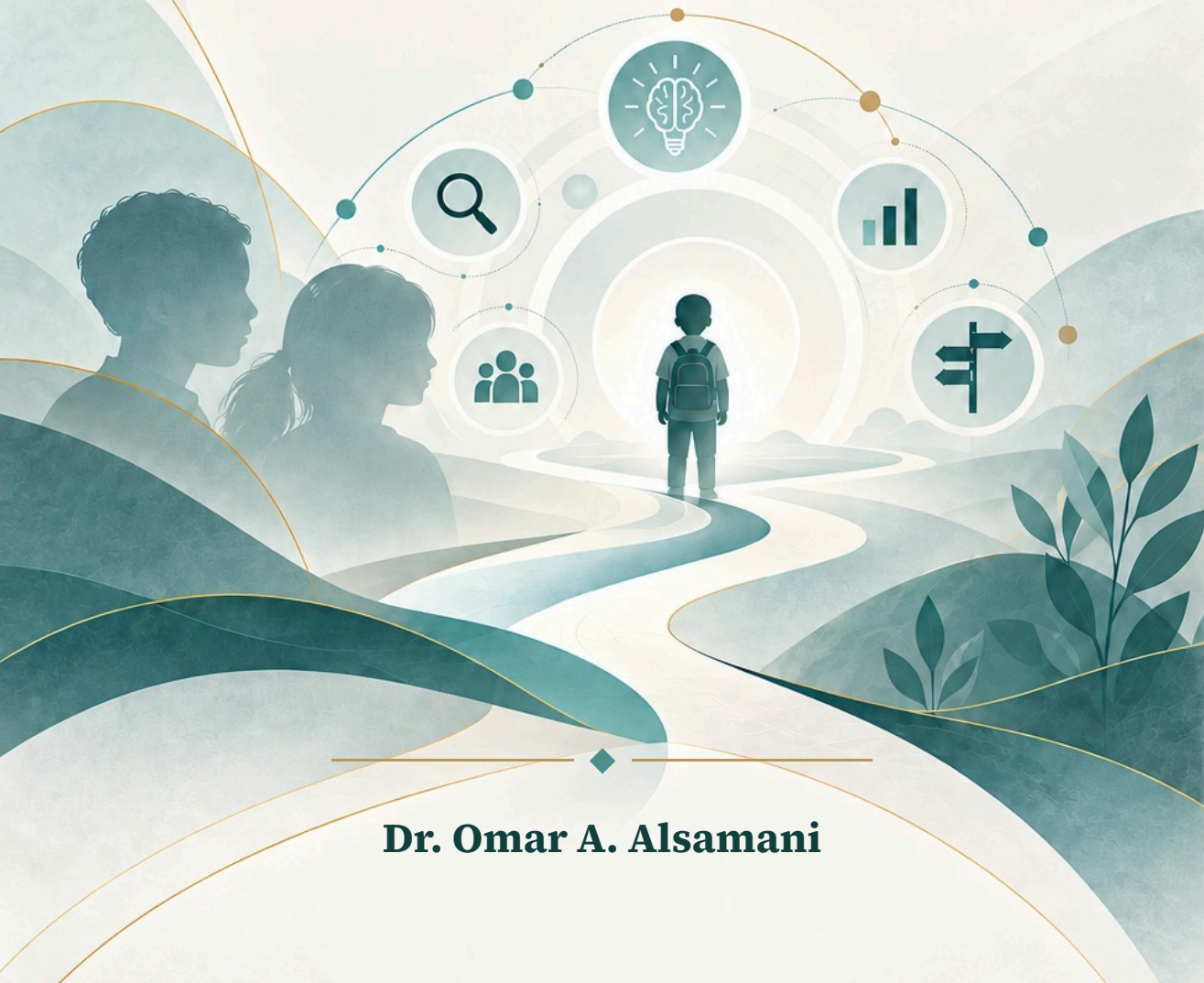


Diagnosis and Identification of Exceptional Learners

Learners with disabilities, the gifted
and the twice-exceptional



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Chapter 10

10 **Attention-deficit/hyperactivity disorder and behavioral and emotional disorders**

Restlessness, distraction, anger and sadness come and go in every child's life; the essential question is when they reach the threshold of a disorder. This chapter covers categories in which hasty judgments are common in two opposite directions: an active child who is misdiagnosed, and a quiet adolescent girl who suffers in silence while no one notices.

Two scenes in a single day

In second grade, Faisal cannot stay in his seat for more than a few minutes. He blurts out answers before the teacher has finished the question, takes his classmates' pens without asking, and forgets his notebook almost every day. His teacher says, “He never settles down.”

In sixth grade, Haya causes no trouble at all. She sits quietly, yet she misses half of what is said, leaves her assignments unfinished, and her grades have been slipping since the start of the year. Her teacher says, “Quiet and polite, but she drifts off a lot.”

Which of the two students is in greater need of assessment? Perhaps both. Faisal, however, is the more likely to be referred, because his behavior disrupts the class, while Haya may be left waiting for a long time. And what each of them is going through may stem from something quite different from what appears on the surface. We return to them in the first and second cases, and then turn to two more: a first grader and a girl in middle school.

Chapter objectives

After studying this chapter, the reader should be able to:

- 1 Match a student's data against the five criteria for attention-deficit/hyperactivity disorder, specify the presentation and the severity level, and name one difference between the DSM and the ICD.
- 2 Explain, with evidence, how the relative age effect and the quiet presentation can lead to misdiagnosis or to being overlooked, and propose a school procedure that limits each.
- 3 Classify a given student's problems as externalizing or internalizing, and distinguish among the abbreviated criteria for oppositional defiant disorder, conduct disorder, disruptive mood dysregulation disorder, anxiety, depression and posttraumatic stress disorder.
- 4 Apply the definition of the emotional disturbance category in US law, and its counterpart in Saudi regulations, to a given case, and critique the exclusion of “social maladjustment.”

- 5 Select a suitable screening tool, rating scale and sources of information for a given student, interpret the resulting T-scores and the discrepancies among raters, and explain the limits of computerized tests.
- 6 Identify, in a given case, the causes that must be ruled out before diagnosis and where each fits in the decision pathway.
- 7 Judge whether the evidence in a new case is sufficient to warrant a judgment, and justify that judgment criterion by criterion.

Introduction

Restlessness, distraction, anger and sadness are a familiar part of every child's life, and the line between what is expected at a given age and what rises to the level of a disorder is not always clear. This is why hasty judgments are so common in these categories, and in two opposite directions: an active child, or one younger than his classmates, is misdiagnosed because his behavior draws attention, while a quiet girl who is struggling goes unnoticed because she causes no disruption, much as the two scenes at the opening of the chapter illustrate. The matter is complicated further by the fact that the clinical categories of the medical manuals do not map onto the educational category, and that clinical diagnosis and eligibility decisions rest with two bodies that hold different authority.

We begin the chapter with attention-deficit/hyperactivity disorder (Section 10.1), then present its diagnostic criteria, presentations and specifiers (Section 10.2), and ask who is misdiagnosed and who is overlooked (Section 10.3). We then take up the clinical pictures of behavioral and emotional disorders (Section 10.4), the educational category of emotional disturbance (Section 10.5), the signs that warrant attention (Section 10.6), the decision pathway and universal behavior screening (Section 10.7), and instrument profiles (Section 10.8). We then apply all of this to four cases (Section 10.9), set out differential diagnosis and co-occurrence (Section 10.10), and close with the Saudi and Arab context (Section 10.11).

10.1

Attention-deficit/hyperactivity disorder

Attention-deficit/hyperactivity disorder (**Attention-Deficit/Hyperactivity Disorder, ADHD**) is a neurodevelopmental disorder characterized by a persistent pattern of inattention, hyperactivity-impulsivity, or both, to a degree that is inconsistent with the child's developmental level and that interferes with functioning in more than one setting.

A large worldwide review put its prevalence among children and adolescents at about 5% (Polanczyk et al., 2007). A later meta-analysis, pooling studies from many countries, estimated the prevalence of mental disorders overall in these age groups at about 13.4%: anxiety disorders at about 6.5%, disruptive behavior disorders at about 5.7%, attention-deficit/hyperactivity disorder at about 3.4%, and depressive disorders at about 2.6% (Polanczyk et al., 2015). In Saudi Arabia, a meta-analysis of fourteen Saudi studies arrived at a pooled prevalence for the disorder of 12.4%, with a wide confidence interval running from 5.4% to 26% (Aljadani et al., 2023). The width of this interval means that the pooled studies differ considerably from one another. The figure should therefore be read as a rough general estimate, and the gap between it and the global estimates does not justify concluding that the disorder is more prevalent in Saudi Arabia, at least not before differences in samples, instruments and criteria across the studies have been taken into account.

To understand this disorder, it helps to remember that attention is a set of related abilities: focusing on one thing while ignoring others, sustaining that focus long enough, shifting between tasks, and holding back the first response long enough to think. These abilities are tied to what are called **executive functions** (**Executive functions**), the capacities that regulate behavior and direct it toward a goal: planning, organization, working memory and self-control.

🔗 Common misconceptions

- **“If he can focus on video games for hours, he doesn't have an attention problem.”** The problem is not the ability to focus as such, but directing it where it is needed. Fast-paced, stimulating activities capture attention automatically; it is the dull task that demands effort that proves difficult. The DSM states that signs may be minimal or absent when the child is receiving frequent rewards for appropriate behavior, is under close supervision, is in a novel setting, or is engaged in an especially interesting activity. The disappearance of the behavior during a favorite activity therefore does not rule out the disorder.
- **“It's caused by bad parenting.”** This is a neurodevelopmental disorder with a strong genetic component. How the child is handled at home affects the severity of the accompanying problems, but it does not cause the disorder.
- **“Girls don't get it.”** Boys are diagnosed more often, but the real difference is smaller than it appears, because girls more often show the quiet, inattentive presentation that does not attract notice.

10.2 Diagnostic criteria and specifiers

The Diagnostic and Statistical Manual of Mental Disorders, fifth edition, text revision (**DSM-5-TR**), sets out two lists of nine symptoms each and requires five criteria to be met together (American Psychiatric Association, 2022):

All five criteria must be met

(A1) Inattention

At least six symptoms, for at least six months

- 1** Fails to attend to details and makes careless mistakes
- 2** Has difficulty sustaining attention in tasks or play
- 3** Seems not to listen when spoken to directly
- 4** Does not follow through on instructions and fails to finish assignments
- 5** Has difficulty organizing tasks and activities
- 6** Avoids tasks that require sustained mental effort
- 7** Loses things necessary for tasks
- 8** Is easily distracted by external stimuli
- 9** Is often forgetful in daily activities

(A2) Hyperactivity-impulsivity

At least six symptoms, for at least six months

- 1** Fidgets with hands or feet or squirms in seat
- 2** Leaves seat in situations where remaining seated is expected
- 3** Runs about or climbs in inappropriate situations
- 4** Is unable to play quietly
- 5** Is constantly on the go, as if driven by a motor
- 6** Talks excessively
- 7** Blurts out answers before the question is finished
- 8** Has difficulty waiting his or her turn
- 9** Interrupts or intrudes on others' activities

(B) Before age 12

Several inattentive or hyperactive-impulsive symptoms were present before age twelve.

(C) Two or more settings

Several symptoms are present in at least two settings, such as home and school, with friends or relatives, or in other activities.

(D) Impact on functioning

Clear evidence that the symptoms interfere with, or reduce the quality of, social or academic functioning.

(E) Exclusion

The symptoms do not occur exclusively during the course of schizophrenia or another psychotic disorder, and are not better explained by another mental disorder, such as a mood, anxiety, dissociative or personality disorder, or by substance intoxication or withdrawal.

Figure 10.1: DSM-5-TR criteria for attention-deficit/hyperactivity disorder, in abbreviated form. Five symptoms rather than six suffice for those aged 17 and older. The symptoms must be inconsistent with developmental level, and they are not counted if they are solely a manifestation of oppositional behavior, defiance, hostility or failure to understand the task. Note that a learning disability is treated as a differential or co-occurring diagnosis, outside the exclusion criterion (see 10.10), and that autism spectrum disorder has no longer been an exclusion since the fifth edition of the manual, so the two diagnoses may be given together.

Note criterion (C) in particular: **several symptoms** must be present in **at least two settings**. A child who is very active in only one class, or with only one teacher, calls for questions about that class or that teacher before questions about the child. This is why diagnosis draws on information from both the family and the school. The criterion does not, however, require the full symptom count in every setting: six symptoms at school and three at home may satisfy it. The question for the second setting is whether several genuine symptoms appear there and whether they have an impact; reaching six is not required.

The three presentations

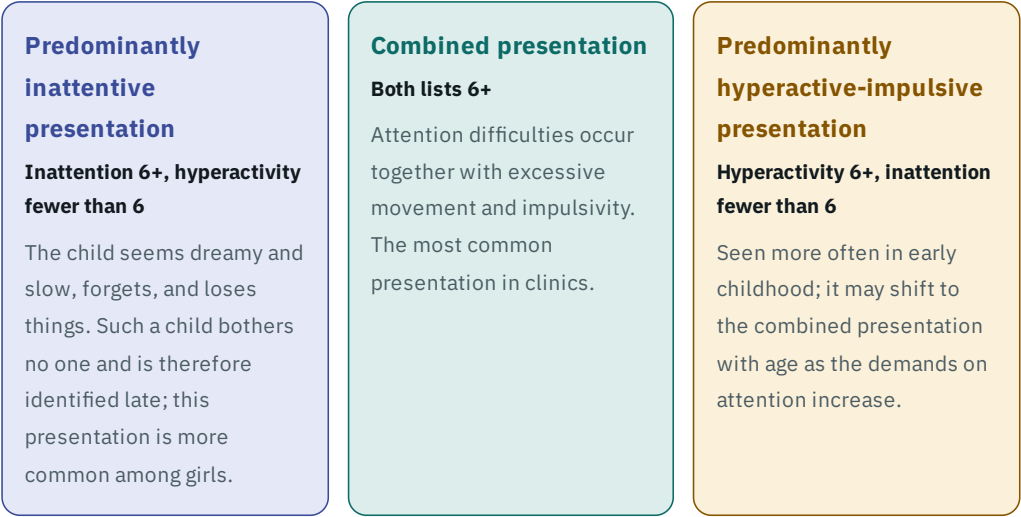


Figure 10.2: The three presentations. The presentation is specified on the basis of the past six months; it describes the current picture and may change with development.

Severity and other specifiers

The manual supplements the presentation with a specification of current severity, and it provides labels for cases that do not fit the full picture:

Table 10.1: Severity levels and other specifiers for attention-deficit/hyperactivity disorder in the DSM.

Specifier	When it is used
Mild	Few, if any, symptoms in excess of those required for the diagnosis, resulting in no more than minor impairment in social or academic functioning.
Average	Symptoms or functional impairment between mild and severe.
Severe	Many symptoms in excess of those required, or several symptoms that are particularly severe, or marked impairment in social or academic functioning.
In partial remission	Full criteria were previously met; fewer than the full criteria have been met for the past six months, while symptoms still result in impaired functioning.
Other specified ADHD	Symptoms cause clinically significant distress or impairment without meeting the full criteria, and the clinician states the reason, for example, that the inattentive symptoms fall short of the required number.
Unspecified ADHD	The same picture, but the clinician does not state the reason, or there is insufficient information for a more specific diagnosis, as in some emergency visits.

These labels matter in practice when a report is written. “Combined presentation, moderate” tells the teacher and the family far more than the word “hyperactivity,” and it allows comparison at reevaluation. “Other

specified” guards against two things: a student being denied support because the symptom count fell one short, and a student being given a full diagnosis the evidence does not support.

Comparison with ICD-11

The International Classification of Diseases, eleventh revision (**ICD-11**), describes the disorder by the same core features: a persistent pattern of inattention or hyperactivity-impulsivity, lasting at least six months, emerging during the developmental period, exceeding what is expected for age and level of intellectual functioning, appearing in more than one situation, and interfering with functioning. It also has presentations that parallel those of the DSM. The clearest difference is that it describes the manifestations and leaves the judgment of their sufficiency to the clinician, **without a fixed number of symptoms**. Among the disruptive behavior categories, the ICD-11 has no separate category corresponding to “disruptive mood dysregulation disorder” (10.4); instead, it adds to oppositional defiant disorder a specifier, “with chronic irritability-anger.” It names conduct disorder “conduct-dissocial disorder,” and applies the specifier “with limited prosocial emotions” both to this disorder and to oppositional defiant disorder (World Health Organization, 2024). A teacher may thus read two reports on the same student that use two different labels; the difference lies in the manual used, not in the student.

10.3

Who is misdiagnosed and who is overlooked?**The relative age effect in the classroom**

A single class may hold children whose oldest and youngest members are separated by almost a full year. At age six, a whole year is a large difference in the ability to sit still, pay attention and exercise self-control. When a teacher compares a child with his classmates, the immaturity of the youngest may look like a disorder. This is known as the **relative age effect (Relative age effect)**.

Layton and colleagues studied more than 400,000 American children in states where children enter kindergarten if they turn five before September 1. They found that children born in August, the youngest in their class, were diagnosed with the disorder at a clearly higher rate than those born in September, the oldest in their class (Layton et al., 2018):

Born in August, youngest in class

85.1

Born in September, oldest in class

63.6

Figure 10.3: Rate of attention-deficit/hyperactivity disorder diagnosis per 10,000 children by birth month, in states where September 1 is the school-entry cutoff date, from Layton and colleagues (Layton et al., 2018). The difference did not appear in states that use other cutoff dates.

The phenomenon recurs outside the United States. In Canada, Morrow and colleagues followed nearly one million children aged six to twelve in the province of British Columbia, where the cutoff falls at the end of December. Boys born in December, the youngest in their class, were about 30% more likely to be diagnosed than those born in January, and girls born in December were about 70% more likely (Morrow et al., 2012). These are two observational

studies: they establish that the likelihood of diagnosis is linked to relative age, but they do not establish that every additional case is a misdiagnosis. They do, however, make it likely that immaturity is sometimes read as disorder.

In Saudi Arabia, a child's age for admission to first grade is calculated on the first day of the school year: the minimum is six years, and a child up to ninety days younger may be admitted. The regulations for 1448 AH required that these younger children have completed a full year of kindergarten (Ministry of Education, 2025 [Arabic]; Sabq, 2026 [Arabic]). A single first-grade class may thus include one child who turns six only months after school begins and another who is nearly seven, a gap of almost a year, which may widen if a child enrolled late or repeated a grade. At the time of writing we found no published Saudi study of the relative age effect in diagnoses of the disorder, but there is no reason to assume that children here are immune to it.

The practical lesson for the teacher: before referring a child for restlessness and inattention, look at his date of birth, and compare him with the classmates closest to him in age rather than with the whole class.

Girls, the quiet presentation and adolescents

Many girls, by contrast, are overlooked, and with them boys with the predominantly inattentive presentation. Teachers tend to refer the students who disrupt the class, and a girl whose mind wanders quietly disturbs no one. Her difficulty may not become clearly visible until middle or high school, when the volume of coursework and the need for self-organization increase; her grades fall, and everyone assumes she has grown careless. A difficulty that surfaces late does not negate criterion (B), provided that several symptoms were present before age twelve, even if no one noticed them. The evaluator therefore extends the inquiry to elementary school records and the observations of her teachers there, alongside the present.

The same holds, even more clearly, for emotional problems. Anxiety and depression increase with the onset of adolescence and show up as absences, physical complaints, falling grades and withdrawal from friends, signs that are easily read as laziness or as “a phase that will pass.” We will see this in the case of Lamya (10.9).

10.4 Behavioral and emotional disorders: clinical pictures

This category covers many conditions that share one feature: the student's behavior or emotions interfere with learning and relationships to a clear and persistent degree. It helps to divide the problems into two kinds: externalizing problems (**Externalizing**) and internalizing problems (**Internalizing**):

Externalizing problems

Directed at others and the environment, and visible to everyone

- Aggression and fighting
- Anger, defiance and refusal to follow instructions, as in oppositional defiant disorder
- Rule-breaking and harming others, as in conduct disorder
- Severe, recurrent temper outbursts, as in disruptive mood dysregulation disorder
- Impulsivity and hyperactivity

Internalizing problems

Directed inward, and seen only by those who pay attention

- Excessive worry and fears
- Withdrawal and silence, including selective mutism
- Persistent sadness and loss of interest, which in children and adolescents may appear as irritability
- Recurrent physical complaints with no medical cause, such as stomachaches on school-day mornings
- Effects of trauma, such as avoiding reminders of the event and hypervigilance

Figure 10.4: Externalizing and internalizing problems. The former are often referred because they disturb others; the latter are often overlooked because they disturb no one but the student. Both kinds may occur in the same student.

Teachers are not expected to diagnose these disorders, but knowing their abbreviated criteria helps in two ways: it enables the teacher to describe what he or she sees with a precision useful to the specialist, and it makes clear that a single behavior may stem from quite different disorders. A student who refuses to do homework may be defiant, anxious about failing, depressed and without interest in anything, or simply unsure what is being asked. Table 10.2 summarizes the main disorders as the DSM presents them.

Table 10.2: Abbreviated criteria for the main behavioral and emotional disorders of childhood and adolescence in the DSM (adapted and abridged).

Disorder	Core picture	Duration and count	Specific to children and adolescents
Oppositional defiant disorder	A pattern of angry/irritable mood, argumentative/defiant behavior, or vindictiveness, in three groups comprising eight symptoms	At least four symptoms, for six months, with at least one individual who is not a sibling	Under age five: on most days; age five and older: at least once a week. Severity depends on the number of settings: mild in one setting, moderate in two, and severe in three or more

Disorder	Core picture	Duration and count	Specific to children and adolescents
Conduct disorder	A repetitive and persistent pattern of violating the rights of others or major age-appropriate societal norms, in four groups: aggression toward people and animals, destruction of property, deceitfulness or theft, and serious violations of rules	At least three of fifteen behaviors in the past twelve months, with at least one in the past six months	A childhood-onset type (at least one symptom before age ten) and an adolescent-onset type. The specifier with limited prosocial emotions (With limited prosocial emotions): at least two of four traits, over twelve months, across more than one relationship and setting: lack of remorse or guilt, callousness and lack of empathy, unconcern about performance, and shallow affect

Disorder	Core picture	Duration and count	Specific to children and adolescents
Disruptive mood dysregulation disorder (Disruptive mood dysregulation disorder, DMDD)	Severe, recurrent temper outbursts, verbal or behavioral, out of proportion to the situation and inconsistent with developmental level, with irritable or angry mood most of the day between outbursts, observable by others	Three outbursts a week on average, for twelve months, with no symptom-free period of three months, in two of three settings and severe in at least one	Not diagnosed for the first time before age six or after age eighteen, with onset before age ten. It is not given together with oppositional defiant disorder; if the criteria for both are met, only this diagnosis is given
Anxiety disorders	Excessive fear or anxiety out of keeping with developmental level, with avoidance and an impact on functioning. The most common at school are separation anxiety, generalized anxiety, social anxiety, specific phobia and selective mutism	Separation anxiety: at least four weeks in children and adolescents; generalized and social anxiety: typically six months; selective mutism: at least one month, not limited to the first month of school	In generalized anxiety, one physical or associated symptom rather than three suffices in children. In social anxiety, the anxiety must occur in peer settings, not only with adults, and the child may express it by crying, tantrums, freezing, clinging or not speaking

Disorder	Core picture	Duration and count	Specific to children and adolescents
Major depressive disorder	At least five of nine symptoms, including depressed mood or loss of interest or pleasure, representing a change from previous functioning	At least two weeks	In children and adolescents, mood may be irritable rather than sad, and weight loss may appear as failure to make expected weight gains. In persistent depressive disorder, one year suffices for them rather than the two years required for adults
Posttraumatic stress disorder (Posttraumatic stress disorder, PTSD)	After exposure to a traumatic event: intrusive re-experiencing of the event, avoidance of reminders, negative changes in thoughts and mood, and heightened arousal and reactivity	More than one month	Re-experiencing may appear as repetitive play in which themes of the event recur, and as frightening dreams without recognizable content. Children aged six and younger have separate criteria that rely less on language

Readers will notice that irritability recurs in more than one row of the table: in oppositional defiant disorder, in disruptive mood dysregulation disorder and in adolescent depression, and it may also accompany anxiety and trauma. Describing a student as “short-tempered” therefore calls for detail: when the student gets angry, how often, what the student is like between outbursts, when this began, and whether it represents a change from before. These very questions are what distinguish the disorders in the table from one another.

 When the matter cannot wait for assessment

If a student expresses, in speech, writing or drawing, a wish to harm himself or herself or to end his or her life, shows signs of injury, or discloses having been harmed, these are not data to be added to the assessment file. They are a situation that calls for immediate action under school procedures: informing the school counselor and the school principal the same day, not leaving the student alone, and involving the family and the competent authority as the procedures require. Completing the assessment comes afterward.

10.5

The educational category: emotional disturbance

The disorders in Table 10.2 are clinical diagnoses. The education system, however, asks a different question: does this student need special education services because of his or her behavior or emotions? For this reason, education systems often group these conditions in a broad educational category with its own definition. Under the US Individuals with Disabilities Education Act (**IDEA**), reauthorized in 2004 as the Individuals with Disabilities Education Improvement Act, a student qualifies for services under the category of **emotional disturbance (Emotional disturbance)** if he or she exhibits one or more of the following five characteristics over a long period of time and to a

marked degree, adversely affecting educational performance (Individuals with Disabilities Education Improvement Act, 2004; U.S. Department of Education, 2006, 34 CFR §300.8(c)(4)):

1. An inability to learn that cannot be explained by intellectual, sensory or health factors.
2. An inability to build or maintain satisfactory relationships with peers and teachers.
3. Inappropriate types of behavior or feelings under normal circumstances.
4. A general pervasive mood of unhappiness or depression.
5. A tendency to develop physical symptoms or fears associated with personal or school problems.

The definition then adds two sentences that weigh heavily on the decision: **that the category includes schizophrenia**, and **that it does not apply to students who are “socially maladjusted” (Socially maladjusted) unless it is determined that they have an emotional disturbance** under the characteristics above, according to the US Code of Federal Regulations (34 CFR §300.8(c)(4)(ii)).

Note the three shared conditions: a long period of time, a marked degree, and an adverse effect on learning. A student who has gone through two difficult weeks after the death of a grandfather is not placed in this category, although he or she may need support. Note also that the educational category does not coincide with clinical diagnosis: a student may be diagnosed with anxiety without its effect on learning reaching the level that qualifies for the category, and a student may qualify for the category on the strength of clear, documented characteristics before any particular clinical diagnosis has been completed.

▮ For the specialist: the debate over excluding “social maladjustment”

US regulations do not define the term “social maladjustment,” so states and school districts have interpreted it in different ways. Some equate it with conduct disorder or delinquency and see in it “willful” behavior, in which the student knows the rules and chooses to break them, as opposed to an “involuntary” disorder that merits services. This distinction has been widely criticized in the behavioral assessment literature (Merrell, 2008), for reasons that include the following:

- **No measurable criterion:** no standardized instrument separates “maladjustment” from “emotional disturbance,” so the decision comes to rest on the team's judgment.
- **Actual overlap:** many students with externalizing problems also have anxiety, depression, the effects of trauma or attention-deficit/hyperactivity disorder, so separating the two kinds within a single student is often artificial.
- **The impact of exclusion:** the students most at risk of dropping out and of school discipline may be denied services, even though their need for structured support is plainer.
- **Risk of bias:** in the absence of a criterion, the label “maladjusted” may be shaped more by the student's background and reputation than by the evidence (see Chapter 14).

Defenders of the exclusion argue, on the other hand, that the category was created for students whose emotional disturbance impedes their learning, and that folding every behavioral infraction into it would empty it of meaning. The practical position this book adopts is that the exclusion

should be applied only after a comprehensive assessment that looks explicitly for the five characteristics, and that the evidence on which it rests should be stated in the report.

Saudi regulations, for their part, treat “behavioral and emotional disorders” as a distinct category of special education, alongside “attention deficit and hyperactivity disorders” (Ministry of Education, 1436 AH [Arabic]). Section 10.11 sets out what we found in these texts and what we did not.

10.6 Signs that warrant attention

The following signs are warning signals. Their value lies in the teacher documenting them and discussing them with the school counselor or the support team, especially when they persist, appear in more than one situation, or represent a clear change from the student's previous state.

Table 10.3: Signs that warrant attention, by school level.

Stage	Attention and activity	Externalizing behavior	Emotion (internalizing)
Kindergarten and early grades	Restless movement exceeding that of the classmates closest in age, great difficulty waiting for a turn, and repeated accidents caused by impulsivity	Temper outbursts far more intense and prolonged than expected for the child's age, and repeated aggression toward peers	Intense crying at separation that lasts for weeks, complete silence at school with normal speech at home, and recurrent morning physical complaints

Stage	Attention and activity	Externalizing behavior	Emotion (internalizing)
Upper elementary grades	Assignments left unfinished despite understanding, repeated careless errors, and materials constantly lost	Constant arguing with adults, refusal to follow instructions with more than one teacher, and lying or taking others' belongings	Excessive fear of mistakes or of tests, avoidance of participation, withdrawal from play, and sadness or irritability lasting for weeks
Middle and high school	A sudden decline as the number of subjects grows, inability to plan projects and deadlines, and quiet inattention that had gone unnoticed before	Unexcused absences, serious rule violations, aggression, associating with peers who break rules, and frequent intense irritability	Increasing absences, falling grades, withdrawal from friends, changes in sleep or eating, and expressions of hopelessness or worthlessness (see also the warning box in 10.4)

10.7

The decision pathway

1 Documented observation

Record the behavior with an operational definition, that is, a description that can be observed and counted, across different situations, together with what precedes and follows it. Consider the student's relative age within the class and any recent change in his or her life.

**2 Sensory check, screening and classroom support**

Confirm that hearing and vision are intact as a precondition for any diagnostic instrument. Then conduct universal behavior screening that captures externalizing and internalizing problems together, or use a broad screening measure such as the Strengths and Difficulties Questionnaire. Alongside these, make adjustments to the environment, instruction and behavior management, and monitor their effect.



Persists despite support: referral

3 Ruling out other causes

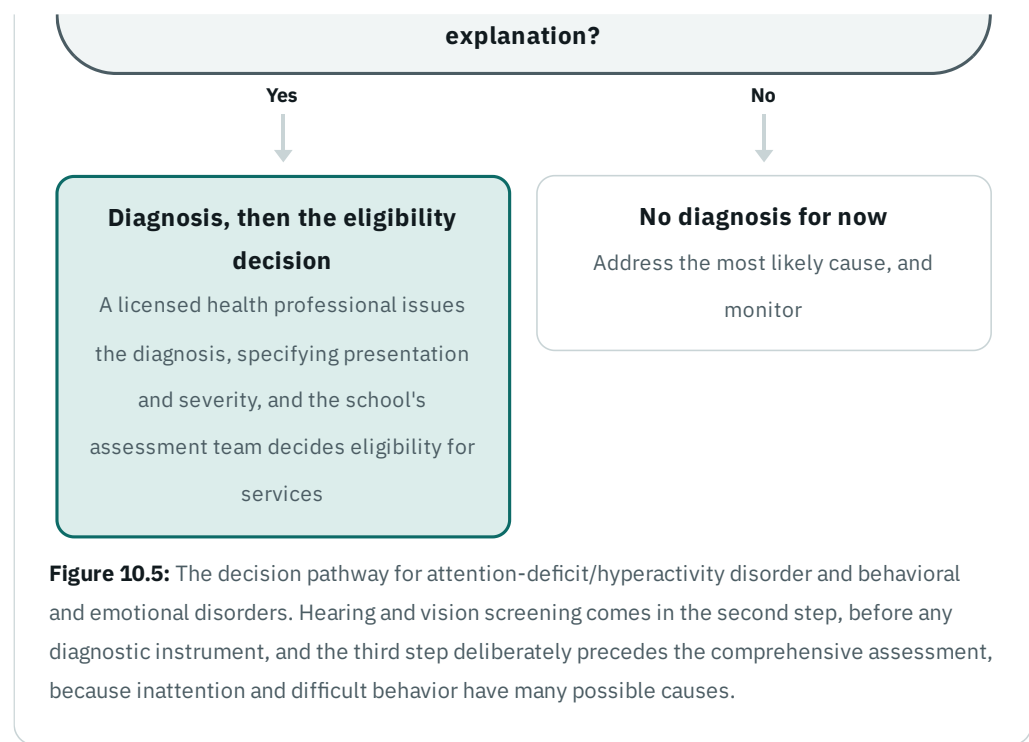
Ask about sleep and health, assess achievement to rule out a learning disability, and ask about family circumstances, recent changes and traumatic events. Formal referral begins with the parent's written consent.

**4 Comprehensive multi-informant assessment**

Rating scales from the family and from two teachers where possible, and from the student if old enough; a developmental history interview; direct observation; and a functional behavioral assessment (**Functional Behavioral Assessment, FBA**) when the function the behavior serves needs to be understood.



Are the criteria met in two settings, with impact, and with no better



Universal behavior screening

Schools usually wait for a student to catch the teacher's eye, which means that a student who disturbs no one may never be seen at all. For this reason, schools that operate a multi-tiered system of supports are turning to **universal behavior screening (Universal behavior screening)**: the teacher rates every student in the class, referred or not, with a brief tool two or three times a year, as is done for reading. Table 10.4 presents three well-known examples.

Table 10.4: Examples of universal behavior screening systems in schools.

System	Method	What it captures
Student Risk Screening Scale (Student Risk Screening Scale, SRSS) and its extended version for internalizing problems (SRSS-IE)	The teacher rates every student on a single list of a few items using a short scale, in one sitting for the whole class	The original version targets externalizing problems; the extended version adds items for internalizing problems
Behavioral and Emotional Screening System (Behavioral and Emotional Screening System, BESS)	Brief teacher, parent and student forms, part of the Behavior Assessment System for Children family (Reynolds & Kamphaus, 2015)	An overall risk level (normal, elevated or extremely elevated) covering both externalizing and internalizing problems
Systematic Screening for Behavior Disorders (Systematic Screening for Behavior Disorders, SSBD)	Successive gates: the teacher ranks students on externalizing and internalizing lists, then rates the highest-ranked students with more detailed checklists; in the original version, direct observation in the classroom and on the playground follows	Both kinds together; it was designed from the outset so that internalizing problems would not be missed

These systems are useful only under two conditions. First, they must be preceded by whatever notification of families school procedures require, and their results must be kept confidential. Second, the school must have something to offer the students the screening identifies, such as support groups for social skills or anxiety management, and follow-up with the school counselor. Screening that identifies students and then leaves them without support defeats its own purpose. The screening result determines who needs a

closer look; the decision rests on the assessment that follows. At the time of writing, we know of no published standardized Arabic version of any of these three systems.

 For the teacher: the limits of your role

You are a key source of information about the school setting, and no assessment is complete without your ratings. But do not tell a family that their son “has hyperactivity” or that their daughter “is depressed,” and do not suggest medication. Diagnosis and treatment fall within the authority of the licensed health professional, and the decision on eligibility for services within that of the school’s assessment team. Describe what you see, provide support in the classroom, and refer according to procedures.

10.8 Instrument profiles

Broadband screening Captures externalizing and internalizing problems together and highlights strengths. SDQ	Rating scales Measure disorder symptoms or a broad range of problems across multiple informants. Vanderbilt • Conners 4 • ASEBA • RCADS	Computerized measures Computer-based attention tasks, used only as a supplement. CPT
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The profiles follow a single template: the idea behind the tool, its actual format, a scene from its administration, a table of its key information, how its results are interpreted, and finally its limitations. Where we have not verified a figure in the technical manual itself, we write “in the technical manual” or “in published studies,” and we have not carried over figures from secondary sources; examiners should read these values from their original sources before

relying on the tool (see Chapter 2). This book does not reproduce the items of any instrument, and the drawings of forms are meant only to illustrate the layout of the page.

For the specialist: Why do informants disagree?

A well-known meta-analysis pooled the results of dozens of studies on informant agreement about children's behavioral and emotional problems. The mean correlation was about 0.60 between informants who see the child in the same setting, such as two parents; about 0.28 between informants who see the child in different settings, such as a parent and a teacher; and about 0.22 between children's self-ratings and the ratings of others (Achenbach et al., 1987). A later, extensive review concluded that this discrepancy is information in its own right, and that averaging it away squanders that information: it tells us where the behavior appears and with whom, and it reveals problems that only the child can see (De Los Reyes et al., 2015). The practical rule is this: for externalizing problems, teachers and parents are strong sources; for internalizing problems, especially in adolescents, the student's self-report is essential, because anxiety and sadness may go unnoticed by anyone else.

SDQ Strengths and Difficulties Questionnaire

Broadband screening

The idea

A brief tool completed by someone who knows the student. Within minutes it screens for the most prominent behavioral and emotional problems while also measuring a positive domain, which makes it suitable for screening in both schools and clinics (Goodman, 1997).

What it looks like

A single page of 25 statements, divided equally among five subscales: emotional problems, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior. For each statement, the respondent chooses one of three options: “Not true,” “Somewhat true,” or “Certainly true.” There are parent and teacher forms, a self-report form from age 11, and an optional supplement asking about the impact of the difficulties on the student’s life.

1

2

0

1

2

1

2

3

4

5

6

...

3

1

Details of the student and the respondent, with brief instructions: answer based on the student’s behavior over the past six months.

2

Twenty-five statements in which the five scales alternate, each followed by three boxes scored 0, 1 and 2, with reverse scoring for the positively worded statements.

3

Impact supplement: Do the difficulties affect home life, schoolwork and relationships? How long have they lasted?

Figure 10.6: Illustrative drawing of the layout of the Strengths and Difficulties Questionnaire form. The gray lines do not represent the actual statements; the original form can be downloaded in its various languages from the tool’s official website (<https://www.sdqinfo.org>).

A scene from administration

At the start of the semester, a sixth-grade teacher completes the questionnaire for a student referred by a colleague who teaches her another subject. It takes five minutes, and she notices that she would never have paid attention to the statements about fears and physical complaints had she not been asked about them. The parent form is sent to the mother with a letter explaining its

purpose, and the student completes the self-report form with the school counselor. The counselor then gathers the three forms and compares the subscales across them.

Table 10.5: Strengths and Difficulties Questionnaire (SDQ) at a glance.

Purpose	Broadband screening for behavioral and emotional problems, with a measure of prosocial behavior
Ages	Parent and teacher forms for ages 2 to 17, in age-specific versions, and a self-report form for ages 11 to 17
Edition and year	Original version 1997, with later versions and supplements
Publisher	The tool's author, via its official website; the paper version is free for noncommercial use
Qualification level	Completed by parents, teachers and students; interpreted by a trained professional
Time	About 5 minutes
Score types	A score for each subscale (0 to 10), a total difficulties score (0 to 40) summing the four problem scales, and an impact score
Cutoff scores	Bands derived from the original norms, originally set so that about 80% of the sample fell in the normal band, about 10% in the borderline band, and about 10% in the high band
Reliability	In published studies
Classification accuracy	In published studies; varies by population and informant
Year of norm collection	The original norms are British; some countries have their own norms

Arabic version	Yes. An Arabic translation is available on the official website, and its validity was examined with Yemeni children aged 5 to 12 in a clinical sample (87 children) and a community sample (100 children); the questionnaire discriminated well between the two samples (Alyahri & Goodman, 2006). We are not aware of published Saudi norms for it at the time of writing
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How are the results interpreted?

The subscales are read before the total score, because the same total can result from externalizing problems in one student and internalizing problems in another. The forms are then compared: elevated emotional problems on the student’s own form alone, with low scores on the teacher and parent forms, may mean that what the student is going through is hidden from those around them, rather than that the student is exaggerating. A high prosocial behavior score is a reminder that the student has strengths alongside the difficulties, and it helps in building a support plan on those strengths.

Limitations

It is a screening tool, so a high band signals the need for a more detailed assessment. Five statements per scale are not enough to distinguish specific disorders, such as anxiety from depression. The bands are derived from British norms, so they should be used with caution with Arab students unless local norms are available.

Vanderbilt

Vanderbilt ADHD Diagnostic Rating Scales

Rating scale

The idea

Translating the DSM criteria into a form completed by parents and teachers, so that the physician or specialist counts symptoms from two sources rather than relying on a general impression, while also screening for the most prominent

co-occurring disorders (Wolraich et al., 2003).

What it looks like

Two forms: one for parents and one for teachers. The first section lists the eighteen symptoms of the disorder in wording close to the DSM, each rated on a four-point scale from “Never” to “Very often.” Screening items follow for oppositional defiance, conduct disorder (on the parent form), and anxiety and depression. The final section contains performance items covering reading, mathematics, writing, relationships and following directions, each rated on a five-point scale from “Excellent” to “Problematic.”

The form is divided into three main sections, each indicated by a green circle with a number:

- 1** The eighteen symptoms: nine for inattention, then nine for hyperactivity-impulsivity, on a scale from zero (Never) to three (Very often).
- 2** Screening items for co-occurring disorders, on the same scale.
- 3** Performance items on a five-point scale; these are used to infer Criterion D.

Figure 10.7: Illustrative drawing of the layout of the Vanderbilt teacher form. The gray lines do not represent the actual items.

A scene from administration

The pediatric clinic hands Umm Faisal the parent form, along with the teacher form in a sealed envelope to deliver to the school. The teacher completes her form drawing on her written notes from the past two weeks as well as her

memory. When both forms come back, the physician counts the items rated “Often” or “Very often” on each, then looks at the performance items, and then at the screening items for co-occurring disorders (see Figure 10.8).

Table 10.6: Vanderbilt scales at a glance.

Purpose	Rating ADHD symptoms and performance, screening for co-occurring disorders, and monitoring response to treatment
Ages	Primarily elementary school (about 6 to 12 years); the Saudi study included children aged 5 to 12
Edition and year	Parent and teacher forms, with follow-up forms
Publisher	Available for clinical use as part of published guidance toolkits for pediatricians
Qualification level	Completed by parents and teachers; interpreted by a physician or qualified specialist
Time	About 10 minutes
Score types	The number of symptoms present on each list, the total score, and the number of performance items rated as problematic
Cutoff scores	Six symptoms present on a list, with impairment on at least one performance item, in line with the DSM criteria
Reliability	In published studies, including the Saudi study
Classification accuracy	In published studies
Year of norm collection	Based on symptom counts, without age norms

Arabic version

Yes. An Arabic version (**VADRS-A**), with parent and teacher forms, was studied with 1,812 participants in Saudi Arabia (504 parents and 1,308 teachers) rating children aged 5 to 12, under the supervision of the Saudi ADHD Society (Alqahtani et al., 2024)

How are the results interpreted?

Items rated “Often” or “Very often” count as symptoms present. The number of symptoms present on each list is then counted and compared with the six-symptom criterion, and impairment on the performance section is required. The two forms are then compared: do several symptoms appear in both settings? The scale translates the DSM criteria into a form, but the judgment remains with the specialist once it is combined with the developmental history, observation and the rest of the evidence. Clinical guidelines recommend collecting such scales from both the family and the teacher (Wolraich et al., 2019).

Limitations

Counting symptoms does not rule out other explanations; an anxious or sleep-deprived student may meet the count. Because the scale does not compare the student with age norms, the question of whether symptoms are “inconsistent with developmental level” is left to the specialist’s judgment, which matters for the youngest students in a class. The screening items for co-occurring disorders are few, so they serve only as a flag.

Conners 4 Conners, Fourth Edition

Rating scale

The idea

A detailed standardized rating scale of ADHD symptoms, co-occurring problems and their impact on functioning, which compares the student with same-age, same-sex peers using standard scores rather than relying on

symptom counts alone (Conners, 2022).

What it looks like

Parent, teacher and self-report forms, in full and short versions, completed on paper or online. Alongside the symptom scales, it includes scales of impact on schoolwork, relationships and home life, as well as response validity indicators, such as an overly negative or overly positive impression, or inconsistency across responses.

A scene from administration

An eighth-grade student is being assessed for a possible quiet presentation. He completes the self-report form online in a quiet room; his mathematics and Arabic teachers each complete the teacher form separately, and his mother completes the parent form. The specialist begins with the response validity indicators before looking at any score.

Table 10.7: Conners, Fourth Edition (Conners 4) at a glance.

Purpose	Detailed assessment of ADHD symptoms, co-occurring problems and their impact, and monitoring of intervention
Ages	6 to 18 years for the parent and teacher forms, with a self-report form for older youth
Edition and year	Fourth edition, 2022
Publisher	Multi-Health Systems (MHS)
Qualification level	A professional trained in interpreting standardized rating scales, in accordance with the publisher's requirements
Time	Varies between the full and short versions

Score types	T-scores (mean 50, standard deviation 10) for each scale, and percentile ranks, that is, the percentage of peers in the norming sample who scored below the student; a percentile rank of 84 means the student scored higher than 84% of them
Cutoff scores	Descriptive bands for T-scores set out in the technical manual; the further a score rises above about 65, the greater the concern
Reliability	In the technical manual
Classification accuracy	In the technical manual
Year of norm collection	In the technical manual
Arabic version	At the time of writing we know of no published standardized Arabic version

How are the results interpreted?

On this scale, a higher score means more problems; a score of 70, for example, lies two standard deviations above the mean of the student's same-age, same-sex peers (see Chapter 2). The response validity indicators are read first, then the scales are compared across informants, and then the symptoms are linked to the impact scales: a high symptom score with little impact is not enough to meet Criterion D.

Its limits

Its norms are American, and we are not aware of Arabic norms for it, so comparing an Arab student with them means comparing the student with another population. It is also a rating based on the informant's perceptions, so it is shaped by the informant's expectations and relationship with the student.

ASEBA Achenbach System of Empirically Based Assessment: Child Behavior Checklist, Teacher's Report Form and Youth Self-Report

Broadband rating scale

The idea

Rather than starting from a particular disorder, this system surveys a broad range of behavioral and emotional problems and groups them into syndromes derived statistically from data on thousands of children, and then into two broad dimensions: internalizing problems and externalizing problems. It offers nearly the same format to parents, teachers and students, which makes comparison across them straightforward (Achenbach & Rescorla, 2001).

What it looks like

Three school-age forms: the **Child Behavior Checklist** (Child Behavior Checklist, CBCL) for parents, the **Teacher's Report Form** (Teacher's Report Form, TRF), and the **Youth Self-Report** (Youth Self-Report, YSR). Each has a section on competencies and functioning, followed by more than a hundred problem statements, each answered with 0 (not true), 1 (somewhat or sometimes true) or 2 (very true or often true), along with open-ended questions in which the respondent describes their concerns.

A scene from administration

In Lamia's assessment (Case 4), her mother completes the Child Behavior Checklist, two teachers complete the Teacher's Report Form, and Lamia completes the Youth Self-Report with the specialist. The system is scored electronically, producing a single profile in which the eight syndromes from the three sources sit side by side.

Table 10.8: Achenbach System, school-age forms (ASEBA) at a glance.

Purpose	Broadband rating of behavioral and emotional problems and competencies, and comparison across informants
Ages	6 to 18 years for the parent and teacher forms and 11 to 18 years for the self-report; separate forms for preschoolers
Edition and year	School-age forms and manual, 2001
Publisher	ASEBA, University of Vermont
Qualification level	Completed by parents, teachers and students; interpreted by a professional trained in standardized rating scales
Time	About 15 to 20 minutes per form
Score types	T-scores for eight syndromes (anxious/depressed, withdrawn/depressed, somatic complaints, social problems, thought problems, attention problems, rule-breaking behavior, and aggressive behavior), for internalizing, externalizing and total problems, and for DSM-oriented scales
Cutoff scores	Syndromes: 65 to 69 borderline range, 70 and above clinical range. Internalizing, externalizing and total problems: 60 to 63 borderline, 64 and above clinical
Reliability	In the technical manual
Classification accuracy	In the technical manual
Year of norm collection	In the technical manual (the edition used here was published in 2001); the system also has multicultural norms specified by the publisher

Arabic version	We are not aware of an Arabic version standardized with published local norms at the time of writing; the publisher can be asked about licensed translations
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How are the results interpreted?

The profile is read from general to specific: total problems, then internalizing and externalizing, then the syndromes driving them. Informants are then compared, as in the previous box. Elevated “withdrawn/depressed” and “somatic complaints” scores on the self-report and parent forms, with a smaller elevation on the teacher form, are a familiar picture of internalizing problems in adolescents. Its best-known alternative is the **Behavior Assessment System for Children**, Third Edition (**BASC-3**), which offers similar parent, teacher and student forms and is linked to the behavioral and emotional screening system mentioned in 10.7 (Reynolds & Kamphaus, 2015).

Its limits

The syndromes are descriptive dimensions, so an elevated “attention problems” score calls for an ADHD assessment before any judgment is made. Its length is a burden for some families, and it may be affected by the respondent’s reading level. Its norms are not local, so its scores should be read with caution for Arab students.

RCADS Revised Child Anxiety and Depression Scale

Internalizing problems

The idea

Broadband scales flag the presence of internalizing problems, but they do not distinguish precisely among types of anxiety and depression. That is what this scale offers: subscales corresponding to the most common anxiety and

depressive disorders in the DSM, completed by the student, with an accompanying parent form (Chorpita et al., 2000).

What it looks like

Forty-seven short statements that the student answers on a four-point scale: “Never,” “Sometimes,” “Often” and “Always.” They are distributed across six subscales: separation anxiety, social anxiety, generalized anxiety, panic disorder, obsessive-compulsive disorder, and major depression, in addition to a total anxiety score and a total internalizing score. Other scales serve the same purpose, including the Screen for Child Anxiety Related Emotional Disorders (**SCARED**) and the Children’s Depression Inventory (**CDI-2**).

A scene from administration

The specialist sits with an eighth-grade student and explains that there are no right or wrong answers, and that the answers describe how she usually feels. The student reads the statements herself and pauses at one containing a word she does not understand; the specialist explains the word without hinting at an answer. After scoring, the specialist asks about the elevated statements: “You said you often can’t sleep. Tell me about that.”

Table 10.9: Revised Child Anxiety and Depression Scale (RCADS) at a glance.

Purpose	Rating symptoms of the most common anxiety and depressive disorders, screening within referred samples, and monitoring intervention
Ages	Students in roughly Grades 3 through 12
Edition and year	Revised version, 2000, with a parent form and a later short version
Publisher	Available free of charge from its developers for noncommercial use

Qualification level	Completed by the student and parents; interpreted by a trained professional
Time	About 10 to 15 minutes
Score types	Raw scores, and T-scores by grade and sex for the subscales and total scales
Cutoff scores	T-scores of 65 and 70 are commonly used as the thresholds for the borderline and clinical ranges, respectively, following the developers' guidance
Reliability	In published studies
Classification accuracy	In published studies
Year of norm collection	In the developers' guidance; the original norms are American
Arabic version	At the time of writing we know of no published standardized Arabic version

How are the results interpreted?

The subscales are read against one another: an elevation in depression alone differs from elevations in both generalized and social anxiety. They are then compared with the parent form. The most important thing the specialist does after scoring is to return to the elevated statements and ask about them; the scale guides the interview but does not replace it.

Its limits

It depends on the student's reading ability and on the student's capacity to understand and express their feelings, and some students may underreport their symptoms for fear of stigma. It does not ask about everything a diagnosis

requires, such as duration, impact and the student's safety. Its norms are not local.

CPT Computerized continuous performance tests

Supplement only

The idea

Measuring sustained attention and impulsivity through a deliberately tedious computerized task that records responses to the millisecond, rather than relying on others' ratings.

What it looks like

In continuous performance tests (**Continuous Performance Tests, CPT**), the student sits at a computer for about a quarter of an hour and is asked to press a button when a particular letter or shape appears and to withhold the response when anything else appears, or the reverse, depending on the test.

A scene from administration

The student sits in a quiet room, practices the task for one minute, and then the test begins. The examiner leaves the room or sits behind the student, as the test instructions specify, and records any fidgeting, talking or fatigue observed during the task.

Table 10.10: Computerized continuous performance tests (CPT) at a glance.

Purpose	A supplementary measure of sustained attention and impulsivity; a diagnosis should not rest on it alone
Ages	Vary by test; most start at school age
Edition and year	A family of commercial tests, each with its own edition
Publisher	Varies by test

Qualification level	A trained examiner administers it and a qualified professional interprets it, in accordance with the publisher's requirements
Time	Usually about 15 minutes
Score types	Standard scores or T-scores for omission errors, commission errors, reaction time and its variability
Cutoff scores	According to each test's manual
Reliability	In each test's technical manual
Classification accuracy	Limited, according to systematic reviews (see Limitations)
Year of norm collection	In each test's technical manual
Arabic version	The task is largely nonverbal, but we are not aware of published standardized Arabic norms for any of these tests at the time of writing

How are the results interpreted?

The program records omission errors, that is, failing to press when the target appears, which are associated with inattention; commission errors, that is, pressing when a nontarget appears, which are associated with impulsivity; and the variability of reaction time. The result is read as a hypothesis awaiting confirmation from other evidence.

 Limitations: Why are they not enough on their own?

These tests appear objective because they are computerized, but systematic reviews have found that they do not discriminate accurately enough between children with and without the disorder, and that they do not reflect the child's behavior in the classroom (Hall et al., 2016). A child may perform well during a quiet quarter of an hour with an examiner yet struggle through a full school day. For this reason, they are used as a supplement to rating scales and observation.

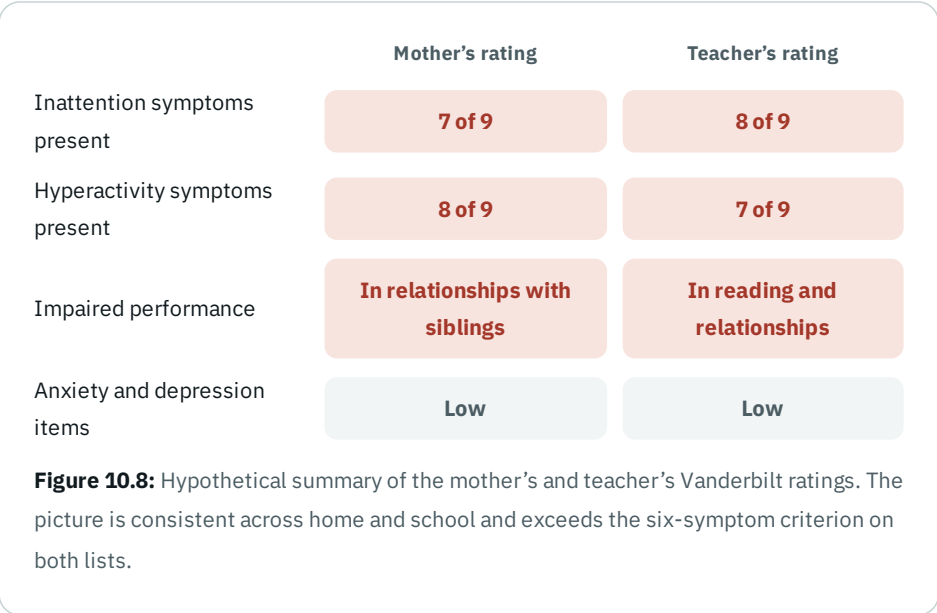
10.9

When is a judgment made? Four cases

Case 1: Faisal, 7 years 8 months

Combined presentation, moderate severity

Background: He is the student in the first scene. His teacher documented his behavior for two weeks and tried seating him near her desk, breaking tasks into smaller parts and a reinforcement system; he improved slightly, then slipped back. His age is roughly in the middle of his class. His mother says he “hasn’t sat still since he started walking,” and that his kindergarten teachers complained about the same thing.



The team added that hearing and vision screening was normal, his sleep was regular, and an achievement test showed a mild weakness in reading consistent with his inattention rather than with a difficulty in phonological awareness. Direct classroom observation recorded him out of his seat in 60% of intervals using partial-interval recording (see Chapter 4), compared with 15% for two classmates observed for comparison.

A ✓
Both lists 6+

B ✓
Since kindergarten

C ✓
Home and school

D ✓
Clear impact

E ✓
No better explanation

Decision: The physician diagnosed Faisal with attention-deficit/hyperactivity disorder, combined presentation, of moderate severity: his symptom count exceeds the required threshold by one or two symptoms on each list, and his impairment is clear at home and at school without reaching a level that disrupts most aspects of his day (see Table 10.1). A classroom support plan, behavior management training for the family and monitoring of his reading skills are recommended.

What evidence could change the decision? If his reading weakness persisted after his attention in class improved, an assessment for a co-occurring learning disability would be warranted. And if kindergarten records showed that what his mother described had not been noticed there, Criterion B would need firmer confirmation before the diagnosis is settled.

Case 2: Haya, 11 years

Anxiety explains the picture

Background: She is the student in the second scene. Her teacher requested an assessment for a possible predominantly inattentive presentation. But the specialist asked about timing and learned that Haya had performed well until the end of fifth grade, that her father had gone abroad for work the previous summer, and that every evening she asks her mother whether he is all right.

Table 10.11: Evidence in Haya's case.

Source	Result	What it means
Teacher's rating on an ADHD symptom scale	6 inattention symptoms	Appears, on the surface, to be met at school
Mother's rating	One symptom (she has been forgetting some of what she is asked to do for several months); she completes her homework at home with little help, and her mother recalls that she was attentive and organized before this year	Several symptoms do not appear at home, and there is no clear impact there

Source	Result	What it means
Records from previous grades and her teachers' notes	Good performance, with no notes about daydreaming or forgetfulness	No history of symptoms before this year
—	Emotional problems elevated on the mother's and teacher's forms	A clear indicator of anxiety
Interview with Haya	She says she is “thinking about Dad” during lessons and cannot sleep well	Her daydreaming stems from preoccupation with worry

A ?
From a single source

B ✓
Only formally: no history before this year

C ✗
Not present in two settings

D ✓
Academic impact

E ✗
Anxiety is a better explanation

Decision: Haya is not diagnosed with attention-deficit/hyperactivity disorder. Criterion B is met in form, since her symptoms appeared before age twelve, but according to her mother and the records she has no history of them before this year. Two criteria rule out the diagnosis: the symptoms do not appear in two settings (C), and anxiety explains them better (E). She is referred to the school counselor and a psychologist for assessment of her anxiety and for support, and the family is informed.

The lesson

The question “When did this start?” reveals an acute onset tied to an event. An acute onset following sound functioning points toward another explanation, even when Criterion B is formally met. The criterion sets a maximum age of onset; it does not say that everything appearing before that age is developmental.

What evidence could change the decision? If her daydreaming and forgetfulness persisted after her anxiety eased with support, or if a more in-depth interview with her mother revealed symptoms at home that predated her father’s departure, the possibility of attention-deficit/hyperactivity disorder would need to be reconsidered.

Case 3: Saud, 6 years 1 month Not now

Background: His first-grade teacher referred him two months into the school year because he does not stay seated, cries when asked to write for a long time, and interrupts frequently. When the specialist reviewed his file, she found that he was among the youngest students in his class, nearly a year younger than the oldest, and that he had been admitted among the children who were less than ninety days short of turning six.

Table 10.12: Evidence in Saud’s case.

Source	Result	What it means
Teacher’s rating	6 hyperactivity symptoms	Compared with a class older than he is

Source	Result	What it means
Mother’s rating	One symptom (very active during play); she describes him as “as lively as his brothers were at his age” and sees nothing at home that worries her	Several symptoms do not appear at home
His former kindergarten teacher	Noticed no particular problem	No clear history
Comparative observation	His behavior is close to that of the two youngest students in the class, and above the overall average	Consistent with his age

Decision: Saud is not diagnosed at this time. His symptoms appear in only one setting and are consistent with his age when he is compared with the peers closest to him in age, which means the symptoms are not “inconsistent with developmental level” as Criterion A requires. Age-appropriate classroom accommodations are recommended, such as short movement breaks and shorter tasks, together with monitoring through structured observation until the end of the semester. If the symptoms persist or appear at home, he will be reassessed.

What evidence could change the decision? If structured observation showed his activity and impulsivity remaining clearly above those of the peers closest to him in age through the end of the semester, despite the accommodations, or if his mother began to notice symptoms at home that disrupt his day, the team would move to a comprehensive evaluation.

Case 4: Lamia, 14 years 3 months, eighth grade

Eligible under the emotional disturbance category

Background: Lamia was among the top students in elementary school. From the beginning of seventh grade, about fourteen months ago, she began to change: she is often absent because of a “stomachache” on school-day mornings, she has dropped the Qur’an memorization circle she used to love, she does not participate in lessons, and she spends recess alone. No one referred her, since she is “quiet and causes no trouble.” But the universal behavior screening the school conducted in October placed her in the at-risk range for internalizing problems. She joined a ten-week support group with the school counselor, and the counselor contacted the family, but she improved only slightly. She was then referred for evaluation with her guardian’s written consent.

Table 10.13: Evidence in Lamia’s case.

Source	Result	What it means
School records	17 days absent in the current semester, compared with 3 days in sixth grade; her grade average fell from 94% to 72%	Clear educational impact and a change from her previous functioning
Child Behavior Checklist (mother)	Internalizing problems 72, externalizing 52; anxious/depressed 74, withdrawn/depressed 73, somatic complaints 70	Internalizing problems in the clinical range; no externalizing problems
Teacher’s Report Form (two teachers)	Internalizing problems 68 and 70	They see the problems too, though to a lesser degree

Source	Result	What it means
Youth Self-Report and the Revised Child Anxiety and Depression Scale	Internalizing problems 73; major depression 76, generalized anxiety 69, social anxiety 66	The highest scores come from Lamia herself
The psychologist’s interview with Lamia and her mother	Sad mood most days for more than a year, loss of enjoyment, insomnia, fatigue, difficulty concentrating, and a feeling that she is “useless.” As procedures require, the psychologist asked her about thoughts of self-harm, which she denied, and a monitoring plan was agreed with the family	A clear depressive picture with anxiety
Pediatrician	Physical examination and thyroid tests normal; no organic cause for the abdominal pain	Medical cause ruled out
Hearing and vision	Both normal	No sensory explanation
Inattention symptom scale (teacher) and elementary school records	4 inattention symptoms at present, and no notes about them in elementary school	Recent concentration difficulties, explained by depression
Rule violations	No recorded violations and no behavior problems	No grounds for an exclusion based on “social maladjustment”

After interviewing her, a child and adolescent psychiatrist diagnosed her with major depressive disorder with prominent anxiety symptoms and began a treatment plan. The school’s assessment and diagnosis team then met, with her guardian present, to answer a different question: Does Lamia need special education services? The team applied the elements of the definition of emotional disturbance (10.5):

Duration ✓ More than a year	Degree ✓ Clinical range from three sources	Impact ✓ Absences and falling grades	Characteristics ✓ The fourth and fifth	Exclusion ✓ Not social maladjustment
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Decision: Lamia is eligible under the emotional disturbance category, which in Saudi regulations falls within the category of “behavioral and emotional disorders.” Because the Special Education Organizational Guide does not spell out criteria for this category, the team documented its decision using the elements above and the psychiatrist’s certified report. Her plan included a temporary reduction in homework with flexible deadlines, a plan for a gradual return to regular attendance, brief regular meetings with the school counselor, coordination with the treating provider, and a readministration of the anxiety and depression scale after eight weeks to monitor progress.

The lesson

Without universal screening, “quiet” Lamia might have gone without support until she dropped out of school. Without her self-report, her problems would have seemed milder than they are. Internalizing problems in adolescents need someone to look for them, and they require asking the student directly. Note, too, that a clinical diagnosis and eligibility for an educational category are two different decisions, each answering its own question and each made by those with the authority to make it.

What evidence could change the decision? If her attendance and grades improved steadily with treatment, and her anxiety and depression scale scores returned to the normal range on readministration, the team would review her need for special education services at the time of reevaluation, while maintaining counseling support.

10.10 Differential diagnosis and co-occurrence

Similar conditions

Inattention, hyperactivity and challenging behavior are symptoms that appear in many conditions. These are the main questions to ask before reaching a judgment:

Table 10.14: Differential diagnosis of ADHD and behavioral and emotional disorders.

Possible cause	Similarity	Distinctive features
Relative age and immaturity	Restlessness and weak self-control	Behavior is consistent with that of the peers closest in age, as in Saud’s case
Anxiety	Daydreaming, fidgeting and difficulty concentrating	Daydreaming due to preoccupation with worries, and an onset linked to an event, as in Haya’s case
Depression	Poor concentration and unfinished tasks, and irritability that may be read as defiance	Sadness or irritability, loss of interest in things previously enjoyed, and a clear change from previous functioning, as in Lamia’s case

Possible cause	Similarity	Distinctive features
Oppositional defiant disorder	Refusing instructions and not completing tasks	The refusal is directed at the person making the request rather than at the task, and it appears even with short, easy tasks. It frequently co-occurs with ADHD
—	Temper outbursts and irritability	Severe, recurrent outbursts, persistently irritable mood between outbursts, and onset before age ten
Learning disability	Avoiding tasks and not completing them	Inattention appears only in the difficult subject, while the student attends well in others. The two may co-occur
Hearing or visual impairment	Does not respond or follow along	Improves when the sensory impairment is treated, which is why sensory screening precedes any diagnostic tool
Insufficient sleep or sleep problems	Fatigue, daydreaming and quick temper	A history of late or interrupted sleep, or snoring
Trauma and family stress	Hypervigilance, emotional reactivity and poor concentration	A history of difficult events, after which behavior may change noticeably
Giftedness with an unsuitable curriculum	Boredom, daydreaming and interrupting	Usually improves with enrichment and tasks matched to the student's level. But the disappearance of the behavior during a stimulating activity does not rule out the disorder (see the box in 10.1), and the two may co-occur
Autism spectrum disorder	Social difficulties and impulsivity	The social difficulty lies in reading social cues, not in impulsivity alone; both diagnoses may be given together

Co-occurring condition

The conditions in Table 10.14 are not always alternatives; many of them co-occur in the same student. Oppositional defiance frequently accompanies ADHD, anxiety and depression often occur together in adolescents, and published reviews report that a substantial proportion of students with learning disabilities also have ADHD, with estimates varying according to samples and criteria (DuPaul et al., 2013). Knowing that two disorders can co-occur is only a first step; each combination then calls for an assessment procedure that keeps one condition from masking or inflating the other:

- **With learning disabilities:** Achievement is measured with standardized tools in every ADHD assessment, and the team checks whether inattention appears across all subjects or only in the area of weakness. If treatment for attention begins, academic skills are measured again afterward.
- **With oppositional defiance:** Ask about symptoms in situations that involve no demands and no authority, such as free play or watching a program; inattention that appears there cannot be explained by defiance.
- **With anxiety and depression:** Establish when each began, and ask the student directly using a measure of internalizing problems, because poor concentration is a shared symptom that will be counted twice unless care is taken.
- **With autism spectrum disorder:** Read the attention and impulsivity items on rating scales with caution, because some may be elevated for reasons related to autism itself, such as not responding to one's name or absorption in a special interest; rely on observation across varied situations (see Chapter 9).
- **With giftedness:** Compare behavior in an ordinary lesson with a lesson that offers genuine challenge, gather ratings from two settings, and ask about developmental history before school (see Chapter 13).

Precise co-occurrence rates vary widely across studies depending on the source of the sample (clinical or community), the instrument and the criteria. For that reason we do not present them here as definitive figures, and we offer instead a practical rule: whenever one of these disorders is diagnosed, ask about the others.

10.11

In the Saudi and Arab context

 In the Saudi context: Who diagnoses, and who decides eligibility?

The Special Education Organizational Guide lists “attention-deficit and hyperactivity disorders” and “behavioral and emotional disorders” as two separate special education categories (Ministry of Education, 1436 AH [Arabic]). The earlier Disability Welfare Law had counted “behavioral and emotional disorders” among disabilities (Disability Welfare Law, 1421 AH [Arabic]); it was later replaced by the Law on the Rights of Persons with Disabilities, which defines a person with a disability as someone with a “long-term disorder or impairment” in functions that include “psychological” functions (Law on the Rights of Persons with Disabilities, 1445 AH [Arabic]). Table 10.15 compares this regulatory framework with the two diagnostic manuals and with U.S. law.

Table 10.15: Attention-deficit/hyperactivity disorder and behavioral and emotional disorders in the diagnostic manuals, US law and Saudi regulations.

Element	DSM-5-TR and ICD-11	US law (IDEA)	Saudi regulations
Category	Separate diagnoses: attention-deficit/hyperactivity disorder, oppositional defiant disorder, conduct disorder, anxiety, depression and others	No separate category for ADHD, which is usually served under “other health impairment”; the “emotional disturbance” category covers emotional and behavioral conditions	Two separate categories: “attention-deficit and hyperactivity disorders” and “behavioral and emotional disorders” (Organizational Guide)

Element	DSM-5-TR and ICD-11	US law (IDEA)	Saudi regulations
Definition and criteria	Detailed criteria specifying the number of symptoms, duration and age in DSM-5-TR; a description of features without a set number in ICD-11	Five characteristics, over a long period of time and to a marked degree, adversely affecting educational performance; includes schizophrenia and excludes social maladjustment alone	For eligibility: “Hyperactivity, attention deficit or both, requiring intervention according to an accredited report.” We found no detailed criteria in the Guide for emotional disorders, nor any counterpart to the exclusion of social maladjustment

Element	DSM-5-TR and ICD-11	US law (IDEA)	Saudi regulations
Who decides	A qualified clinician, according to each country’s licensing rules	A team of qualified professionals together with the parents	Assessment and diagnosis team: the school principal, the vice principal for student affairs, the special education teacher, the general education teacher, the school counselor, specialists relevant to the category, a physician where available, and the parent or guardian where possible. An “accredited report” is required, without naming who issues it

Element	DSM-5-TR and ICD-11	US law (IDEA)	Saudi regulations
Instruments	A comprehensive clinical evaluation, supported by rating scales from multiple sources	Multi-instrument evaluation; no single procedure may be relied upon	“Tools and measures approved by the Ministry of Education,” “not relying solely on the results of a single scale,” administered and interpreted “by qualified specialists.” We found no published list of these instruments
Consent and reevaluation	Not applicable	Parental consent, and reevaluation at least every three years	Written consent from the guardian after notification, with no response within 14 days treated as consent; rediagnosis no earlier than 6 months and no later than 18 months after the initial diagnosis

Who issues the diagnosis? We found no published text that specifies precisely who is authorized to diagnose attention-deficit/hyperactivity disorder or emotional disorders in Saudi Arabia. What we did find is that the Organizational Guide requires an “accredited report” for eligibility without naming who issues it (Ministry of Education, 1436 AH [Arabic]),

and that the professional licensing examination for psychologists assesses their readiness to conduct psychological assessment “to identify/diagnose” psychological disorders (Saudi Commission for Health Specialties, 2024 [Arabic]). This chapter therefore uses a single formulation: **the clinical diagnosis is made by a health professional licensed by the Saudi Commission for Health Specialties, within the scope of that license**, such as a pediatrician, a psychiatrist or a clinical psychologist, **and the school's assessment team decides eligibility for services**. Readers should consult any subsequent regulations issued by the Commission and the Ministry of Education.

Prevalence: A meta-analysis of fourteen Saudi studies estimated the prevalence of attention-deficit/hyperactivity disorder at about 12.4%, with a confidence interval of 5.4% to 26% (Aljadani et al., 2023). At the time of writing, we found no published, peer-reviewed national estimate of the prevalence of emotional disorders among school students in Saudi Arabia.

A question for reflection: If Lamia’s case came before a team applying the text of the Organizational Guide to the letter, what evidence would it rely on for the eligibility decision, given that the text does not spell out the category’s criteria? And what is the risk of leaving the definition of the category to the judgment of each team?

Available Arabic instruments

Table 10.16 brings together the Arabic versions of this chapter’s instruments that we found published at the time of writing. It makes no claim to completeness, and it is no substitute for verifying the licensing and norms of any instrument before using it in a decision.

Table 10.16: Published Arabic versions of the instruments in this chapter.

Instrument	Study	Country and sample	What it offers	Limitations
—	Alyahri & Goodman (2006)	Yemen; children aged 5 to 12, clinical sample (87) and community sample (100)	Evidence of the Arabic version's validity in distinguishing between the two samples	Small sample from a single country; no published Saudi norms
Vanderbilt scales	Alqahtani et al. (2024)	Saudi Arabia; 1,812 participants (504 parents and 1,308 teachers) rating children aged 5 to 12	Psychometric properties of an Arabic version, with parent and teacher forms, in a Saudi sample	For the elementary grades; consult the study for the scores it reports and its limitations
Conners scales	At the time of writing, we know of no standardized Arabic version published in a peer-reviewed journal			
Achenbach System and Behavior Assessment System for Children	At the time of writing, we know of no published standardized Arabic version with local norms			
Anxiety and depression scales	At the time of writing, we know of no published standardized Arabic version of the Revised Child Anxiety and Depression Scale			

Instrument	Study	Country and sample	What it offers	Limitations
Universal behavior screening systems	At the time of writing we know of no published standardized Arabic version			

The gap here is wider for internalizing problems than for attention-deficit/hyperactivity disorder. A Saudi elementary school student can be rated on an Arabic rating scale studied in a large Saudi sample, but for the anxious or depressed adolescent we know of no Arabic self-report instrument standardized with local norms. Until this gap is closed, the report should state the source of each instrument and its norms, and the student’s own report and interview should carry more weight than the standard score alone.

Conclusion

The central argument we have sought to set out in this chapter is that judgment in these categories goes beyond the mere presence of a behavior: it turns on the number of symptoms, when they first appeared, the range of settings in which they show themselves and their effect on functioning, and on the absence of a more likely explanation. It follows that assessment begins with sensory checks and universal screening, rests on rating scales from multiple informants, compares the student with the peers closest in age, treats the student’s own report as essential for internalizing problems, and keeps computerized tests in a merely supplementary role. It also follows that the clinical diagnosis, made by a licensed health professional, must be kept distinct from the eligibility decision, made by the assessment team.

Some of the chapter’s questions, however, remain contested or unsettled. The exclusion of social maladjustment alone from the emotional disturbance category in US law is a matter of debate; the ICD-11 does not require a set

number of symptoms as the DSM does; and Saudi regulations treat emotional disturbance as a separate category without published detailed criteria, leaving it to the team to state the criteria on which it based its judgment.

10.12

Summary, key terms and activities

Chapter summary

- Attention-deficit/hyperactivity disorder is diagnosed on the basis of at least six symptoms in one or both lists, several of which appeared before age 12; several symptoms are present in two settings, they interfere with functioning, and no other disorder better explains them. The diagnosis specifies the presentation and the severity, and the ICD-11 does not require a set number of symptoms.
- A learning disability is not among the exclusionary criteria, and autism has not been an exclusion since the fifth edition of the DSM.
- The youngest students in a class are more likely to be misdiagnosed, according to studies from more than one country, so the student should be compared with the peers closest in age. The quiet presentation and internalizing problems are often overlooked, particularly in girls and adolescents.
- Oppositional defiant disorder, conduct disorder, disruptive mood dysregulation disorder, anxiety, depression and posttraumatic stress disorder each have distinct criteria, and in children and adolescents they take particular forms, such as irritable rather than sad mood in depression.
- The emotional disturbance category in US law requires a long period of time, a marked degree and an educational impact; it includes schizophrenia and excludes social maladjustment alone, an

exclusion that remains a matter of debate. Saudi regulations treat the category as separate, without published detailed criteria.

- Assessment begins with sensory checks and universal screening and rests on rating scales from multiple informants; the student’s own report is essential for internalizing problems. Computerized tests serve only as a supplement.
- Clinical diagnosis falls within the remit of a licensed health professional, and the eligibility decision within that of the assessment team.

Glossary of terms

Attention-Deficit/Hyperactivity Disorder (ADHD)	A neurodevelopmental disorder marked by a persistent pattern of inattention, hyperactivity-impulsivity, or both.
Executive functions	Capacities that direct behavior toward a goal, such as planning, working memory and self-control.
Presentation	The current picture of symptoms: predominantly inattentive presentation, predominantly hyperactive-impulsive presentation, or combined presentation.
In partial remission	A specifier used when full criteria were previously met but have not been fully met over the past six months, while impairment in functioning persists.
Relative age effect	The greater likelihood that the youngest students in a class will be diagnosed because they are

	compared with older classmates.
Externalizing problems	Problems directed toward others, such as aggression, defiance and rule-breaking.
Internalizing problems	Problems directed inward, such as anxiety, sadness, withdrawal and somatic complaints.
Oppositional defiant disorder	A persistent pattern of angry or irritable mood, argumentativeness, defiance and vindictiveness.
Conduct disorder	A repetitive and persistent pattern of violating the rights of others or major age-appropriate social norms or rules.
Limited prosocial emotions	A specifier for conduct disorder describing lack of remorse, lack of empathy, unconcern about performance and shallow affect.
Disruptive mood dysregulation disorder	Severe, recurrent temper outbursts with persistently irritable mood between them, beginning before age 10.
Emotional disturbance	An educational category in US law for students whose emotional or behavioral characteristics impede their learning over a long period of time and to a marked degree.
Social maladjustment	A term left undefined in US regulations; students so described are excluded from the emotional disturbance category unless they are also found to have an emotional disturbance.

Universal behavior screening	Periodically rating every student in a class with a brief instrument to find those who need support or evaluation, including students who have not been referred.
Informant discrepancy	Differences among parents', teachers' and students' ratings of the same problems, read as information about context rather than measurement error.
Continuous performance test	A computerized task that measures sustained attention and impulsivity through responses to a sequence of stimuli.
Functional behavioral assessment Functional Behavioral Assessment (FBA)	Gathering information on what precedes and follows a behavior in order to determine the function it serves for the student.

T-score, sensitivity and specificity, and cut-off score are terms defined in Chapter 2, and partial-interval recording is defined in Chapter 4.

Review questions

1. A fifth grader’s teacher rated seven inattention symptoms and two hyperactivity symptoms, and his mother rated three inattention symptoms, along with marked difficulty completing homework. Is Criterion C met? What is the likely presentation? And what information is needed to determine severity? (Objective 1)
2. Identify two differences between the DSM and the ICD-11 covered in this chapter, and explain how each would affect a report you receive about a student. (Objective 1)
3. In light of the first-grade admission rule in Saudi Arabia, how large might the age gap be between the youngest and the oldest student in a single class?

Propose a procedure in your school that would reduce misdiagnosis arising from this. (Objective 2)

4. An eighth-grade girl's grades have slipped; she forgets her homework and seems distracted. What questions would you ask before considering attention-deficit/hyperactivity disorder? And when does a late appearance of difficulties not rule out the diagnosis? (Objectives 2 and 6)
5. Classify the following as externalizing or internalizing problems: refusing instructions, stomachaches on school-day mornings, frequent fighting, silence at school while speaking at home, and running away from school. Then explain the difference between a student who has severe outbursts three times a week with irritable mood between them and a student who argues with and defies his teachers without severe outbursts, and why the two diagnoses are not given together. (Objective 3)
6. A secondary school student skips school and deliberately breaks rules with his friends, and shows no clear emotional symptoms. How does the definition of emotional disturbance in US law treat his case? What is your critique of this exclusion? And what do Saudi regulations say? (Objective 4)
7. A student performed within normal limits on a computerized continuous performance test, while his family's and teachers' ratings are very high. How would you interpret this? (Objective 5)
8. A mother rated her daughter's internalizing problems in the normal range on the Child Behavior Checklist, while the student rated herself in the clinical range on the self-report. How would you interpret this? Why would you not average the two scores? And which instrument would you add next? (Objective 5)
9. Why do hearing and vision checks and screening come at the second step of the decision pathway, before any diagnostic instrument? Name three explanations ruled out at the third step, with a question or instrument for each. (Objective 6)
10. Both Haya and Lamia show inattention and falling grades. Why did the first case end in a referral for anxiety assessment, and the second in eligibility

under the emotional disturbance category? Identify the evidence that made the difference. (Objective 7)

Case for application

Walid, 15 years, tenth grade

The story: The vice principal for student affairs referred him after two fights this semester and repeated complaints from his teachers: he argues, refuses instructions, loses his temper quickly and raises his voice. His family moved to the city a year ago. With his guardian’s consent, the team gathered the following data over one month.

Table 10.17: Data in Walid’s case.

Source	Result
Father	Severe temper outbursts at home three or four times a week, sometimes breaking his belongings, “since he was about eight”; between outbursts he is “upset and irritable most of the day”
Mother	Over the past four months he has drifted away from his old friends and sleeps a great deal; he once told her, “Nobody understands me”
Strengths and Difficulties Questionnaire (teacher)	Conduct problems in the high range; hyperactivity-inattention in the borderline range
Strengths and Difficulties Questionnaire (self-report)	Emotional problems in the high range; conduct problems in the borderline range

Source	Result
Inattention symptom scale (mathematics teacher)	Five inattention symptoms and three hyperactivity symptoms
Third-grade record	A single note: “Doesn’t finish his work; needs reminding”
Behavior records	No theft, no running away from school, no cruelty to animals; regular attendance
Hearing and vision	Both normal on this year’s school screening

Tasks: (1) Which disorders do you consider, and on which criterion does each depend? Why are oppositional defiant disorder and disruptive mood dysregulation disorder not diagnosed together? (2) What evidence is missing before any judgment can be made, whom would you ask, and with which instrument? (3) If the emotional picture is confirmed, would Walid be eligible for the emotional disturbance category under the US definition, or would he be considered “socially maladjusted”? Give your reasons, then explain what Saudi regulations say. (**Objectives 3, 4 and 7**)

Learning activities

Every activity carried out with students is conducted with the consent of the family and the school administration, without any data that could identify the student, and under the supervision of a specialist; its results are not used in any decision concerning the student.

- 1. Comparative observation:** Observe a student referred for hyperactivity, together with two students of the same sex who are closest to him in age, for ten minutes using partial-interval recording, and compare the percentages.
Desk-based alternative: Design the observation form, write operational

definitions for two behaviors, and try it out on a published video of a classroom. (Objectives 2 and 6)

2. **Classroom screening:** With the school administration's permission, and after informing families according to its procedures, have the teacher form of the Strengths and Difficulties Questionnaire completed for an entire class; then identify the students with elevated emotional problems who were not among those you had been watching. Pass anything that calls for follow-up to the school counselor through the official channel, without informing any family of a result or discussing names. *Desk-based alternative:* Write ten brief hypothetical student profiles, rate them with the questionnaire, and compare whom the screening "caught" with whom you would have referred on impression alone. (Objective 5)
3. **A map of explanations:** List ten different reasons a student might not pay attention in class, and for each one specify a question or instrument that would reveal it and where it falls in the decision pathway. (Objective 6)
4. **Comparing systems:** Apply the columns of Table 10.15 to the cases of Lamia and Walid, and write for each: What is the decision under each system? What evidence does it rest on? And what does the Saudi text leave unresolved? (Objective 4)

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When is it sound to conclude that a student has a disability, a disorder, giftedness or twice-exceptionality, and on what grounds?

This book traces the stages of diagnosis and identification systematically, from referral and the gathering of evidence to the interpretation of that evidence and the decisions built on it. It goes beyond defining the categories and setting out their criteria to examine the nature of measurement instruments, the procedures for administering them, the qualifications required of those who administer them, the principles for interpreting their results, and the point at which the evidence is sufficient to support a judgment.

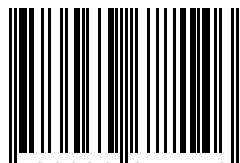
The book brings together two fields that the literature usually treats separately: disabilities and disorders, and giftedness and twice-exceptionality. It reads international standards and the American experience in light of published Saudi regulations, and describes the status of the Arabic version of each instrument it presents.

Its fifteen chapters address the foundations of measurement; formal, informal and alternative methods of gathering evidence; and identification models; then take up the categories of exceptionality one by one, supported by decision pathways, instrument profiles and applied cases. They close with fairness in diagnosis, report writing, and the development of the individualized education program.

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