# Anxiety disorders in children and adolescents: Assessment and diagnosis

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## INTRODUCTION

Worries and fears are a natural and adaptive part of childhood development and important for good coping and survival. Symptoms meet the criteria for a clinical anxiety disorder when the concerns are unexpected given the child's developmental level, persistent in the face of reassurance and support, and thus considered excessive. Triggers for anxiety disorders are typically normal development tasks or activities (eg, normative separation tasks such as going to bed alone or going to school; normative social interactions such as raising ones hand in class or ordering food in a restaurant; dealing with everyday uncertainties such as worrying about getting sick if another child is ill). All of these can cause notable distress or impairment in day-to-day functioning.

Anxiety disorders are the most common childhood-onset psychiatric disorders. Anxiety disorders in children (up to 12 years old) and adolescents (13 to 18 years old) are associated with educational underachievement and co-occurring psychiatric conditions, as well as functional impairments that can extend into adulthood.

This topic describes the assessment and diagnosis of anxiety disorders in children and adolescents. The epidemiology, pathogenesis, clinical manifestations, and course of anxiety disorders in children and adolescents are discussed separately. Pharmacotherapy and psychotherapy for anxiety disorders in children and adolescents are discussed separately. (See "Anxiety disorders in children and adolescents: Epidemiology, pathogenesis, clinical

manifestations, and course" and "Pharmacotherapy for anxiety disorders in children and adolescents" and "Psychotherapy for anxiety disorders in children and adolescents".)

## SCREENING AND ASSESSMENT

**Screening** — We agree with the United States Preventive Services Task Force (USPSTF) recommendation for screening all children and adolescents (age 8 to 18 years) for the presence of an anxiety disorder [1,2]. Our preference is to use the Screen for Child Anxiety-Related Emotional Disorders (SCARED). (See 'Instruments for screening or assessment' below.)

Given the high rates of anxiety in youth, screening for anxiety whether or not the individual is manifesting signs or has symptoms of an anxiety disorder may have value in identification, early intervention, and the prevention of anxiety-related morbidity. Prevalence estimates are reported separately. (See "Anxiety disorders in children and adolescents: Epidemiology, pathogenesis, clinical manifestations, and course", section on 'Epidemiology'.)

While no direct evidence reports benefits or harms of screening for anxiety on health outcomes, screening and early treatment may lead to a benefit on treatment outcomes such as response and disease remission [1]. For example, in the USPSTF review, psychotherapy was associated with improvement in anxiety outcomes, including treatment response (Clinical Global Impression-Improvement score 1 or 2; relative risk 1.9, 95% CI 1.2-3.1) as compared with usual care or waitlist; pharmacotherapy was associated similar benefit. However, the reported sensitivity and specificity of current screening tools are somewhat variable [1]. (See 'Instruments for screening or assessment' below.)

Further discussion of the benefits of pharmacotherapy and psychotherapy for specific anxiety disorders is discussed elsewhere. (See "Pharmacotherapy for anxiety disorders in children and adolescents" and "Psychotherapy for anxiety disorders in children and adolescents", section on 'Efficacy'.)

After a child screens positive for an anxiety disorder, a full diagnostic assessment is necessary. For screening completed in the primary care or school setting, further assessment may be done by the pediatric or school-based mental health provider or via referral to a mental health provider. (See 'Instruments for screening or assessment' below.)

**Assessment** — Psychiatric assessment for anxiety disorders in children and adolescents is performed through a face-to-face or virtual (via telehealth platform) diagnostic interview with the child and parent/caregiver.

**Interview** — During the interview, information about the child's symptoms, their frequency, duration, severity, and degree of distress or interference is collected. It is important to ask about the child's specific thoughts and triggers underlying a particular anxiety disorder or avoidance behavior.

A traditional evaluation includes questions pertaining to developmental history, medical history, and family psychiatric history as part of the diagnostic interview. We also include a social history including questions about the family and peer relationships, school functioning, preferred recreational activities, substance use and sexual history if age appropriate. For pediatric providers, a HEADSS (**H**ome, **E**ducation/employment, peer **A**ctivities, **D**rugs, **S**exuality, **S**uicide) interview adapted to include anxiety symptoms typically provides a good basis for initiating treatment [3-5].

Collateral information from school personnel may be valuable, particularly for presentations that pose difficult differential diagnostic questions (eg, is anxiety causing inattention or is inattention causing predictable school performance worry). Teachers can describe how children respond to separation, interact with their peers, and perform under academic pressures.

Some children (eg, those with social anxiety disorder and separation anxiety disorder) may have difficulty participating in the psychiatric assessment. It may be helpful to spend some time working with the parent to identify strategies to engage the child.

It is not uncommon for parents/caregivers and children to differ in their reports on anxiety and other psychiatric symptoms [6,7]. Parents/caregivers may not be fully aware of what their child is experiencing or have accommodated anxiety symptoms and thus under report. Parents/caregivers may also overstate their child's symptoms [8]. Children may not endorse symptoms due to embarrassment, oppositionality, or a wish to give a desirable response. Some children or adolescents may feel more comfortable endorsing symptoms of anxiety and related impairment in a questionnaire rather than in an interview. Anxiety disorder symptoms are triggered so children may also display symptoms in some contexts but not others, contributing to differing reports from informants [9]. A multi-informant approach may be useful when there are differences in perspectives and reporting.

**Instruments for screening or assessment** — We use clinician-assessment instruments and child/caregiver self-report instruments to screen for the presence, type, and severity of anxiety symptoms. Although each of these measures has their merits, we prefer the SCARED for clinical practice because it provides subscales related to different anxiety disorders, shows sensitivity to treatment effects, has a short five-item screening form, and is in the public domain. While these

tools cannot be used alone to diagnose an anxiety disorder, they can be useful for screening and for monitoring the severity of symptoms over time. The SCARED is available online.

- The SCARED is a parent/caregiver and child self-report instrument that assesses clinical symptoms of anxiety in children. Advantages to the SCARED for clinical practice include no cost for use and short (five-item) version for screening purposes. The SCARED discriminates anxiety from other conditions, including depression, and is sensitive to treatment effects. Clinical cut-offs on the SCARED have been established as a tool for clinicians or researchers to determine treatment response and symptom remission [10].

  Sensitivity and specificity for the SCARED for detection of any anxiety disorder in individuals age 7 to 18 are between 0.5 and 0.88 and 0.56 and 0.98, respectively [11,12].

- The Pediatric Anxiety Rating Scale (PARS) is a 50-item, clinician-rated instrument that assesses symptoms of generalized anxiety disorder, separation anxiety disorder, and social anxiety disorder in children. The PARS has demonstrated high reliability and good validity in initial testing [13].

- The Youth Anxiety Measure for the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition is a new self- and parent/caregiver-report questionnaire developed to assess anxiety disorder symptoms in children and adolescents according to the current classification system [14]. Other measures that are used by providers include the Kiddie-Computerized adaptive tests and the Patient Reported Outcomes Measurement Information System [15,16].

## DIAGNOSIS

This section describes the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR) diagnostic criteria for anxiety disorders in childhood and adolescence, use of a structured diagnostic interview, and differential diagnosis.

**DSM-5-TR diagnostic criteria** — DSM-5-TR diagnostic criteria for anxiety disorders in children are described below [17].

### Generalized anxiety disorder

- A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least six months, about a number of events or activities (such as work or school performance).

- B. The individual finds it difficult to control the worry.
- C. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms having been present for more days than not for the past six months):
  - Note: Only one item is required in children:
  - 1. Restlessness or feeling keyed up or on edge
  - 2. Being easily fatigued
  - 3. Difficulty concentrating or mind going blank
  - 4. Irritability
  - 5. Muscle tension
  - 6. Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep)
- D. The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- E. The disturbance is not attributable to the physiological effects of a substance (eg, a drug of abuse, a medication) or another medical condition (eg, hyperthyroidism).
- F. The disturbance is not better explained by another mental disorder (eg, anxiety or worry about having panic attacks in panic disorder, negative evaluation in social anxiety disorder (social phobia), contamination or other obsessions in obsessive-compulsive disorder [OCD], separation from attachment figures in separation anxiety disorder, reminders of traumatic events in posttraumatic stress disorder [PTSD], gaining weight in anorexia nervosa, physical complaints in somatic symptom disorder, perceived appearance flaws in body dysmorphic disorder, having a serious illness in illness anxiety disorder, or the content of delusional beliefs in schizophrenia or delusional disorder).

**Social anxiety disorder**

- A. Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (eg, having a conversation, meeting unfamiliar people), being observed (eg, eating or drinking), and performing in front of others (eg, giving a speech).

- Note: In children, the anxiety must occur in peer settings and not just during interaction with adults.

- B. The individual fears that they will act in a way or show anxiety symptoms that will be negatively evaluated (ie, will be humiliating or embarrassing; will lead to rejection or offend others).

- C. The social situations almost always provoke fear or anxiety.

  - Note: In children, the fear or anxiety may be expressed by crying, tantrums, freezing, clinging, shrinking, or failing to speak in social situations.

- D. The social situations are avoided or endured with intense fear or anxiety.

- E. The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.

- F. The fear, anxiety, or avoidance is persistent, typically lasting for six months or more.

- G. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

- H. The fear, anxiety, or avoidance is not attributable to the physiological effects of a substance (eg, a drug of abuse, a medication) or another medical condition.

- I. The fear, anxiety, or avoidance is not better explained by the symptoms of another mental disorder, such as panic disorder, body dysmorphic disorder, or autism spectrum disorder.

- J. If another medical condition (eg, Parkinson disease, obesity, disfigurement from burns or injury) is present, the fear, anxiety, or avoidance is clearly unrelated or is excessive.

  Specify if performance only – If the fear is restricted to speaking or performing in public.

The diagnosis of social anxiety disorder requires that a child has age-appropriate relationships with the people familiar to them, and anxiety around less familiar peers and adults [18,19].

**Panic disorder**

- A. Recurrent unexpected panic attacks. A panic attack is an abrupt surge of intense fear or intense discomfort that reaches a peak within minutes, and during which time four (or more) of the following symptoms occur:

- Note: The abrupt surge can occur from a calm state or an anxious state.
- 1. Palpitations, pounding heart, or accelerated heart rate
- 2. Sweating
- 3. Trembling or shaking
- 4. Sensations of shortness of breath or smothering
- 5. Feelings of choking
- 6. Chest pain or discomfort
- 7. Nausea or abdominal distress
- 8. Feeling dizzy, unsteady, light-headed, or faint
- 9. Chills or heat sensations
- 10. Paresthesias (numbness or tingling sensations)
- 11. Derealization (feelings of unreality) or depersonalization (being detached from oneself)
- 12. Fear of losing control or "going crazy"
- 13. Fear of dying

- Note: Culture-specific symptoms (eg, tinnitus, neck soreness, headache, uncontrollable screaming or crying) may be seen. Such symptoms should not count as one of the four required symptoms.
- B. At least one of the attacks has been followed by one month (or more) of one or both of the following:
  - Persistent concern or worry about additional panic attacks or their consequences (eg, losing control, having a heart attack, "going crazy").
  - A significant maladaptive change in behavior related to the attacks (eg, behaviors designed to avoid having panic attacks, such as avoidance of exercise or unfamiliar situations).

- C. The disturbance is not attributable to the physiological effects of a substance (eg, a drug of abuse, a medication) or another medical condition (eg, hyperthyroidism, cardiopulmonary disorders).

- D. The disturbance is not better explained by another mental disorder (eg, the panic attacks do not occur only in response to feared social situations, as in social anxiety disorder; in response to circumscribed phobic objects or situations, as in specific phobia; in response to obsessions, as in OCD; in response to reminders of traumatic events, as in PTSD; or in response to separation from attachment figures, as in separation anxiety disorder).

**Agoraphobia**

- A. Marked fear or anxiety about two (or more) of the following five situations:
  - 1. Using public transportation (eg, automobiles, buses, trains, ships, planes)
  - 2. Being in open spaces (eg, parking lots, marketplaces, bridges)
  - 3. Being in enclosed places (eg, shops, theaters, cinemas)
  - 4. Standing in line or being in a crowd
  - 5. Being outside of the home alone

- B. The individual fears or avoids these situations because of thoughts that escape might be difficult or help might not be available in the event of developing panic-like symptoms or other incapacitating or embarrassing symptoms (eg, fear of falling in the older population; fear of incontinence).

- C. The agoraphobic situations almost always provoke fear or anxiety.

- D. The agoraphobic situations are actively avoided, require the presence of a companion, or are endured with intense fear or anxiety.

- E. The fear or anxiety is out of proportion to the actual danger posed by the agoraphobic situations and to the sociocultural context.

- F. The fear, anxiety, or avoidance is persistent, typically lasting for six months or more.

- G. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

- H. If another medical condition (eg, inflammatory bowel disease, Parkinson disease) is present, the fear, anxiety, or avoidance is clearly excessive.

- I. The fear, anxiety, or avoidance is not better explained by the symptoms of another mental disorder. For example, the symptoms are not confined to specific phobia, situational type; do not involve only social situations (as in social anxiety disorder); and are not related exclusively to obsessions (as in OCD), perceived defects or flaws in physical appearance (as in body dysmorphic disorder), reminders of traumatic events (as in PTSD), or fear of separation (as in separation anxiety disorder).

Agoraphobia is diagnosed irrespective of the presence of panic disorder. If an individual's presentation meets criteria for panic disorder and agoraphobia, both diagnoses should be assigned.

**Specific phobias**

- A. Marked fear or anxiety about a specific object or situation (eg, flying, heights, animals, receiving an injection, seeing blood).

  - Note: In children, the fear or anxiety may be expressed by crying, tantrums, freezing, or clinging.

- B. The phobic object or situation almost always provokes immediate fear or anxiety.

- C. The phobic object or situation is actively avoided or endured with intense fear or anxiety.

- D. The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context.

- E. The fear, anxiety, or avoidance is persistent, typically lasting for six months or more.

- F. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

- G. The disturbance is not better explained by the symptoms of another mental disorder, including fear, anxiety, and avoidance of situations associated with panic-like symptoms or other incapacitating symptoms (as in agoraphobia); objects or situations related to obsessions (as in OCD); reminders of traumatic events (as in PTSD); separation from home or attachment figures (as in separation anxiety disorder); or social situations (as in social anxiety disorder).

Specifiers based on the phobic stimulus:

- Animal (eg, spiders, insects, dogs)
- Natural environment (eg, heights, storms, water)
- Blood-injection-injury (eg, needles, invasive medical procedures)
- Situational (eg, airplanes, elevators, enclosed places)
- Other (eg, situations that may lead to choking or vomiting; in children, eg, loud sounds or costumed characters)

**Separation anxiety disorder** — DSM-5-TR criteria for separation anxiety disorder are in the associated table ( table 1).

**Selective mutism** — DSM-5-TR criteria for selective mutism are in the associated table ( table 2).

**Structured diagnostic interview** — The gold-standard semistructured diagnostic interview is the Anxiety Disorders Interview Schedule (ADIS), Child and Parent Versions, which has been validated for children age 7 to 17 [20]. The instrument is designed to diagnose each anxiety disorder, as well as potential comorbid conditions (ie, disruptive behavior disorders, mood disorders, eating disorders, developmental disabilities) and other behavioral disturbances (eg, school refusal). It has good interrater reliability [21] and strong test-retest reliability [22]. While regularly used in research studies, the ADIS can be useful in clinical practice.

**Differential diagnosis** — In the diagnosis of an anxiety disorder, the specific target of fear or motivation, anxiety, or worry is central to making an accurate diagnosis.

- Separation anxiety disorder – Anticipating or actual separation from their parents/caregivers.
- Social anxiety disorder – Excessive self-consciousness and fear of embarrassing oneself in front of others.
- Generalized anxiety disorder – Unable to cope with uncertainty and thus living with dread or worry.
- Panic disorder with agoraphobia – Avoiding spaces or situations for fear of having a panic attack and not being able to escape.

- OCD – A preoccupation with recurrent, intrusive, unwanted thoughts, images or urges that produce distress and are most often accompanied by compulsive and repetitive behaviors or rituals to reduce this distress.

- PTSD – Avoidance, intrusions, hypervigilance, and other emotion and regulatory problems associated with an index traumatic event or events.

As an example, a child may have anxiety about going to school for a number of reasons. Assessing the specific concern is essential to the diagnosis and treatment plan. A child may be anxious due to:

- Fear of being away from their parent/caregiver (separation anxiety disorder)

- Fear of being embarrassed in social or performance situations (social anxiety disorders)

- Fear that there may be a "snap quiz" or that the correct material was not studied (generalized anxiety)

- Fear of having a panic attack at school (panic disorder)

- Fear of germs (OCD)

- A specific scary or upsetting event (eg, bullying) (see "Peer violence and violence prevention", section on 'Bullying')

Other important differential diagnostic questions arise around symptoms such as **difficulty concentrating**, **focusing**, **or making decisions**, which may require careful assessment to distinguish an anxiety disorder from other categories of psychiatric disorders. Careful questioning about the source of the patient's difficulty may help to differentiate among disorders.

- Depressive disorders – Difficulty with concentration related to low mood and motivation (see "Unipolar depression in adults: Assessment and diagnosis")

- Attention deficit hyperactivity disorder – Persistent difficulty paying attention and focusing that is less dependent on mood or setting (see "Attention deficit hyperactivity disorder in children and adolescents: Clinical features and diagnosis")

- Learning Disorders – Difficulty concentrating due to challenges understanding the material presented (see "Specific learning disorders in children: Clinical features")

- Generalized anxiety disorder – Freezing up (mind going blank) during a test due to concerns about what the test will cover and whether the participant will perform adequately

Other common symptoms that require careful assessment and differential diagnosis include:

- Sleep problems – Anxiety usually causes initial insomnia due to excessive worry about the past day or expectation for the coming day's activities. This needs to be differentiated from sleep problems associated with depression, somatic preoccupation, or effects of a substance use disorder.

- Low motivation or initiation of new activities – Possibly related to anxiety; fear of failure or excess scrutiny, depression, low energy/disinterest, or substance use disorder.

- Restricted eating – Possibly related to anxiety; fear of choking, gagging or vomiting, OCD, depression, eating disorders, or somatic problems.

- Behavioral outbursts – Possibly related to anxiety; catastrophic reactions when unable to avoid an anxiety provoking situation, mood lability, impulsivity, or conduct problems.

A psychiatric history, physical history, and medical examination should be performed to rule out anxiety symptoms due to substance use or withdrawal, or due to a general medical illness. Illnesses in children that can present with anxiety include:

- Migraine (see "Acute treatment of migraine in children")

- Inflammatory bowel disease (see "Clinical presentation and diagnosis of inflammatory bowel disease in children")

- Asthma (see "Natural history of asthma")

- Thyroid disease (see "Clinical features and detection of congenital hypothyroidism")

The relationship between somatic symptoms and anxiety disorders is complex. Some medical illnesses are often comorbid with anxiety (eg, migraines, gastrointestinal distress, and some thyroid diseases). Other conditions, such as irritable bowel disease or other thyroid conditions may appear to be related to anxiety, when in fact there is a specific physical cause that can be addressed to improve symptoms. Anxiety disorders can also cause significant physical symptoms and discomfort, which will resolve with appropriate treatment of the anxiety disorder.

## SOCIETY GUIDELINE LINKS

Links to society and government-sponsored guidelines from selected countries and regions around the world are provided separately. (See "Society guideline links: Anxiety and trauma-related disorders in children".)

## SUMMARY AND RECOMMENDATIONS

- **Screening** – We suggest screening for anxiety disorders in individuals between age 8 and 18 years (**Grade 2C**). Anxiety disorders are common in this age group and are responsive to treatment. We use the Screen for Child Anxiety-Related Emotional Disorders (SCARED), which is available online. (See 'Screening' above.)

- **Assessment** – Assessment for anxiety disorders in children and adolescents is performed through a face-to-face or virtual (via telehealth platform) diagnostic interview with the child and parent/caregiver as well as with assessment instruments. Increasingly, pediatric providers, school personnel as well as mental health professionals are engaged in screening, assessment, and treatment. (See 'Assessment' above.)

- **Interview** – During the clinical interview information about the child's symptoms, their frequency, duration, severity, and degree of distress or interference with daily functioning is collected.

  Questions pertaining to developmental history, medical history, and family psychiatric history are included in the interview. We also include a social history including questions about the family relationships, social relationships, school functioning, preferred recreational activities, substance use disorder and sexual history if age appropriate. Pediatric providers may choose to use a HEADSS interview (**H**ome, **E**ducation/employment, peer **A**ctivities, **D**rugs, **S**exuality, **S**uicide) adapted in include anxiety disorders.

  Caregivers and children may differ in their reports on anxiety and other psychiatric symptoms. Parents/caregivers may not be fully aware of what their child is experiencing or have accommodated anxiety symptoms and thus under report. Parents/caregivers with their own anxiety or depression symptoms may overstate their child's symptoms. (See 'Interview' above.)

- **Instruments for screening or assessment** – Clinician-assessment instruments and child/caregiver self-report instruments are used to assess the presence, type, and severity

of anxiety symptoms. These tools cannot be used alone to diagnose an anxiety disorder, but can be useful for screening and for monitoring the severity of symptoms over time. (See 'Instruments for screening or assessment' above.)

- **Differential diagnosis** – In the diagnosis of an anxiety disorder, the specific target of fear or motivation, anxiety, or worry is central to making an accurate diagnosis. Anxiety triggers are often normal developmental expectations or activities that most children enjoy and engage in routinely (see 'Differential diagnosis' above):

  - Separation anxiety disorder is suggested by fear or worry about normal separations to go to school, camp, or sleepovers.

  - Social anxiety disorder is suggested by excessive self-consciousness or fear of embarrassing oneself such as fear or worry about raising one's hand in class or ordering food in a restaurant.

  - Generalized anxiety disorder is suggested by prominent discomfort with routine uncertainties (or a constant worry or dread) such as whether the teacher will be at school on a given day, how is the health of otherwise healthy adults, or what will the future hold.

  - Panic disorder with agoraphobia is suggested by fear of having a panic attack and not being able to escape.

  - Obsessive-compulsive disorder is suggested by a preoccupation with recurrent, intrusive or unwanted thoughts images or urges or by repetitive behaviors or rituals to reduce distress.

  - Posttraumatic stress disorder is suggested by avoidance, hypervigilance, or other emotional problems associated with one or more traumatic events.



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