making assessment across settings critical.

16.4 Contributing Factors

PTSD arises from an interaction of trauma exposure, developmental stage, environment, and individual vulnerability. A child's proximity to the traumatic event, severity of threat, and availability of supportive caregiving significantly influence outcomes. Genetic predispositions toward heightened stress reactivity can increase vulnerability, while chronic stress, family conflict, or repeated traumatic exposures raise risk.

16.5 How Do We Treat PTSD?

Treatment typically involves trauma-focused therapy, caregiver involvement, and sometimes medication.

Trauma-Focused Cognitive Behavioral Therapy (TF-CBT): Helps children process traumatic memories, reduce distress, and learn coping skills. May include gradual exposure and narrative development.

Play Therapy: Supports younger children in expressing traumatic experiences symbolically when verbal processing is limited.

Parent-Child Interaction Strategies: Teach caregivers how to support emotional regulation, reduce avoidance, and reinforce coping behaviors.

Medication: SSRIs may be considered when symptoms are severe, though therapy is first-line.

The Overall Goal The overall goal of treatment is to reduce traumatic distress, restore a sense of safety, support emotional regulation, and improve functioning across home, school, and community settings.

16.6 What Is the Prognosis?

PTSD is associated with impairments in social relationships, work/school, and physical functioning if left untreated. With timely intervention, many children experience significant improvement. Chronic or repeated trauma may lead to longer recovery times or continued symptoms. Strong caregiver support improves prognosis, while continued exposure to stressors can worsen outcomes.

16.7 Prevalence & Statistics

DSM-5-TR notes that PTSD prevalence among children varies by trauma type, with higher rates seen in cases involving interpersonal violence. Approximately a minority of children exposed to trauma develop PTSD, though risk is elevated in chronic or repeated traumatic contexts. Prevalence for adolescents is between 5-8%.

16.8 Reflection

Think back to your initial assumptions about PTSD. How might children's symptoms look different depending on their age and ability to verbalize distress?

1. How might younger children express trauma differently than older children?
2. What factors influence whether a child develops PTSD after trauma?

16.9 Discussion

1. What challenges arise when diagnosing PTSD in very young children?
2. How does trauma-related play differ from typical imaginative play?
3. In what ways can schools identify trauma-related difficulties early?
4. How can caregivers support recovery after a traumatic experience?
5. How do repeated traumas affect long-term outcomes for children?

16.10 Key Terms

Acute Stress Disorder: A trauma-related condition lasting less than one month.

Avoidance: Efforts to steer clear of reminders of the traumatic event.

Derealization: A feeling that the external world seems strange, unreal, or dreamlike.

Dissociation: A disruption in awareness or sense of self during or after trauma.

Hyperarousal: Heightened physiological alertness following trauma.

Intrusion: Unwanted memories, flashbacks, or dreams of the trauma.

Post-Traumatic Stress Disorder: A condition following exposure to traumatic events involving intrusions, avoidance, negative mood changes, and arousal symptoms.

Trauma: Exposure to actual or threatened death, serious injury, or sexual violence.

17 Reactive Attachment Disorder

17.0.0.1 *Take a Moment: What Do You Think Reactive Attachment Disorder Is?*

What comes to mind when you hear the term reactive attachment? What assumptions do people often make about children who struggle to form bonds? What do you think causes attachment disruptions?

17.1 What Is Reactive Attachment Disorder?

Reactive Attachment Disorder (RAD) is a trauma- and stressor-related disorder characterized by a consistent pattern of emotionally withdrawn behavior toward adult caregivers. It develops when a child experiences severe neglect or insufficient caregiving in early life, interfering with the formation of healthy attachment.

17.2 What Does Reactive Attachment Disorder Look Like in Children?

Children with RAD show limited attachment behaviors and difficulty seeking or accepting comfort from caregivers. Their emotional and social functioning is often affected.

- **Minimal seeking of comfort:** Children rarely go to caregivers when distressed.

  - *Example: A child falls and cries but walks away without looking for an adult to help.*

- **Minimal responding to comfort:** Children show limited response when comfort is offered.

  - *Example: A caregiver hugs a distressed child who remains stiff and avoids eye contact.*

- **Social and emotional withdrawal:** Reduced positive affect and limited social engagement.

– *Example: A child rarely smiles, avoids interactions, and seems disconnected from peers.*

- **Unexplained irritability or sadness:** Emotional responses may seem out of context.

  – *Example: A child becomes tearful or irritable without a clear trigger.*

17.3 How Do We Diagnose Reactive Attachment Disorder?

Diagnosis requires evidence of severe social neglect early in life and a persistent pattern of emotionally withdrawn behavior toward caregivers. Symptoms must begin before age 5 and the child must have a developmental age of at least 9 months.

17.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: A consistent pattern of inhibited, emotionally withdrawn behavior toward adult caregivers, shown by rarely seeking or responding to comfort when distressed.

Criterion B: A persistent social and emotional disturbance, characterized by at least two of the following: minimal social/emotional responsiveness; limited positive affect; unexplained irritability, sadness, or fearfulness.

Criterion C: The child has experienced extremes of insufficient care, such as social neglect/deprivation, repeated caregiver changes, or rearing in unusual settings.

Criterion D: The care in Criterion C is presumed to be responsible for the disturbed behavior.

Criterion E: The child does not meet criteria for autism spectrum disorder.

Criterion F: Disturbance is evident before age 5.

Criterion G: The child has a developmental age of at least 9 months.

17.3.2 Specifiers

RAD includes the following specifier:

- **Persistent:** Symptoms present for more than 12 months.

17.3.3 Severity

Severity is based on how fully symptoms meet all criteria, with severe cases showing all symptoms at high levels.

- **Severe:** All symptoms present at high levels.

  - *Example: A child shows no comfort-seeking behavior, displays persistent emotional withdrawal, and has a history of extreme neglect.*

17.3.4 Assessment Tools Used in Diagnosis

Screening and assessment typically combine caregiver interviews, direct observation, and structured tools.

- **Disturbances of Attachment Interview (DAI):** A semi-structured interview assessing attachment-related behaviors.
- **RAD Assessment Tool:** Measures inhibited and withdrawn behaviors.
- **Behavioral observations:** Clinicians observe child-caregiver interactions to assess comfort-seeking, responsiveness, and emotional engagement.

17.3.5 Differential Diagnosis

RAD must be differentiated from autism spectrum disorder, which involves broader social communication deficits not specifically linked to neglect. Depressive disorders may include withdrawal but typically involve pervasive low mood. Intellectual developmental disorder can affect social behavior, but symptoms stem from cognitive limitations rather than attachment disturbances. ADHD-related impulsivity may mimic social difficulties but does not involve impaired attachment behaviors.

17.3.6 Comorbidities

Children with RAD may also show cognitive delays, language delays, or other trauma-related symptoms. While RAD itself does not commonly co-occur with many psychiatric disorders, children with histories of neglect may show comorbid developmental delays or emotional disorders resulting from early deprivation.

17.4 Contributing Factors

The primary contributing factor is severe social neglect or deprivation in early childhood. This may include institutional rearing, frequent caregiver changes, or environments where basic emotional and physical needs are not met.

Factors include:

- Early deprivation
- Inconsistent caregiving
- High caregiver-to-child ratios (e.g., institutional settings)
- Limited opportunities for stable attachment

17.5 How Do We Treat Reactive Attachment Disorder?

Treatment focuses on building secure attachments and reducing emotional withdrawal.

Attachment-based therapy: Helps strengthen the child-caregiver bond through consistent, responsive interactions.

Parent training and support: Caregivers learn strategies to provide sensitive, predictable care.

Trauma-informed therapy: Addresses the impact of early neglect and supports emotional regulation.

Behavioral interventions: Promote social engagement and positive interactions.

The Overall Goal: The goal of treatment is to help children form stable, secure attachments, increase emotional responsiveness, and support healthy development.

17.6 What Is the Prognosis?

With stable, nurturing caregiving and early intervention, many children show significant improvement. However, without consistent care, symptoms may persist and affect emotional, social, and cognitive development.

17.7 Prevalence & Statistics

Reactive Attachment Disorder is uncommon in the general population but occurs in high-risk groups, such as children raised in institutions. DSM-5-TR notes significantly higher rates in severely neglected populations.

17.8 Reflection

Think about how early caregiving shapes children's emotional development.

1. How might early neglect alter the ways children seek comfort?
2. Why might children with RAD appear distant even when they want connection?
3. What assumptions might people make when they see a child who avoids comfort?

17.9 Discussion

1. Why is early caregiving stability essential for healthy attachment?
2. What challenges arise when distinguishing RAD from autism?
3. How does neglect influence emotional development?
4. What caregiver behaviors help promote attachment in treatment?

17.10 Key Terms

Attachment-based therapy: A therapeutic approach focused on strengthening the caregiver-child bond.

Developmental age: A measure of a child's functioning relative to typical developmental milestones.

Emotional withdrawal: Reduced emotional responsiveness or limited engagement with care-givers.

Reactive Attachment Disorder: A trauma- and stressor-related disorder involving inhibited attachment behaviors resulting from early neglect.

Social neglect: A lack of adequate caregiving or opportunities for stable attachment early in life.

18 Adjustment Disorders

18.0.0.1 *Take a Moment: What Do You Think Adjustment Disorders Is?*

Think about how children typically respond to stressful events like parents divorcing. What assumptions might people make about how quickly a child "should" behavior and bounce back?

18.1 What Is Adjustment Disorder?

Adjustment Disorders involve emotional or behavioral responses to an identifiable stressor occurring within three months of the event. These reactions are out of proportion to the severity of the stressor and/or cause significant impairment in functioning. Unlike PTSD, the stressor does not need to be traumatic, and symptoms do not include intrusion, avoidance, or hyperarousal patterns tied to trauma-specific reactions.

18.2 What Does Adjustment Disorder Look Like in Children?

Children may show distress, mood changes, or behavior problems shortly after a stressful event. Presentations vary widely depending on both the child and the stressor.

- **Emotional distress:** A child appears tearful, withdrawn, or overwhelmed.

    - *Example: A child cries daily and avoids activities after moving to a new school.*

- **Behavioral changes:** Acting out, irritability, or new oppositional behaviors may emerge.

    - *Example: A child begins arguing with teachers and refusing assignments after parental separation.*

- **Functional difficulties:** Declines in school performance or trouble with peers.

    - *Example: A child stops turning in homework and avoids friends after a stressful family event.*

18.3 How Do We Diagnose It?

Diagnosis requires identifying a clear stressor and determining that the child's symptoms exceed what would be expected or lead to impairment. Symptoms must emerge within three months of the stressor and should not meet criteria for another mental disorder.

18.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Emotional or behavioral symptoms develop within three months of the onset of an identifiable stressor.

Criterion B: Symptoms or behaviors are clinically significant as evidenced by one or both of the following:

- **Marked distress:** Distress that is out of proportion to the severity or intensity of the stressor.

  - *Example: A child becomes extremely fearful and tearful daily after starting a new after-school program.*

- **Significant impairment:** Difficulties in social, academic, or other important areas.

  - *Example: A child's school attendance drops dramatically after parents' divorce.*

Criterion C: The symptoms do not meet criteria for another mental disorder and are not merely an exacerbation of a preexisting mental disorder.

Criterion D: Symptoms do not represent normal bereavement.

Criterion E: Once the stressor or its consequences have ended, symptoms do not persist for more than an additional six months.

18.3.2 Specifiers

Specifiers help describe the predominant pattern of symptoms.

- **With depressed mood**

  - *Example: Sadness, tearfulness, and feelings of hopelessness following a family stressor.*

- **With anxiety**

  - *Example: Excessive worry and fears after a significant change like a new school.*

- **With mixed anxiety and depressed mood**

  – *Example: A child who is both sad and worried after parental separation.*

- **With disturbance of conduct**

  – *Example: Acting out, rule-breaking, or aggression following a stressful event.*

- **With mixed disturbance of emotions and conduct**

  – *Example: Sadness combined with new oppositional or aggressive behaviors.*

- **Unspecified**

  – *Example: A reaction that does not fit clearly into another subtype but still causes impairment.*

18.3.3 Assessment Tools Used in Diagnosis

Adjustment Disorders rely heavily on clinical history and context.

- **Clinical interviews:** Identify the stressor, timeline, and symptom impact.
- **Behavioral observations:** Monitor changes in affect, behavior, and functioning following the stressor.
- **Standardized measures:** Tools like the **Child Behavior Checklist (CBCL)** can capture mood or behavior changes, though no measure diagnoses Adjustment Disorder directly.

18.3.4 Differential Diagnosis

Clinicians must distinguish Adjustment Disorders from disorders with similar presentations. Depressive disorders involve more persistent and pervasive low mood not confined to a specific stressor. Anxiety disorders feature excessive worry or fear not limited to the identified event. PTSD or Acute Stress Disorder may be considered when the stressor is traumatic and symptoms include intrusion, avoidance, or hyperarousal. Conduct Disorder or ODD may be diagnosed instead if behavior problems are persistent and not clearly tied to a stressor.

18.3.5 Comorbidities

Adjustment Disorders can co-occur with anxiety disorders, depressive symptoms, or behavioral issues. Children with preexisting vulnerabilities (e.g., ADHD, learning disorders, family stress) may show intensified symptoms following a stressor.

18.4 Contributing Factors

Adjustment Disorders are influenced by the nature and severity of the stressor, a child's temperament, coping skills, and environmental supports. Family conflict, low social support, and prior adverse experiences can increase vulnerability. Protective factors like strong caregiver relationships help moderate responses.

18.5 How Do We Treat Adjustment Disorders?

Treatment focuses on helping children cope with the stressor and restore functioning.

Cognitive-Behavioral Therapy: Teaches coping skills, emotional regulation, and problem-solving related to the stressor.

Parent support and training: Helps caregivers respond sensitively, reduce environmental stress, and reinforce adaptive behaviors.

School-based interventions: Support academic functioning, transitions, and peer connections.

The Overall Goal The goal is to help the child adapt to the stressor, develop resilience, and regain normal functioning.

18.6 What Is the Prognosis?

Adjustment Disorders are generally time-limited, and symptoms often resolve once the child adapts or the stressor is removed. With support, most children recover fully. Without support, symptoms may evolve into longer-term mood or behavioral disorders.

18.7 Prevalence & Statistics

DSM-5-TR notes that Adjustment Disorders are common in clinical settings, though exact prevalence is difficult to establish. Rates vary by population and exposure to stressors.

18.8 Reflection

Think about how you once responded to a major change or stressor.

1. What factors might make a child's response stronger or longer lasting than expected?
2. How does context shape whether a reaction is considered typical or disordered?

18.9 Discussion

1. What types of stressors most often lead to Adjustment Disorders in children?
2. How do clinicians distinguish between typical stress responses and clinically significant ones?
3. How can schools support students struggling after a major life change?
4. What role do caregivers play in helping children adapt to stress?
5. How do we prevent escalation into other disorders?
6. How would treatment differ depending on the specifier?

18.10 Key Terms

Adjustment Disorder: A stress-related condition involving emotional or behavioral symptoms in response to an identifiable stressor.

Child Behavior Checklist (CBCL): A standardized caregiver-report tool measuring behavioral and emotional functioning.

Conduct Disturbance: Behavioral symptoms such as aggression, defiance, or rule-breaking.

Part VI

Depressive and Bipolar-Related Disorders

Depressive and Bipolar-Related Disorders

Depressive and bipolar-related disorders are conditions that affect a child's mood, emotional expression, energy level, and ability to function. While mood changes are a normal part of childhood and adolescence, these disorders involve patterns of sadness, irritability, or mood elevation that are intense, persistent, and disruptive to daily life. They reflect differences in how the brain regulates emotions, motivation, and activity level, and they can significantly impact school performance, relationships, and self-esteem.

Depressive disorders in children often present with irritability rather than overt sadness, along with loss of interest in activities, changes in sleep or appetite, fatigue, or feelings of worthlessness. Bipolar-related disorders involve episodes of unusually elevated, expansive, or irritable mood, along with increased energy or activity. These symptoms can be especially challenging to identify in youth, as they may appear as extreme silliness, risk-taking, rapid speech, or shifting interests. Because children's developmental stage influences how mood symptoms appear, clinicians must carefully distinguish these disorders from typical mood fluctuations, ADHD, trauma responses, or behavioral conditions.

Early recognition and support are crucial. With appropriate treatment, including therapy, family involvement, school accommodations, and sometimes medication, many children experience meaningful improvement and learn tools to manage their symptoms over time.

Depressive Disorders (DSM-5-TR):

- Disruptive Mood Dysregulation Disorder
- Major Depressive Disorder
- Persistent Depressive Disorder (Dysthymia)
- Premenstrual Dysphoric Disorder (typically diagnosed in adolescents)
- Substance/Medication-Induced Depressive Disorder
- Depressive Disorder Due to Another Medical Condition
- Other Specified Depressive Disorder
- Unspecified Depressive Disorder

Bipolar and Related Disorders (DSM-5-TR):

- Bipolar I Disorder
- Bipolar II Disorder
- Cyclothymic Disorder
- Substance/Medication-Induced Bipolar and Related Disorder

- Bipolar and Related Disorder Due to Another Medical Condition
- Other Specified Bipolar and Related Disorder
- Unspecified Bipolar and Related Disorder

19 Major Depressive Disorder

19.0.0.1 *Take a Moment: What Do You Think Major Depressive Disorder Is?*

Think about what comes to mind when you picture depression in children and adolescents. Do young people show sadness in the same ways as adults? What signs might be easy to overlook or misinterpret?

19.1 What Is Major Depressive Disorder?

Major Depressive Disorder (MDD) is characterized by persistent low mood or loss of interest or pleasure, along with cognitive, emotional, and physical symptoms that significantly impair functioning. In children and adolescents, mood changes may appear as irritability rather than sadness.

19.2 What Does Major Depressive Disorder Look Like in Children?

Depression in youth can present differently from adult depression. Children may appear irritable, withdrawn, or show physical complaints, while adolescents may demonstrate hopelessness, social withdrawal, or risk-taking behaviors.

Depressed or irritable mood:

- *Example: A 12-year-old becomes easily annoyed and snaps at peers, or a younger child appears persistently sad and tearful.*

Loss of interest or pleasure:

- *Example: A child who previously loved soccer no longer wants to attend practice and shows little enthusiasm for play.*

Changes in sleep or appetite:

- *Example: An adolescent begins sleeping excessively and skipping meals, or a child shows reduced appetite and trouble falling asleep.*

Fatigue or low energy:

- *Example: A teen reports feeling exhausted even after resting and struggles to get through school tasks.*

Difficulty concentrating:

- *Example: A child drifts off during class and cannot stay focused on assignments.*

Feelings of worthlessness or guilt:

- *Example: A 13-year-old repeatedly says they are "a burden" or "can't do anything right."*

Thoughts of death:

- *Example: A child casually mentions not wanting to wake up or talks about themes of dying in drawings.*

19.3 How Do We Diagnose It?

Diagnosis requires identifying a pattern of symptoms that persist for at least two weeks and represent a change from prior functioning. Symptoms must cause distress or impairment and cannot be better explained by another disorder or medical condition.

19.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Five or more symptoms have been present during the same two-week period, representing a change from previous functioning, and may include depressed or irritable mood, loss of interest, changes in appetite or weight, sleep disturbance, psychomotor agitation or slowing, fatigue, feelings of worthlessness or guilt, difficulty concentrating, or recurrent thoughts of death.

Criterion B: Symptoms cause clinically significant distress or impairment.

Criterion C: The episode is not attributable to substance use or a medical condition.

Criterion D: The episode is not better explained by another disorder, such as bipolar disorder.

Criterion E: There has never been a manic or hypomanic episode.

19.3.2 Specifiers

Specifiers describe additional features of the depressive episode.

- **With anxious distress**

  - *Example: A teen reports constant worry, restlessness, and tension alongside depression.*

- **With mixed features**

  - *Example: A youth shows increased energy and talkativeness during a depressive episode.*

- **With melancholic features**

  - *Example: A child shows profound loss of pleasure.*

- **With atypical features**

  - *Example: An adolescent sleeps more than usual and shows mood reactivity.*

- **With psychotic features**

  - *Example: A teen describes hearing a negative voice telling them they are worthless.*

- **With catatonia**

  - *Example: A child appears frozen or minimally responsive during severe depressive states.*

- **With seasonal pattern**

  - *Example: Symptoms intensify during winter months.*

- **With peripartum onset** (rare for adolescents who have recently given birth)

  - *Example: A teen mother develops depressive symptoms within weeks of delivery.*

19.3.3 Severity

Severity indicates how impairing symptoms are.

- **Mild:**

  - *Example: A child functions but struggles with mood and motivation.*

- **Moderate:**

  - *Example: Symptoms cause noticeable difficulty at school, home, or with peers.*

- **Severe:**

  - *Example: A teen cannot attend school, experiences suicidal thoughts, or has psychotic symptoms.*

19.3.4 Assessment Tools Used in Diagnosis

Children's Depression Inventory (CDI): A self-report tool measuring depressive symptoms in children and adolescents.

PHQ-9 Modified for Adolescents: Assesses severity of depressive symptoms and suicidal ideation.

Behavioral observations: Clinicians note withdrawal, irritability, fatigue, and changes in activity level, mood, and engagement.

Parent and teacher interviews: Provide context about functioning across settings.

19.3.5 Differential Diagnosis

Major Depressive Disorder must be differentiated from Persistent Depressive Disorder, which involves longer-lasting but often less acute symptoms. Bipolar Disorder includes episodes of elevated mood not present in MDD. ADHD may appear similar when inattention or low motivation dominates but lacks the pervasive mood symptoms. Adjustment Disorder involves symptoms in response to identifiable stressors but does not meet full criteria for MDD. Normal grief, Bereavement, can resemble depression but involves a different emotional trajectory.

19.3.6 Comorbidities

MDD commonly co-occurs with anxiety disorders, which may present as excessive worry or fear. ADHD may co-occur, especially when attentional difficulties worsen during depressive episodes. Substance use disorders are more common among adolescents with depression. Disruptive behavior disorders and eating disorders may also appear alongside MDD.

19.4 Contributing Factors

Contributing factors include genetic vulnerability, family history of depression, exposure to chronic stress, trauma, bullying, and family conflict. Neurobiological factors such as neurotransmitter functioning, hormonal changes during puberty, and sleep disruption may also contribute.

19.5 How Do We Treat Major Depressive Disorder?

Treatment often includes psychotherapy, lifestyle interventions, and sometimes medication.

Cognitive-Behavioral Therapy: Helps youth challenge negative thoughts and increase engagement in meaningful activities.

Interpersonal Therapy for Adolescents: Focuses on improving relationships, communication, and coping with interpersonal stress.

Behavioral Activation: Encourages re-engagement with valued activities to reduce withdrawal and improve mood.

Family-focused interventions: Support parents in responding to depressive symptoms and improving family communication.

Medication: SSRIs may be considered when symptoms are moderate to severe or when therapy alone does not sufficiently reduce impairment. Medications can have negative side effects in children. Careful monitoring is a must.

The Overall Goal Treatment aims to improve mood, restore functioning, reduce distress, and help youth build coping skills for managing depressive symptoms.

19.6 What Is the Prognosis?

Many children and adolescents recover fully with treatment, though some experience recurrent episodes. Early intervention improves long-term outcomes. Without treatment, depression may become chronic or escalate into more severe impairment.

19.7 Prevalence & Statistics

According to DSM-5-TR, depressive disorders are common 4% (3-17 years old), with rates increasing during adolescence (20%). Prevalence rises notably after puberty, particularly among girls.

19.8 Reflection

Consider how depression in youth may look different from what you initially imagined.

1. How might irritability mask underlying depressive symptoms in children?
2. What signs might be easily misinterpreted as misbehavior rather than depression?
3. How might developmental stage influence how depression is expressed?

19.9 Discussion

1. How does depression present differently in children compared to adolescents?
2. What challenges arise when distinguishing MDD from normal mood fluctuations?
3. How do school environments influence depressive symptoms?
4. How might peer relationships affect mood and functioning?
5. How can clinicians effectively assess suicidal ideation in youth?
6. How might cultural factors influence the expression or reporting of depression?

19.10 Key Terms

Behavioral Activation: A treatment approach that increases engagement in rewarding activities.

Cognitive-Behavioral Therapy: A structured psychotherapy focusing on changing negative thoughts and behaviors.

Children's Depression Inventory: A self-report assessment measuring depressive symptoms in youth.

Major Depressive Disorder: A condition involving persistent low mood or loss of interest with significant impairment.

PHQ-9 Modified for Adolescents: A brief screening measure of depressive symptoms and suicidal ideation.

20 Disruptive Mood Dysregulation Disorder

20.0.0.1 *Take a Moment: What Do You Think Disruptive Mood Dysregulation Disorder Is?*

Consider what chronic irritability looks like in children. How do you distinguish typical tantrums from something more severe? What assumptions might people get wrong about persistent outbursts?

20.1 What Is Disruptive Mood Dysregulation Disorder?

Disruptive Mood Dysregulation Disorder (DMDD) is characterized by severe, recurrent temper outbursts and persistent irritability between outbursts. These symptoms are chronic, developmentally inappropriate, and occur in more than one setting. DMDD aims to capture children with severe irritability that does not align with pediatric bipolar disorder, and it differs from Oppositional Defiant Disorder or Conduct Disorder by emphasizing chronic, pervasive mood disturbance rather than primarily defiant or rule-breaking behaviors.

20.2 What Does Disruptive Mood Dysregulation Disorder Look Like in Children?

Children with DMDD experience near-constant irritability and have intense behavioral reactions to frustration. These outbursts disrupt functioning at home, school, and in peer relationships.

Severe recurrent temper outbursts:

- *Example: A child becomes overwhelmingly distressed by emotional overload, such as sudden shifts in plans or unexpected transitions, leading to intense crying or yelling.*

Persistent irritability between outbursts:

- *Example: A child shows a consistently low tolerance for sensory or emotional input, reacting with simmering frustration or sadness throughout the day rather than purposeful defiance.*

Impairment across settings:

- *Example: Teachers note chronic moodiness and emotional volatility even during preferred activities, while caregivers observe prolonged emotional fatigue and difficulty recovering from minor setbacks.*

20.3 How Do We Diagnose It?

Diagnosis focuses on identifying chronic irritability and frequent severe outbursts that are disproportionate to the situation and present for at least one year across multiple settings.

20.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Severe recurrent temper outbursts that are grossly out of proportion in intensity or duration to the situation.

Criterion B: Temper outbursts are inconsistent with developmental level.

Criterion C: Outbursts occur, on average, three or more times per week.

Criterion D: Mood between outbursts is persistently irritable or angry most of the day, nearly every day, and is observable by others.

Criterion E: Criteria A–D have been present for 12 or more months, with no period of 3 or more consecutive months without all symptoms.

Criterion F: Symptoms occur in at least two of three settings (home, school, with peers) and must be severe in at least one.

Criterion G: Diagnosis should not be made before age 6 or after age 18.

Criterion H: Age of onset of symptoms must be before age 10.

Criterion I: There has never been a distinct period lasting more than one day during which full symptom criteria for a manic or hypomanic episode were met.

Criterion J: Behaviors do not occur exclusively during a major depressive episode and are not better explained by another disorder. Diagnosis cannot occur with oppositional defiant disorder, intermittent, explosive disorder, or bipolar disorder.

Criterion K: Symptoms are not attributable to substances or another medical or neurological condition.

20.3.2 Assessment Tools Used in Diagnosis

Clinical interviews: Structured or semi-structured interviews help establish chronic irritability, onset age, and settings impacted.

Child Behavior Checklist (CBCL): A broad behavior rating scale capturing irritability patterns, externalizing behaviors, and emotional dysregulation.

Disruptive Behavior Diagnostic Observation: Clinicians observe frustration tolerance, mood shifts, and intensity of reactions.

Teacher and caregiver reports: Multi-informant perspectives help clarify symptom consistency across settings.

20.3.3 Differential Diagnosis

DMDD must be distinguished from several disorders. Oppositional Defiant Disorder features defiant behavior, but DMDD adds severe mood dysregulation and persistent irritability. Importantly, if a child meets criteria for both DMDD and Oppositional Defiant Disorder, DMDD is assigned and ODD is not diagnosed. Many children with DMDD also meet ODD criteria due to overlapping irritability and behavioral patterns, but the reverse is not true because most children with ODD do not exhibit the chronic, pervasive irritability required for DMDD. Bipolar Disorder involves episodic mood changes, while DMDD symptoms are chronic and non-episodic. Intermittent Explosive Disorder includes severe outbursts but lacks continuous irritability between episodes and does not require early onset. ADHD and Autism Spectrum Disorder may involve emotional dysregulation but are defined by attentional or social communication deficits rather than persistent irritability. Depression or anxiety may present with irritability, though not with the chronic, severe pattern required for DMDD.

20.3.4 Comorbidities

Common comorbidities include ADHD, anxiety disorders, and depressive disorders. Many children with DMDD also meet criteria for Oppositional Defiant Disorder due to shared patterns of irritability and behavioral reactivity. Learning and communication difficulties can appear as secondary impacts of chronic dysregulation.

20.4 Contributing Factors

DMDD arises from interactions among biological, genetic, and environmental factors. Children with a family history of mood or anxiety disorders may be more prone to chronic irritability.

Environmental contributors include exposure to early adversity, inconsistent parenting practices, high-conflict environments, and malnutrition.

20.5 How Do We Treat Disruptive Mood Dysregulation Disorder?

Treatment focuses on improving emotional regulation, frustration tolerance, and family support systems.

Cognitive-Behavioral Therapy: A structured therapy focused on building emotional regulation and coping skills.

Dialectical Behavior Therapy for Children: A therapeutic approach emphasizing distress tolerance and emotional regulation.

Disruptive Mood Dysregulation Disorder: A condition involving chronic irritability and severe temper outbursts.

Intermittent Explosive Disorder: A disorder marked by sudden, impulsive aggressive outbursts without chronic irritability between episodes.

Oppositional Defiant Disorder: A pattern of angry or irritable mood and argumentative or defiant behavior toward authority figures.

Parent Management Training: A caregiver-focused intervention that promotes consistent behavior strategies.

Dialectical Behavior Therapy for Children: Helps build distress tolerance, mindfulness, and emotional regulation skills.

School-based supports: Provide structure, predictable routines, and proactive behavioral supports.

Medication: SSRIs or stimulants may be used when comorbid anxiety, depression, or ADHD contributes to irritability.

The Overall Goal The aim of treatment is to reduce severe outbursts, improve mood stability between episodes, and enhance functioning across settings.

20.6 What Is the Prognosis?

Many children improve with consistent intervention, though symptoms may continue into adolescence. Without treatment, chronic irritability increases risk of later anxiety and depressive disorders. Early recognition and support lead to better long-term outcomes.

20.7 Prevalence & Statistics

DSM-5-TR indicates that DMDD is relatively uncommon, with prevalence estimated at about 2.5% of children and adolescents.

20.8 Reflection

Consider how chronic irritability differs from typical moodiness.

1. When does irritability become clinically significant?
2. How might chronic anger affect a child's relationships and school life?
3. What misconceptions might adults have about children with persistent irritability?

20.9 Discussion

1. How do we distinguish DMDD from typical tantrums?
2. Why is developmental appropriateness key to diagnosis?
3. How might family stress contribute to emotional dysregulation?
4. How could schools better support children with DMDD?
5. Why is chronic irritability different from episodic mood disorders?
6. What cultural factors might influence how irritability is interpreted?

20.10 Key Terms

Cognitive-Behavioral Therapy: A structured therapy focused on building emotional regulation and coping skills.

Dialectical Behavior Therapy for Children: A therapeutic approach emphasizing distress tolerance and emotional regulation.

Disruptive Mood Dysregulation Disorder: A condition involving chronic irritability and severe temper outbursts.

Parent Management Training: A caregiver-focused intervention that promotes consistent behavior strategies.

21 Bipolar I

21.0.0.1 *Take a Moment: What Do You Think Bipolar I Disorder Is?*

Think about what comes to mind when you hear the term Bipolar I Disorder. Do you picture sudden shifts in energy or extreme mood states? What might people misunderstand about how mania looks in children?

21.1 What Is Bipolar I Disorder?

Bipolar I Disorder is defined by the presence of at least one manic episode, which involves a sustained period of abnormally elevated, expansive, or irritable mood along with increased energy or activity. These episodes may alternate with periods of depression, though a depressive episode is not required for the diagnosis.

21.2 What Does Bipolar I Disorder Look Like in Children?

Children with Bipolar I Disorder often present with episodes of dramatically elevated or irritable mood and significant changes in behavior, energy, or activity. Their symptoms may be mistaken for typical developmental behaviors, ADHD, or disruptive behavior disorders. Children with Bipolar I may or may not also cycle with periods of depression. (Bipolar II includes cycles of hypomania and depression.)

- **Elevated or irritable mood:**

    - *Example: A child talks nonstop, becomes extremely silly or aggressive, or shifts quickly between excitement and anger.*

- **Increased energy or goal-directed activity:**

    - *Example: A child starts multiple projects, cleans their room at 2 a.m., or suddenly attempts risky stunts.*

- **Decreased need for sleep:**

- *Example: A child sleeps only a few hours and wakes up full of energy without feeling tired.*

- **Impulsivity and risky behaviors:**

  - *Example: A child attempts dangerous physical challenges or spends large amounts of money online without permission.*

21.3 How Do We Diagnose It?

Diagnosis requires identifying at least one manic episode with significant changes in mood, energy, or behavior lasting at least one week (or any duration if hospitalization is needed). Symptoms must cause impairment and cannot be better explained by another disorder or substance use.

21.3.1 DSM-5-TR Diagnostic Criteria

Before diagnosing Bipolar I Disorder, it is essential to understand what a manic episode is, because Bipolar I is defined by the presence of at least one manic episode. Below are the DSM-5-TR criteria for a manic episode, followed by the brief criteria that define Bipolar I Disorder itself.

Manic Episode Criteria

Criterion A: A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally increased energy or activity lasting at least one week, or any duration when hospitalization is necessary.

Criterion B: During this period, three or more of the following symptoms (or four if mood is irritable) are present to a significant degree:

- **Inflated self-esteem or grandiosity**
- **Decreased need for sleep**
- **More talkative than usual or pressured speech**
- **Flight of ideas or racing thoughts**
- **Distractibility**
- **Increase in goal-directed activity or psychomotor agitation**
- **Excessive involvement in risky activities**

Criterion C: The mood disturbance is severe enough to cause marked impairment or requires hospitalization, or includes psychotic features.

Criterion D: The episode is not attributable to a substance or medical condition.

A manic episode that emerges during antidepressant treatment may count toward diagnosis if symptoms persist beyond the physiological effects of the treatment.

Bipolar I Disorder Diagnosis (Brief DSM-5-TR Criteria)

The diagnosis of Bipolar I Disorder requires:

- At least one lifetime manic episode.
- The manic episode cannot be better explained by a psychotic disorder.
- A depressive episode is *not* required but may occur.

These criteria are intentionally brief because Bipolar I is defined entirely by the presence of a manic episode, which is why the manic episode criteria are the primary focus.

21.3.2 Specifiers

Specifiers help describe the nature of the current or most recent episode.

- **With anxious distress**

  - *Example: A child shows high tension, restlessness, and worry during a manic episode.*

- **With mixed features**

  - *Example: A child experiences elevated mood alongside sadness or hopelessness.*

- **With psychotic features**

  - *Example: A child believes they have special powers or hears voices during mania.*

- **With rapid cycling**

  - *Example: A child shifts between mood episodes four or more times in a year.*

- **With mood-congruent psychotic features**

  - *Example: A child believes they are extraordinarily talented or powerful.*

- **With mood-incongruent psychotic features**

  - *Example: A child has paranoid delusions unrelated to manic themes.*

21.3.3 Severity

Severity describes the level of functional impairment.

- **Mild:**

  - *Example: Symptoms are noticeable but allow the child to function with some difficulty.*

- **Moderate:**

  - *Example: Symptoms interfere with school, family, or peer functioning.*

- **Severe:**

  - *Example: Symptoms cause significant impairment, possibly requiring hospitalization.*

21.3.4 Assessment Tools Used in Diagnosis

K-SADS (Kiddie Schedule for Affective Disorders and Schizophrenia): A structured diagnostic interview assessing mood symptoms and episode patterns.

Young Mania Rating Scale (YMRS): Evaluates severity of manic symptoms.

Child Behavior Checklist (CBCL): Identifies behavioral and emotional difficulties that may suggest mood dysregulation.

Behavioral observations: Clinicians monitor sleep patterns, energy, irritability, impulsivity, and abrupt changes in functioning.

21.3.5 Differential Diagnosis

Bipolar I Disorder must be distinguished from other conditions with overlapping symptoms. ADHD can involve high energy and impulsivity, but lacks distinct mood episodes. Oppositional Defiant Disorder includes irritability and defiance but does not show episodic mood elevation. Disruptive Mood Dysregulation Disorder features chronic irritability rather than discrete manic episodes. Major Depressive Disorder with mixed features can resemble mania but does not include sustained elevated mood or increased goal-directed behavior. Schizoaffective Disorder includes psychotic symptoms outside mood episodes, while in Bipolar I they occur only during episodes. Substance/medication-induced bipolar symptoms must also be ruled out.

21.3.6 Comorbidities

Children with Bipolar I Disorder frequently experience additional conditions. Anxiety disorders may intensify mood instability. ADHD is common and can complicate mood symptoms. Substance use disorders may emerge in adolescence, often related to impulsivity and risk-taking. Conduct problems, sleep disturbances, and depressive episodes can also co-occur. Medical issues such as thyroid abnormalities may contribute to symptom patterns.

21.4 Contributing Factors

Multiple genetic, biological, and environmental factors contribute to the development of Bipolar I Disorder. Family history plays a significant role, suggesting strong heritability. Neurobiological factors include irregularities in brain circuits involved in emotion regulation and reward processing. Environmental influences such as early trauma, high family conflict, or stressful life events may trigger or worsen episodes. Sleep disruptions and inconsistent routines can also precipitate mood episodes.

21.5 How Do We Treat Bipolar I Disorder?

Treatment aims to stabilize mood, reduce episode frequency and severity, and improve functioning.

Mood stabilizers: These medications help regulate mood swings. Examples include lithium or valproate.

Atypical antipsychotics: Used to treat mania or psychotic symptoms. Examples include risperidone or quetiapine.

Psychoeducation: Helps children and families understand mood episodes and develop strategies for managing symptoms.

Family-focused therapy: Supports improved communication, reduces conflict, and establishes stable routines.

Cognitive-Behavioral Therapy: Helps children manage impulsivity, identify triggers, and create healthy sleep and activity patterns.

The Overall Goal The aim of treatment is to help children achieve stability, maintain consistent functioning, reduce relapse risk, and improve overall quality of life.

21.6 What Is the Prognosis?

Bipolar I Disorder is typically a lifelong condition with recurring mood episodes, but early identification and treatment can significantly improve outcomes. Many children achieve stability with appropriate supports, though episodes may recur during adolescence and adulthood. If left untreated, manic episodes can lead to dangerous behaviors such as severe risk-taking, accidental injuries, financial or legal consequences, or psychosis, making timely intervention critical.

21.7 Prevalence & Statistics

According to the DSM-5-TR, the lifetime prevalence of Bipolar I Disorder in adolescents is estimated to be around 1%. Onset in childhood is less common but still possible.

21.8 Reflection

Consider how the dramatic nature of manic episodes may affect how children are perceived by adults.

1. How might mania present differently in children compared to adults?
2. What assumptions might lead to misdiagnosis of mania as ADHD or behavior problems?

21.9 Discussion

1. Why is it difficult to distinguish mania from typical childhood behaviors?
2. What role does family history play in diagnosing Bipolar I Disorder?
3. How can schools support students with mood instability?
4. How does stress influence the onset or worsening of manic episodes?

21.10 Key Terms

Atypical Antipsychotics: Medications used to treat mood or psychotic symptoms.

Bipolar I Disorder: A condition defined by at least one manic episode last for at least one week.

Child Behavior Checklist (CBCL): A behavioral rating scale identifying emotional or behavioral problems.

Cognitive-Behavioral Therapy: A treatment approach targeting thoughts and behaviors.

Family-Focused Therapy: A therapeutic approach involving family communication and routines.

Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS): A structured diagnostic interview for assessing childhood psychiatric disorders.

Manic Episode: A distinct period of abnormally elevated or irritable mood with increased energy.

Mood Stabilizers: Medications used to regulate mood swings.

Young Mania Rating Scale (YMRS): A rating scale used to assess severity of manic symptoms.

22 Bipolar II

Take a Moment: What Do You Think Bipolar II Disorder Is?

Consider what you already know or assume about Bipolar II Disorder. Do people often confuse it with Bipolar I? What do you think the difference is? Why might hypomania be overlooked in children?

22.1 What Is Bipolar II Disorder?

Bipolar II Disorder is characterized by a pattern of at least one hypomanic episode and at least one major depressive episode. Unlike Bipolar I, individuals with Bipolar II have never experienced a full manic episode. The disorder involves significant mood shifts that affect functioning, relationships, and daily life.

22.2 What Does Bipolar II Disorder Look Like in Children?

In children, Bipolar II Disorder may appear as alternating periods of elevated or irritable mood that do not reach full mania, along with significant depressive episodes. Hypomanic symptoms may be mistaken for typical high energy or excitability, while depressive symptoms may look like withdrawal or irritability.

Hypomanic symptoms:

- *Example: A child becomes unusually talkative, energetic, or confident for several days, needing less sleep and jumping rapidly between activities.*

Depressive symptoms:

- *Example: A child withdraws from friends, shows persistent sadness or irritability, or loses interest in activities they previously enjoyed.*

22.3 How Do We Diagnose It?

Diagnosis requires identifying at least one hypomanic episode and one major depressive episode, with no history of mania. Symptoms must represent a noticeable change from typical behavior and cause impairment.

22.3.1 DSM-5-TR Diagnostic Criteria

To understand Bipolar II Disorder clearly, it is important to first explain the DSM-5-TR criteria for a Hypomanic Episode and a Major Depressive Episode, since Bipolar II is diagnosed only when these episodes have occurred. The DSM then provides a short set of criteria specific to Bipolar II Disorder.

22.3.2 Hypomanic Episode

Criterion A: A distinct period of abnormally and persistently elevated, expansive, or irritable mood and increased energy or activity, lasting at least four consecutive days, present most of the day, nearly every day.

Criterion B: During this period, three (or more) of the following symptoms (four if the mood is irritable only) are present to a significant degree:

- Inflated self-esteem or grandiosity
- Decreased need for sleep
- More talkative than usual or pressured speech
- Flight of ideas or racing thoughts
- Distractibility
- Increase in goal-directed activity or psychomotor agitation
- Excessive involvement in risky activities

Criterion C: The episode is associated with an unequivocal change in functioning that is uncharacteristic of the individual when not symptomatic.

Criterion D: The disturbance in mood and functioning is observable by others.

Criterion E: The episode is not severe enough to cause marked impairment, hospitalization, or psychosis. If these occur, the episode is classified as mania, not hypomania.

Criterion F: The episode is not attributable to the physiological effects of a substance or medical condition.

A hypomanic episode that emerges during antidepressant treatment may count toward diagnosis if symptoms persist beyond the physiological effects of the treatment.

22.3.3 Major Depressive Episode

A major depressive episode lasts at least two weeks, with at least one of the following: depressed/irritable mood or loss of interest.

- Depressed or irritable mood
- Loss of interest or pleasure
- Changes in weight or appetite
- Sleep disturbance
- Fatigue or low energy
- Feelings of worthlessness or guilt
- Difficulty concentrating
- Thoughts of death

22.3.4 Bipolar II Disorder

The diagnosis of Bipolar II Disorder requires:

Criterion A: At least one hypomanic episode and at least one major depressive episode.

Criterion B: There has never been a manic episode.

Criterion C: Episodes are not better explained by a psychotic disorder.

Criterion D: Symptoms cause clinically significant distress or impairment.

22.3.5 Specifiers

Specifiers describe features of the most recent episode. Below are the specifiers grouped by episode type.

Hypomanic Episode Specifiers:

- With anxious distress
- With mixed features
- With rapid cycling
- With atypical features
- With seasonal pattern

Depressive Episode Specifiers:

- With anxious distress
- With mixed features
- With melancholic features
- With atypical features

- With mood-congruent psychotic features
- With mood-incongruent psychotic features
- With seasonal pattern
- With peripartum onset

22.3.6 Severity

Severity applies when the depressive episode meets full criteria.

- **Mild**

  – *Example: Symptoms are present but manageable with mild impairment.*

- **Moderate**

  – *Example: Functional impairment becomes noticeable across settings.*

- **Severe**

  – *Example: Symptoms significantly interfere with daily functioning and relationships.*

22.3.7 Assessment Tools Used in Diagnosis

Clinicians use a combination of interviews, rating scales, and observations.

K-SADS (Kiddie Schedule for Affective Disorders and Schizophrenia): A structured diagnostic interview assessing mood symptoms and episode patterns.

Young Mania Rating Scale (YMRS): Evaluates severity of manic symptoms.

Child Behavior Checklist (CBCL): Identifies behavioral and emotional difficulties that may suggest mood dysregulation.

Behavioral observations: Clinicians monitor sleep patterns, energy, irritability, impulsivity, and abrupt changes in functioning.

22.3.8 Differential Diagnosis

Differential diagnosis includes distinguishing Bipolar II from Bipolar I Disorder, where full mania occurs rather than hypomania. Cyclothymic Disorder involves chronic fluctuating mood disturbances that do not meet full criteria for hypomania or major depression. ADHD may share symptoms of hyperactivity or impulsivity but lacks distinct episodic mood shifts. Major Depressive Disorder alone does not include hypomanic episodes. Additionally, Substance/Medication-Induced Bipolar and Related Disorders must be ruled out when mood episodes may be triggered by substances or medications.

22.3.9 Comorbidities

Common comorbidities include anxiety disorders, which may contribute to emotional dysregulation during episodes. ADHD may co-occur due to overlapping features such as impulsivity or difficulty with attention. Substance use disorders become more common in adolescence. Eating disorders and other depressive disorders can also appear alongside Bipolar II, complicating treatment.

22.4 Contributing Factors

Genetic influences play a significant role, as children with a family history of bipolar or mood disorders are at higher risk. Environmental stressors such as family conflict, trauma exposure, or inconsistent sleep patterns may trigger or worsen symptoms. Biological factors related to brain functioning and neurotransmitter regulation also contribute.

22.5 How Do We Treat Bipolar II Disorder?

Treatment typically includes mood stabilization, psychotherapy, and support for the family.

Cognitive-Behavioral Therapy: Helps children identify mood triggers, build coping strategies, and manage depressive thinking.

Psychoeducation: Teaches children and families about mood episodes, sleep hygiene, and early warning signs.

Family-Focused Therapy: Improves communication and reduces conflict within the family system.

Medication: Mood stabilizers or atypical antipsychotics may be used to manage hypomanic and depressive symptoms.

The Overall Goal The aim of treatment is to help stabilize mood, reduce recurrence of episodes, and support functioning across environments.

22.6 What Is the Prognosis?

With early identification and consistent treatment, children can manage symptoms effectively. However, Bipolar II tends to be chronic, and mood episodes can recur. Supportive environments and regular monitoring improve long-term outcomes.

22.7 Prevalence & Statistics

Bipolar II Disorder prevalence is around 0.5% in children and adolescents.

22.8 Reflection

Think back to your assumptions from the beginning. How do hypomanic symptoms differ from what you originally imagined?

1. How might hypomania be overlooked in children compared to adults?
2. Why is the combination of hypomania and depression important for diagnosis?

22.9 Discussion

1. What challenges arise when distinguishing Bipolar II from Bipolar I in children?
2. Why is structured sleep important for mood stability in this disorder?
3. What barriers might families face in accessing treatment?
4. How might Bipolar II affect academic functioning?

22.10 Key Terms

Bipolar I Disorder: A mood disorder characterized by at least one manic episode, which may be preceded or followed by hypomanic or depressive episodes.

Bipolar II Disorder: A mood disorder involving at least one hypomanic episode and one major depressive episode, with no history of mania.

Hypomania: A period of elevated or irritable mood that is less severe than mania.

K-SADS: A structured clinical interview used to diagnose psychiatric disorders in children.

Major Depressive Episode: A period of at least two weeks of depressed or irritable mood and other symptoms.

Mania: A period of abnormally elevated, expansive, or irritable mood with significantly increased activity or energy that causes marked impairment or requires hospitalization.

Part VII

Feeding and Eating Disorders

Feeding and Eating Disorders

Feeding and eating disorders are conditions characterized by persistent disturbances in eating behaviors, appetite, or food-related thoughts that impair a child's physical health, emotional well-being, or daily functioning. While picky eating and appetite changes are common in childhood, these disorders go far beyond typical developmental fluctuations. They involve patterns that are intense, inflexible, or driven by psychological factors such as fear, anxiety, or distorted beliefs about food or the body.

These disorders present differently across childhood. Some children struggle to meet nutritional needs due to sensory sensitivities, fear of choking or vomiting, or low interest in food. Others develop disturbances related to body image or weight, such as restricting intake, binge eating, or compensatory behaviors. Left unaddressed, these behaviors can lead to serious medical complications, impaired growth, family conflict around meals, and significant distress for both children and caregivers.

Early identification is critical. Feeding and eating disorders often develop gradually, and symptoms can be easily mistaken for willful behavior, stubbornness, or simple appetite issues. Developmentally informed assessment helps distinguish clinical concerns from typical variation and guides appropriate intervention.

Feeding and Eating Disorders (DSM-5-TR):

- Pica
- Rumination Disorder
- Avoidant/Restrictive Food Intake Disorder (ARFID)
- Anorexia Nervosa
- Bulimia Nervosa
- Binge-Eating Disorder
- Other Specified Feeding or Eating Disorder
- Unspecified Feeding or Eating Disorder

23 Anorexia Nervosa

23.0.0.1 *Take a Moment: What Do You Think Anorexia Nervosa Is?*

Consider what comes to mind when you hear this diagnosis. What assumptions might people make about why a child restricts eating? How might misconceptions about weight, body image, or motivation shape our understanding?

23.1 What Is Anorexia Nervosa?

Anorexia Nervosa is an eating disorder characterized by restriction of energy intake (i.e. food) leading to significantly low body weight, intense fear of gaining weight, and disturbances in the way one's body weight or shape is experienced. Children may not always articulate fear of weight gain; instead, their behaviors and avoidance patterns often indicate underlying concerns.

23.2 What Does Anorexia Nervosa Look Like in Children?

In children, Anorexia Nervosa may be harder to detect because weight and growth expectations vary. Children may show subtle avoidance of food, increased rigidity around eating, or sudden changes in mood or activity.

- **Restriction of food intake:**

    - *Example: A child begins skipping snacks, hides uneaten lunches, or claims to have already eaten.*

- **Fear of gaining weight or behaviors that prevent weight gain:**

    - *Example: A child becomes distressed when offered calorie-dense foods or insists on excessive exercise.*

- **Body image distortion:**

    - *Example: A child expresses feeling "too big" even when objectively underweight or focuses obsessively on certain body parts.*

23.3 How Do We Diagnose It?

Diagnosis involves identifying significant restriction of intake, low body weight (or failure to make expected gains for age and development), intense fear of weight gain, and disturbances in self-perception. Symptoms cannot be better explained by another medical or mental condition.

23.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Restriction of energy intake leading to significantly low body weight in context of age, sex, developmental trajectory, and physical health.

Criterion B: Intense fear of gaining weight or of becoming fat, or persistent behavior that interferes with weight gain.

Criterion C: Disturbance in body weight or shape experience, undue influence on self-evaluation, or persistent lack of recognition of the seriousness of current low weight.

23.3.2 Specifiers

Specifiers help identify the presentation of the disorder.

- **Restricting type**

    - *Example: Weight loss is primarily achieved through dieting, fasting, or exercise.*

- **Binge-eating/purging type**

    - *Example: The child engages in episodes of binge eating or purging behaviors such as vomiting or misuse of laxatives.*

23.3.3 Severity

Severity is determined by BMI percentile for children or degree of clinical impairment.

- **Mild**: BMI 17

    - *Example: Low body weight is concerning but child is still barely meeting minimal growth expectations.*

- **Moderate**: BMI 16–16.99

    - *Example: Noticeable decline in weight trajectory and increasing interfering behaviors.*

- **Severe**: BMI 15–15.99

  – *Example: Marked physical compromise and medically significant low weight.*

- **Extreme**: BMI < 15

  – *Example: Critically low weight with significant medical instability.*

23.3.4 Assessment Tools Used in Diagnosis

Eating Disorder Examination–Questionnaire (EDE-Q): Assesses concerns about eating, weight, and shape to understand symptom severity.

Eating Disorder Inventory (EDI): Measures psychological traits associated with eating disorders, including body dissatisfaction and drive for thinness.

Growth charts and medical evaluations: Track expected growth patterns, weight changes, and medical stability.

Behavioral observations: Identify avoidance of eating, rigid food rules, distress around meals, and excessive exercise.

23.3.5 Differential Diagnosis

Clinicians consider several conditions. Avoidant/Restrictive Food Intake Disorder (ARFID) involves food avoidance without weight or shape concerns. Major depressive disorder may include appetite loss but does not involve body image disturbance. Gastrointestinal conditions can cause weight loss but lack psychological features found in Anorexia Nervosa. Body Dysmorphic Disorder focuses on perceived flaws unrelated to weight. Other feeding disorders in childhood may involve picky eating rather than weight-driven restriction.

23.3.6 Comorbidities

Common comorbidities include anxiety disorders, particularly obsessive-compulsive features related to food rituals. Depressive disorders may emerge due to malnutrition or psychological distress. Other eating disorders such as Bulimia Nervosa may be present over time. Neurodevelopmental conditions like autism spectrum disorder may contribute to rigid behaviors around food.

23.4 Contributing Factors

Genetic influences increase vulnerability, especially in families with histories of anxiety, mood disorders, or eating disorders. Environmental factors include cultural emphasis on thinness, peer comparison, family conflict, and perfectionistic expectations. Biological factors such as early puberty or temperament traits like anxiety or rigidity may also contribute.

23.5 How Do We Treat Anorexia Nervosa?

Treatment focuses on restoring nutritional health, modifying unhealthy thoughts and behaviors, and addressing family dynamics.

Family-Based Treatment (FBT): Parents take an active role in supporting structured eating and interrupting restrictive behaviors.

Cognitive-Behavioral Therapy (CBT): Helps children identify distortions in body image, reduce fear of weight gain, and build healthier coping tools.

Nutritional rehabilitation: Structured meal plans, supervised eating, and building tolerance for foods.

Medical monitoring: Regular assessment of vital signs, labs, and growth to ensure stabilization.

The Overall Goal The goal is to restore physical health, normalize eating patterns, improve emotional functioning, and help the child build a balanced, developmentally appropriate relationship with food and body image.

23.6 What Is the Prognosis?

Early intervention is strongly linked to better recovery. Some children recover fully, while others develop a chronic course or transition into other eating disorders. Medical complications can be serious without appropriate treatment, including loss of menstruation in females, decreased bone density, and risks of organ failure when malnutrition is severe or prolonged.

23.7 Prevalence & Statistics

DSM-5-TR notes that Anorexia Nervosa is less common in children, with prevalence increasing in adolescence. Among adolescents, the prevalence is approximately 0.6%. Onset often occurs around early to mid-adolescence.

23.8 Reflection

Think back to your assumptions about why a child might restrict food or fear weight gain.

1. How might cultural messages influence a child's understanding of weight and body image?
2. Why might a child struggle to recognize the seriousness of their low weight?

23.9 Discussion

1. Why is early detection crucial for Anorexia Nervosa?
2. How does differentiating between ARFID and Anorexia Nervosa change treatment planning?
3. What family dynamics may influence the development or maintenance of symptoms?
4. How do medical complications impact urgency in treatment?

23.10 Key Terms

Anorexia Nervosa: An eating disorder involving restriction, fear of weight gain, and body image disturbance.

Body Image: How an individual perceives and evaluates their own body size and shape.

Bulimia Nervosa: An eating disorder involving recurrent binge eating followed by compensatory behaviors such as vomiting, fasting, or excessive exercise.

Cognitive-Behavioral Therapy: A therapeutic approach focused on changing unhelpful thoughts and behaviors.

Eating Disorder Examination–Questionnaire: A screening tool assessing eating disorder symptoms.

Eating Disorder Inventory: A measure of psychological traits associated with eating disorders.

Energy Intake: The amount of food energy consumed through eating and drinking.

Family-Based Treatment: A treatment model involving parents in refeeding and symptom interruption.

Nutritional Rehabilitation: Structured efforts to restore physical health and normalize eating.

Purging: Behaviors such as self-induced vomiting or misuse of laxatives to influence body weight or shape.

24 Bulimia Nervosa

24.0.0.1 *Take a Moment: What Do You Think Bulimia Nervosa Is?*

Think about what comes to mind when you hear this diagnosis. What do you imagine about eating patterns, guilt, or secrecy? How does it differ from anorexia nervosa? What misconceptions might people have about why this disorder develops?

24.1 What Is Bulimia Nervosa?

Bulimia Nervosa is an eating disorder characterized by recurrent binge eating followed by compensatory behaviors to prevent weight gain, such as vomiting, fasting, excessive exercise, or misuse of laxatives. These cycles occur regularly and are driven by feelings of loss of control, guilt, and distress.

24.2 What Does Bulimia Nervosa Look Like in Children?

In children and adolescents, bulimia may appear as secretive eating, disappearing after meals, heightened focus on body shape, or sudden changes in mood around food. Physical signs are often subtle, making behavioral and emotional clues especially important.

Binge eating episodes: Children may consume unusually large amounts of food rapidly.

- *Example: A child eats a full box of snacks in one sitting and feels unable to stop.*

Compensatory behaviors: Attempts to undo eating through vomiting, fasting, or excessive exercise.

- *Example: A teen goes for long, intense runs after large meals or tries to induce vomiting.*

Overconcern with body shape or weight: High self-worth tied to appearance.

- *Example: A child repeatedly asks if they look fat or checks mirrors excessively.*

24.3 How Do We Diagnose It?

Diagnosis requires identifying cycles of binge eating and compensatory behaviors, along with overemphasis on weight or shape, occurring at least once a week for three months. Symptoms must cause distress and cannot be explained by anorexia nervosa or another medical condition.

24.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Recurrent episodes of binge eating, defined by eating an unusually large amount of food in a short period and feeling a loss of control.

Criterion B: Recurrent inappropriate compensatory behaviors to prevent weight gain, such as vomiting, misuse of laxatives, fasting, or excessive exercise.

Criterion C: Binge eating and compensatory behaviors occur at least once a week for three months.

Criterion D: Self-evaluation is overly influenced by body shape and weight.

Criterion E: The disturbance does not occur exclusively during episodes of anorexia nervosa.

24.3.2 Specifiers

Bulimia Nervosa includes severity specifiers based on frequency of compensatory behaviors.

- **Mild:** 1–3 episodes per week

  - *Example: Vomiting or excessive exercise two times weekly.*

- **Moderate:** 4–7 episodes per week

  - *Example: Laxative use most days of the week.*

- **Severe:** 8–13 episodes per week

  - *Example: Daily binge and purge cycles.*

- **Extreme:** 14 or more episodes per week

  - *Example: Multiple binge-purge cycles every day.*

24.3.3 Assessment Tools Used in Diagnosis

Eating Disorder Examination (EDE) is a structured interview assessing eating behaviors, attitudes, and body image concerns.

Eating Disorder Inventory (EDI) measures psychological traits related to eating disorders.

Behavioral observations include monitoring food-related rituals, bathroom use after meals, and exercise patterns.

24.3.4 Differential Diagnosis

Clinicians must distinguish bulimia from anorexia nervosa, where weight is significantly low, whereas individuals with bulimia are typically within or above a normal range. Binge-eating disorder involves binge episodes without compensatory behaviors. Major depressive disorder can involve overeating, but without loss of control or purging. Borderline personality disorder may include impulsive eating episodes, but symptoms must meet full criteria for bulimia nervosa.

24.3.5 Comorbidities

Bulimia commonly co-occurs with anxiety disorders, depressive disorders, substance use disorders, and ADHD. Mood swings, impulsivity, and low self-esteem may overlap with these conditions. Medical complications such as electrolyte imbalance or gastrointestinal issues may also occur.

24.4 Contributing Factors

Bulimia results from biological, psychological, and environmental influences. Genetic vulnerabilities, temperament traits such as impulsivity, cultural pressures emphasizing thinness, family stress, dieting behaviors, and trauma exposure may all increase risk. Reinforcement cycles between bingeing and compensatory behaviors strengthen symptoms over time.

24.5 How Do We Treat Bulimia Nervosa?

Treatment typically combines therapy, nutritional rehabilitation, and family involvement.

Cognitive-Behavioral Therapy (CBT): Targets binge-purge cycles by teaching regular eating patterns, identifying triggers, and challenging distorted beliefs about shape and weight.

Family-Based Treatment: Engages caregivers in supporting structure around meals and monitoring compensatory behaviors.

Dialectical Behavior Therapy (DBT): Helps youth manage impulsivity and emotional dysregulation contributing to binge-purge cycles.

Medication: SSRIs may reduce binge frequency and improve mood symptoms.

Nutritional rehabilitation: Structured meal plans, supervised eating, and building tolerance for foods.

The Overall Goal Treatment aims to break the binge-purge cycle, restore healthy eating patterns, reduce body dissatisfaction, and support emotional stability.

24.6 What Is the Prognosis?

Medical complications may include menstrual irregularities, gastric problems such as reflux or stomach pain, and dental erosion from repeated exposure to stomach acid. Many adolescents recover with early, consistent treatment. Bulimia may become chronic if left untreated, but long-term outcomes improve significantly with family involvement, structured therapy, and monitoring of medical complications.

24.7 Prevalence & Statistics

According to DSM-5-TR, bulimia nervosa has a 1% lifetime prevalence among adolescents, with females being more commonly diagnosed than males.

24.8 Reflection

Think about the cycle of bingeing and compensatory behaviors.

1. What thoughts or emotions might lead a child to hide their eating behaviors?
2. How do cultural pressures around appearance influence children's eating patterns?

24.9 Discussion

1. How does bulimia differ from binge-eating disorder?
2. How can schools support students showing early warning signs?
3. What medical risks make early intervention essential?
4. How do emotions play a role in binge-purge cycles?
5. How might body image concerns develop differently across cultures?
6. What role does family communication play in recovery?

24.10 Key Terms

Anorexia Nervosa: An eating disorder characterized by restrictive intake leading to significantly low body weight, intense fear of gaining weight, and disturbance in self-perceived size.

Binge Eating: Eating an unusually large amount of food with a sense of loss of control.

Body Image: How one perceives and feels about their appearance.

Bulimia Nervosa: An eating disorder characterized by binge eating followed by compensatory behaviors.

CBT-E: A specialized form of cognitive-behavioral therapy for eating disorders.

Compensatory Behaviors: Actions taken to prevent weight gain after eating, such as vomiting or excessive exercise.

Dialectical Behavior Therapy: A therapy focused on managing emotions and impulsivity.

Eating Disorder Examination: A structured interview assessing eating-related thoughts and behaviors.

Eating Disorder Inventory: A questionnaire evaluating psychological traits linked to eating disorders.

Purging: Behaviors such as vomiting or laxative misuse intended to prevent weight gain.

25 Feedings Disorders: Pica, Rumination Disorder, ARFID

Take a Moment: What Do You Think Feeding Disorders Are?

Children who struggle with feeding issues are often misunderstood. People may assume these behaviors are simply picky eating or attention-seeking. But what does it really mean when a child repeatedly eats non-food items, regurgitates food, or avoids eating to the point of weight loss? How might these behaviors reflect deeper developmental, sensory, or physiological concerns?

25.1 What Are Feeding Disorders?

Feeding disorders in childhood are conditions in which eating behaviors deviate significantly from developmental expectations, resulting in health risks, nutritional deficiencies, or significant stress. Pica involves persistent eating of non-food substances. Rumination Disorder involves repeated regurgitation and re-chewing of food. ARFID involves avoidance of eating due to sensory issues, lack of interest, or fear of negative consequences, leading to significant nutritional or growth concerns.

25.2 What Do Feeding Disorders Look Like in Children?

Symptoms can vary widely across the three disorders. Children may eat chalk or dirt (Pica), repeatedly bring up and re-chew food without distress (Rumination Disorder), or avoid eating due to sensory sensitivities or fears (ARFID). These behaviors can lead to medical complications, social difficulties, and growth problems.

Nonfood ingestion (Pica): *Example: A 6-year-old routinely eats paper, chalk, or dirt despite being offered snacks.*

Regurgitation and re-chewing (Rumination Disorder): *Example: A child quietly regurgitates food during class and re-swallows it without nausea.*

Avoidance based on sensory sensitivity (ARFID): *Example: A child refuses all foods with specific textures, limiting intake to a few extremely bland foods.*

Fear-based avoidance of eating (ARFID): *Example: After choking once, a child avoids an increasing number of foods due to fear of choking.*

25.3 How Do We Diagnose These Disorders?

Diagnosis requires understanding a child's eating patterns, nutritional status, medical history, and developmental background. Clinicians distinguish these conditions from typical picky eating, cultural practices, medical conditions, and other mental health disorders. Persistent, impairing patterns that pose risk are necessary for diagnosis.

25.3.1 DSM-5-TR Diagnostic Criteria

25.3.2 Pica

Criterion A: Persistent eating of nonnutritive, nonfood substances for at least one month.

Criterion B: The behavior is inappropriate for developmental level.

Criterion C: The behavior is not part of a culturally supported practice.

Criterion D: If occurring in another mental disorder or medical condition, it is severe enough to warrant independent clinical attention.

Nonfood items: *Example: Dirt, clay, paper, hair, chalk, soap, or fabric.*

25.3.3 Rumination Disorder

Criterion A: Repeated regurgitation of food for at least one month.

Criterion B: Behavior not due to a gastrointestinal condition.

Criterion C: Not exclusively during anorexia, bulimia, binge-eating disorder, or ARFID.

Criterion D: If occurring with another disorder, behavior is severe enough to warrant separate attention.

Examples of rumination behaviors:

Regurgitation and re-swallowing: *Example: Food is brought back up effortlessly and re-chewed.*

Regurgitation and spitting out: *Example: Child spits out previously swallowed food multiple times per meal.*

25.3.4 ARFID

Criterion A: An eating or feeding disturbance (e.g., apparent lack of interest in eating; avoidance based on sensory characteristics; concern about aversive consequences) resulting in one or more of the following:

- Significant weight loss or failure to grow

- Significant nutritional deficiency

- Dependence on enteral feeding or supplements

- Marked interference with functioning

Criterion B: Not due to lack of food or culturally sanctioned practice.

Criterion C: Not occurring exclusively during anorexia or bulimia and without body image disturbance.

Criterion D: Not better explained by medical conditions or other mental disorders.

Common ARFID presentations:

Sensory-based avoidance: *Example: Child only eats foods with identical textures or colors.*

Fear-based avoidance: *Example: After vomiting, the child avoids entire food groups due to fear of vomiting again.*

Apparent lack of interest in food: *Example: Very limited appetite leading to inadequate intake.*

25.3.5 Assessment Tools Used in Diagnosis

Assessment typically includes clinical interviews, growth charts, medical evaluations, and behavioral observations.

Behavioral observations: Clinicians look for patterns such as texture avoidance, regurgitation patterns, or ingestion of nonfood items.

Food diaries: Parents record eating behaviors, sensory preferences, and instances of avoidance or ingestion.

Nutritional assessment: Evaluates vitamin deficiencies and growth delays.

Medical evaluation: Rules out gastrointestinal disorders, anemia, lead poisoning, or malabsorption.

Feeding assessments (OT/SLP): Identify sensory or motor feeding difficulties contributing to ARFID or rumination.

25.3.6 Differential Diagnosis

Feeding disorders must be differentiated from conditions such as autism spectrum disorder, intellectual developmental disorder, gastrointestinal disorders, cultural eating practices, and anorexia or bulimia, which involve body image concerns rather than sensory or fear-based avoidance. Pica must be distinguished from normal developmental mouthing in toddlers. Rumination must be differentiated from GERD. ARFID must be separated from typical picky eating.

25.3.7 Comorbidities

Pica frequently co-occurs with intellectual developmental disorder, autism spectrum disorder, and OCD-like behaviors. Rumination Disorder may co-occur with anxiety disorders, developmental delays, and GI symptoms unrelated to the cause. ARFID may co-occur with anxiety disorders, autism spectrum disorder, ADHD, and other feeding or sensory processing difficulties.

25.4 Contributing Factors

Various biological, developmental, and environmental factors contribute to risk. Nutritional deficiencies such as iron or zinc deficiency may increase risk for Pica. Developmental delays, stress, or neglect can also increase vulnerability. Sensory sensitivities, traumatic feeding experiences, or GI discomfort may contribute to ARFID or rumination.

- Nutritional deficiencies (e.g., iron, zinc)
- Developmental delays
- Sensory processing differences
- Anxiety or fear-based learning after choking or vomiting
- Environmental stressors or limited food availability

25.5 How Do We Treat Feeding Disorders?

Treatment is tailored to the specific disorder and underlying causes.

Behavioral feeding therapy: Intervention targeting sensory issues, food acceptance, and structured feeding.

Parent training: Teaches caregivers consistent feeding routines and strategies.

Nutritional supplementation: Used when deficiencies or growth concerns are present.

Medical treatment: Addresses GI issues, anemia, or other medical contributors.

Habit reversal or competing response training: Helps reduce rumination behaviors.

Exposure therapy: Helps children gradually face feared foods.

The Overall Goal: The aim is to ensure safe eating, adequate nutrition, developmental progress, and reduced stress around feeding while promoting flexible and healthy eating patterns.

25.6 What Is the Prognosis?

Prognosis varies. With early intervention, many children show significant improvement. Pica may persist if underlying developmental or environmental factors remain unaddressed. Rumination Disorder can resolve with behavioral treatment but may recur under stress. ARFID can improve with structured therapy.

25.7 Prevalence & Statistics

Prevalence varies. Pica is more common in children with developmental disabilities but can occur in typically developing children. Rumination Disorder is considered rare. ARFID is more common than previously recognized and can begin early in development.

25.8 Reflection

Think about what feeding behaviors you once considered simple pickiness.

1. How might you differentiate typical picky eating from a clinically significant feeding disorder?
2. What signs might suggest that a child's eating behaviors are impairing their health or daily functioning?

25.9 Discussion

1. Why might Pica occur more often in children with developmental delays?
2. Why is ARFID not considered an eating disorder about body image?
3. What challenges arise when diagnosing feeding disorders in very young children?
4. How can early medical complications influence feeding behavior?
5. In what ways might parents unintentionally reinforce avoidant eating behaviors?

6. How could schools support children with feeding disorders?

25.10 Key Terms

ARFID: An eating disturbance causing weight loss, nutritional deficiency, or dependence on supplements without body image concerns.

Pica: Persistent eating of nonfood, nonnutritive substances inappropriate for developmental level.

Regurgitation: Bringing previously swallowed food back into the mouth.

Rumination Disorder: Repeated regurgitation and re-chewing of food not due to a medical issue.

Sensory-Based Avoidance: Avoidance of foods due to texture, smell, or other sensory features.

Part VIII

Elimination Disorders

Elimination Disorders

Elimination disorders are conditions involving inappropriate urination or defecation that occur beyond the age when children are typically expected to have achieved toileting control. While occasional accidents are common in early childhood, elimination disorders reflect patterns that are persistent, developmentally unexpected, and distressing or impairing for the child and family. These behaviors are not due to medical conditions alone, nor are they simply signs of defiance or laziness—they often emerge from a combination of physiological, developmental, and emotional factors.

Children with elimination disorders may struggle with nighttime wetting, daytime accidents, or involuntary leakage of stool. These symptoms can lead to embarrassment, social withdrawal, family conflict, or avoidance of activities such as sleepovers. Because toileting is closely tied to developmental milestones, disruptions in this area may also signal underlying stress, anxiety, or developmental delays. A careful evaluation helps distinguish between behavioral patterns, medical contributors, and emotional factors that may be maintaining the difficulties.

Elimination Disorders (DSM-5-TR):

- Enuresis (Nocturnal, Diurnal, or Combined)
- Encopresis (With constipation and overflow incontinence; Without constipation and overflow incontinence)
- Other Specified Elimination Disorder
- Unspecified Elimination Disorder

26 Elimination Disorders

26.0.0.1 *Take a Moment: What Do You Think Elimination Disorders Are?*

Before diving into this chapter, pause and reflect on the terms **Enuresis** and **Encopresis**. What images, assumptions, or feelings come to mind? Do you think of accidents, behavior problems, or something else entirely? Elimination disorders are often misunderstood and sometimes stigmatized—even though they are developmental conditions, not intentional misbehavior. As you read, compare your assumptions with what science and clinical practice actually show.

26.1 What Are Elimination Disorders?

Elimination Disorders include two conditions—Enuresis and Encopresis—that involve difficulties with urine or stool elimination after the age at which continence is expected. These behaviors are not intentional and are not signs of defiance; instead, they typically arise from developmental, physiological, or psychosocial factors. Although these disorders are distinct, many children share similar underlying mechanisms such as delayed bodily awareness, physiological patterns that disrupt continence, stress-related disruptions, or toileting avoidance. Some children experience only urinary symptoms, others only stooling difficulties, and some experience both at different points in development.

Children with developmental conditions such as Intellectual Disability or Autism Spectrum Disorder may show delayed toileting skills or chronic accidents, but these symptoms are usually understood as part of their overall developmental profile unless they clearly exceed what would be expected for their level of functioning.

26.2 What Do Elimination Disorders Look Like in Children?

Elimination disorders present differently depending on whether urine or stool is involved, but both can lead to embarrassment, social withdrawal, or avoidance of activities like sleepovers or school bathroom use.

Enuresis (urinary accidents) often appears as nighttime bedwetting, daytime wetting during play or distraction, or a combination of both. Children may wake up soaked, be unaware they urinated during the day, or show distress or frustration when accidents occur.

Encopresis (stool accidents) typically involves stool leakage, soiling of underwear, or occasionally full bowel movements in clothing. Many cases stem from constipation, which leads to painful bowel movements, stool withholding, and overflow incontinence. Children may hide soiled clothes, avoid bathrooms, or appear unaware of leakage.

Across both disorders, children may seem confused about the accident, show shame, or attempt to cover up symptoms due to fear of punishment or ridicule.

26.3 How Do We Diagnose Elimination Disorders?

Diagnosis focuses on distinguishing developmentally expected accidents from clinically significant patterns. Clinicians gather information about the child's toileting behaviors, developmental history, medical conditions, diet, fluid intake, emotional stressors, and family patterns. Enuresis is diagnosed when urine accidents occur at least twice a week for three months (or cause distress/impairment) in a child at least 5 years old developmentally. Encopresis is diagnosed when stool is passed in inappropriate places at least once per month for at least three months in a child at least 4 years old developmentally. For Encopresis, determining whether constipation is present is essential, as most cases arise from a cycle of withholding and overflow.

Children with developmental disorders may have toileting delays, but elimination disorders are diagnosed only if symptoms clearly exceed expectations for the developmental level.

26.4 Contributing Factors

Elimination disorders are shaped by interacting genetic, physiological, developmental, cultural, and psychosocial factors. Genetics play a significant role in enuresis: children with one parent who experienced nocturnal enuresis are far more likely to develop it themselves, and this likelihood increases when both parents were affected, with paternal history showing especially strong associations. Physiological contributors include delayed maturation of bladder capacity, reduced nighttime antidiuretic hormone production, difficulty waking to bladder signals, or the gastrointestinal effects of chronic constipation.

In Encopresis, constipation is the most common underlying factor. Painful bowel movements prompt withholding, which leads to colon stretching, reduced sensation, and overflow leakage. Low fiber intake, inadequate hydration, and irregular toileting routines can worsen constipation. Psychosocial stressors—including family conflict, academic pressures, and major life transitions—can exacerbate symptoms of both enuresis and encopresis. Prevalence varies

across cultural and socioeconomic groups, with higher rates observed in marginalized communities such as Turkish and Moroccan immigrant groups in the Netherlands, likely reflecting differences in stress exposure, healthcare access, and environmental demands.

26.5 How Do We Treat Elimination Disorders?

Treatment targets the underlying physiological mechanisms while also reducing shame and building consistent toileting habits.

For **Enuresis**, effective interventions include structured routines such as scheduled bathroom breaks, limiting evening fluid intake, and using bedwetting alarms to strengthen the child's ability to wake in response to bladder sensations. Positive reinforcement helps children stay motivated, while medications such as desmopressin can temporarily reduce nighttime urine production.

For Encopresis, treatment usually begins with a medical "clean-out" to remove impacted stool, followed by maintenance with stool softeners. Dietary changes, increased hydration, and scheduled toilet sits (especially after meals) help reestablish regular bowel movements. Reinforcement focuses on effort rather than cleanliness, reducing shame and promoting cooperation. Children with neurodevelopmental conditions may require additional adaptations for sensory or behavioral needs.

The Overall Goal: of treatment across both disorders is to restore healthy elimination patterns, reduce distress, and support the child's confidence and participation in daily activities.

26.6 What Is the Prognosis?

Both disorders have favorable outcomes with proper treatment. Enuresis typically decreases with age as bladder capacity and neurological control improve. Encopresis can take longer to resolve due to colon stretching from chronic constipation, but most children improve significantly with consistent medical and behavioral treatment. Early intervention reduces the likelihood of long-term difficulties or social withdrawal.

26.7 Prevalence & Statistics

Elimination disorders are relatively common in childhood. Enuresis affects approximately 5–10% of 5-year-olds, 3–5% of 10-year-olds, and about 1% of adolescents. Nocturnal enuresis is more common in boys, while daytime wetting is somewhat more common in girls. Encopresis occurs in roughly 1% of 5-year-olds and is also more frequent in boys. Both disorders

show higher prevalence in communities experiencing socioeconomic disadvantage or marginalization.

26.8 Reflection

Think back to your assumptions about elimination disorders. How might a child's embarrassment, fears, or attempts to hide accidents shape their daily experiences?

1. What emotional impact might repeated accidents have on a child?
2. How might family stress or routines influence toileting patterns?
3. In what ways could assumptions about "laziness" or "defiance" lead to misunderstandings?

26.9 Discussion

1. Why is early, supportive intervention important for both enuresis and encopresis?
2. How can clinicians differentiate between developmentally typical accidents and clinical disorders?
3. What barriers might families face in implementing toileting treatment plans?
4. How might cultural expectations influence when and how caregivers seek help?
5. What school-based supports could reduce stigma and promote success?
6. Why is constipation central in understanding many cases of encopresis?
7. How might co-occurring developmental conditions complicate assessment?

27 Key Terms

Enuresis: Repeated voiding of urine into bed or clothes (daytime, nighttime, or both) in a child at least 5 years old developmentally. Must occur at least twice weekly for three months or cause significant distress or impairment.

Encopresis: Repeated passage of stool into inappropriate places (e.g., clothing, floor) in a child at least 4 years old developmentally. May occur with or without constipation and overflow incontinence.

Toileting Withholding: Behavioral avoidance of stooling due to fear, anxiety, or prior painful bowel movements, often leading to constipation.

Nocturnal Enuresis: Wetting that occurs only during sleep.

Diurnal Enuresis: Wetting that occurs during waking hours.

Part IX

Schizophrenia Spectrum and Other Psychotic Disorders

Schizophrenia Spectrum and Other Psychotic Disorders

Schizophrenia spectrum and other psychotic disorders are a group of conditions marked by disruptions in thinking, perception, behavior, and emotional expression. These disorders involve symptoms such as hallucinations, delusions, disorganized thinking, or markedly abnormal motor behavior. Although they are far less common in childhood than in adulthood, early-onset cases do occur, and when symptoms emerge in children or adolescents, they often look different from the adult presentation and may be harder to recognize at first.

In younger individuals, early symptoms can include social withdrawal, unusual fears, odd or magical thinking, decline in academic performance, or difficulties with attention and organization. Psychotic symptoms—such as hearing voices others cannot hear or strongly believing things that are not grounded in reality—may develop gradually. These experiences are not simply imagination or childhood fantasy; they reflect changes in how the brain interprets and processes information. Because children's speech, cognition, and play are still developing, clinicians must carefully distinguish psychotic symptoms from developmentally typical behaviors, trauma responses, or mood disorders.

Early identification and treatment are critical because psychotic disorders can significantly affect learning, relationships, and long-term functioning. With appropriate intervention, including therapy, family support, and in many cases medication, children and adolescents can experience meaningful improvement.

Schizophrenia Spectrum and Other Psychotic Disorders (DSM-5-TR):

- Schizotypal (Personality) Disorder
- Delusional Disorder
- Brief Psychotic Disorder
- Schizophreniform Disorder
- Schizophrenia
- Schizoaffective Disorder
- Substance/Medication-Induced Psychotic Disorder
- Psychotic Disorder Due to Another Medical Condition
- Catatonia (Associated With Another Mental Disorder, Due to Another Medical Condition, or Unspecified)
- Other Specified Schizophrenia Spectrum and Other Psychotic Disorder
- Unspecified Schizophrenia Spectrum and Other Psychotic Disorder

28 Schizophrenia (Childhood-Onset)

28.0.0.1 *Take a Moment: What Do You Think Schizophrenia Is?*

Before learning about childhood-onset schizophrenia, consider what comes to mind when you imagine this disorder. Do you picture only adults experiencing hallucinations? What assumptions might people mistakenly make about children who hear voices or appear extremely disorganized? How might childhood symptoms differ from what we typically expect in adults?

28.1 What Is Schizophrenia?

Schizophrenia is a serious mental disorder characterized by disruptions in thinking, perception, emotions, and behavior. Childhood-onset schizophrenia (COS) refers to schizophrenia that begins before age 18. It follows the same diagnostic criteria as adult schizophrenia but often presents with more severe developmental impairment and a more gradual onset.

28.2 What Does Schizophrenia Look Like in Children?

Childhood-onset schizophrenia is rare, but when it appears, children tend to show significant disturbances in how they think, feel, and interpret the world. Symptoms often develop gradually and may initially resemble developmental, mood, or behavioral disorders.

Hallucinations: Hearing voices others do not hear or seeing things that are not present.

- *Example: A 10-year-old reports hearing a voice telling them they are in danger, even when alone in their room.*

Delusions: Strongly held false beliefs that do not match reality.

- *Example: A child believes classmates can read their thoughts or that the TV is sending them secret messages.*

Disorganized thinking or speech: Thoughts may jump from one idea to another, making speech difficult to follow.

- *Example: During conversation, a child suddenly shifts topics without logical connection, confusing listeners.*

Disorganized or catatonic behavior: Behavior may appear unpredictable, odd, or at times frozen or slowed.

- *Example: A child may pace for long periods, suddenly stop moving, or repeatedly perform unusual movements.*

Negative symptoms: Reductions in emotional expression, speech, or motivation.

28.3 How Do We Diagnose It?

Diagnosing childhood-onset schizophrenia requires careful evaluation of symptoms, developmental history, medical conditions, environmental factors, and functional impairment. Symptoms must meet DSM criteria and last long enough to rule out temporary or stress-related psychosis.

28.3.1 DSM-5-TR Diagnostic Criteria

Criterion A: Two or more of the following symptoms, each present for a significant portion of time during a one-month period. At least one must be hallucinations, delusions, or disorganized speech.

- **Delusions**
- **Hallucinations**
- **Disorganized speech**
- **Grossly disorganized or catatonic behavior**
- **Negative symptoms**

Criterion B: Significant impairment in functioning at school, with peers, or at home compared to the child's previous level.

Criterion C: Continuous signs of disturbance persist for at least six months, including at least one month of symptoms that meet Criterion A.

Criterion D: The disturbance cannot be better explained by schizoaffective disorder, depressive or bipolar disorder with psychotic features.

Criterion E: Symptoms are not attributable to a substance or medical condition.

Criterion F: If the child has a history of autism spectrum disorder or a communication disorder, schizophrenia is diagnosed only if prominent delusions or hallucinations are present for at least one month.

28.3.2 Assessment Tools Used in Diagnosis

Clinicians typically use several tools to assess childhood psychosis:

K-SADS (Kiddie Schedule for Affective Disorders and Schizophrenia): A structured clinical interview that evaluates psychiatric symptoms across disorders, including psychosis.

BPRS-C (Brief Psychiatric Rating Scale for Children): Rates symptom severity such as hallucinations, unusual thought content, and emotional withdrawal.

Behavioral observations: Clinicians observe speech clarity, emotional expression, motor behavior, and the child's ability to stay organized during conversation or play.

Medical testing: Neuroimaging or laboratory tests may be conducted to rule out neurological or medical causes of psychosis.

28.3.3 Differential Diagnosis

Childhood-onset schizophrenia must be distinguished from several other disorders. Autism spectrum disorder may include unusual speech, social withdrawal, or sensory experiences, but does not typically involve persistent hallucinations or complex delusions. Major depressive disorder or bipolar disorder with psychotic features include mood episodes that dominate the clinical picture. PTSD may involve trauma-related intrusive experiences that appear psychotic but are linked to traumatic memories. OCD can involve intrusive thoughts that feel foreign but are not true delusions. Substance-induced psychotic disorder is considered when ingestion of medications or illicit substances precedes symptoms. Medical conditions such as epilepsy or metabolic disorders must also be ruled out.

28.3.4 Comorbidities

Children with schizophrenia may also experience cognitive delays, learning difficulties, or ADHD. Anxiety disorders and depressive symptoms may develop due to distress and functional impairment. Some children show developmental abnormalities or social difficulties even before psychotic symptoms emerge. Autism spectrum disorder can co-occur, especially when early developmental concerns were present.

28.4 Contributing Factors

Research suggests that schizophrenia arises from a combination of genetic vulnerability and environmental stressors. Family history of schizophrenia or other psychotic disorders increases risk. Environmental factors such as prenatal complications, early developmental difficulties, or significant stress may contribute to symptom onset. Brain development differences and

neurochemical factors may also play a role. The DSM also notes that members of marginalized groups show higher rates of schizophrenia diagnoses, though it remains unclear whether this reflects increased exposure to adversity, systemic bias, or other unidentified factors.

28.5 How Do We Treat Schizophrenia?

Treatment typically requires long-term, multimodal intervention to reduce symptoms and support functioning.

Antipsychotic medication: Helps reduce hallucinations, delusions, and disorganized thinking.

Psychosocial interventions: Includes social skills training, cognitive-behavioral strategies, and supportive therapy to help children understand symptoms and improve daily functioning.

Family therapy: Supports caregivers in managing symptoms, improving communication, and reducing environmental stress.

School-based supports: Academic accommodations, psychoeducation, and structured routines help children maintain progress.

Case management: Coordinates services across home, school, and clinical settings.

The Overall Goal The aim of treatment is to reduce psychotic symptoms, improve functioning, enhance coping skills, and support developmental progress.

28.6 What Is the Prognosis?

Childhood-onset schizophrenia often has a more severe course than adult-onset cases, with significant functional impairment. Early and consistent treatment improves outcomes, and some children achieve partial remission. Many, however, continue to experience ongoing symptoms or developmental difficulties into adolescence and adulthood.

28.7 Prevalence & Statistics

According to the NIH, schizophrenia is rare before age 13, with childhood-onset schizophrenia occurring in approximately 1 in 40,000 children.

28.8 Reflection

Think back to your initial assumptions about schizophrenia. How might early symptoms be mistaken for other developmental or emotional difficulties?

1. What behaviors might caregivers or teachers misinterpret before psychotic symptoms become obvious?
2. How could subtle negative symptoms be confused with depression or social withdrawal?

28.9 Discussion

1. Why is childhood-onset schizophrenia more difficult to diagnose than adult schizophrenia?
2. How do hallucinations in children differ from imaginative play?
3. What school supports are most helpful for a child with psychosis?
4. How do negative symptoms impact daily functioning compared to hallucinations or delusions?
5. What ethical considerations arise when prescribing antipsychotic medication to children?

28.10 Key Terms

Antipsychotic medication: Medication used to reduce hallucinations, delusions, and disorganized thinking.

Childhood-onset schizophrenia: Schizophrenia with onset before age 13.

Delusions: Strongly held false beliefs that do not align with reality.

Flat affect: A reduction or absence of emotional expression, including limited facial expression, monotone voice, or diminished emotional responsiveness.

Hallucinations: Sensory perceptions, such as hearing voices, without an external stimulus.

Negative symptoms: Reductions in emotional expression, speech, or motivation.

Positive symptoms: Symptoms that reflect an excess or distortion of normal functioning, such as hallucinations, delusions, or disorganized speech.

Psychosis: A loss of contact with reality involving hallucinations or delusions.

Schizophrenia: A disorder involving disturbances in thinking, perception, emotions, and behavior.