Mental Health Care in the Pediatric Clinic

The Anxiety Disorders

Objectives:

1. Define the symptoms of the common anxiety disorders
2. Assess severity of anxiety disorders using screening tools and functional assessment
3. Recognize less common anxiety disorders and anxiety-related disorders

Anxiety and Pathological Anxiety

Normal anxiety

Is triggered by emotionally high-stakes situations where the outcome is unclear.
The anxious reaction is proportionate to the situation.

Pathological anxiety

Is triggered normative experiences, that is, everyday risks and uncertainties.
Reactions are excessive and disproportionate to the risk involved.
Reactions are highly stereotyped across anxious individuals.

This list includes what we think of as the anxiety disorders. The 3 in bold type are those that we see most in children and adolescents and will cover in more detail. Specific phobias are actually more common but are less impairing because they don't tend to have daily impact. The disorders in colored type are technically no longer anxiety disorders. DSM-5 created a separate category for OCD and related disorders, and another category for the stress disorders.

Specific Phobia
Separation Anxiety Disorder
Generalized Anxiety Disorder
Social Anxiety Disorder
Selective Mutism
Panic Disorder
Adjustment disorder with anxiety
Obsessive compulsive disorder
Post-traumatic stress disorder

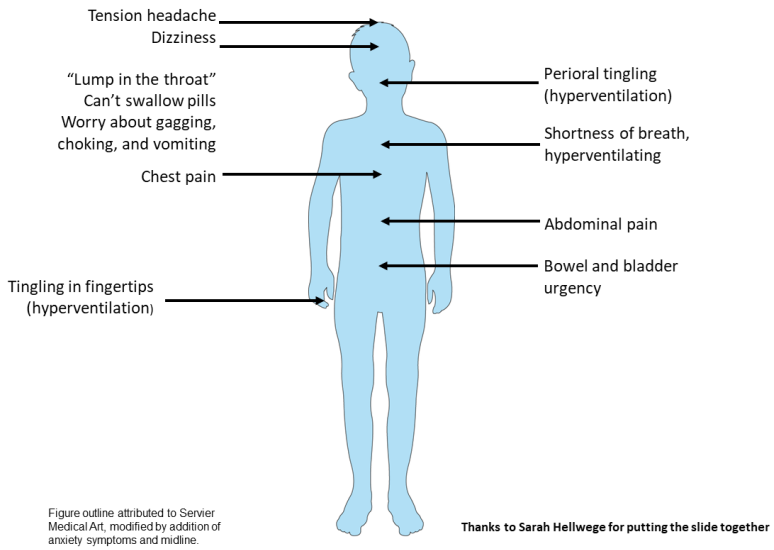
Characteristics Common to All Anxiety Disorders

- Hypervigilance
- Reactivity to novel situations
- Biased interpretation of experiences as threatening
- Avoidance as primary coping strategy
- Catastrophic reactions
- Parental accommodation: can shape family life
- Midline physical symptoms

Anxious people are constantly scanning the environment for threats, and systematically read threats into the human and non-human environment. fMRI studies show fear reactions in the brains of anxious children observing neutral faces at nearly the same rate as when observing threatening faces. Anxious children may see car accidents, abductions, diseases, loss, and humiliation around every corner, much of their waking life.

Midline physical symptoms:

Children often will not verbalize these fears, or they not even be aware that they are fears. The physical symptoms of anxiety may manifest without the child linking them to fearful thoughts and feelings. These symptoms are adrenaline-based and tend to appear as recurrent midline complaints, as shown here.



Other symptoms

- Problems with falling asleep and middle of the night awakening
- Eating problems –overeating and under eating
- Excessive need for reassurance –bedtime, school, storms, bad things happening
- Inattention and poor performance at school
- Explosive outbursts
- Avoidance of outside and interpersonal activities – school, parties, camp, sleepovers, safe strangers

Anxiety can affect all the major systems. Children with anxiety may have trouble getting to sleep or with nighttime awakening. They may anxiously overeat or be too nervous to eat much at all. They tend to seek constant reassurance without ever really being reassured. Anxiety may interfere with concentration and be confused with the inattentive symptoms of ADHD. Anxious children can be quite irritable and prone to explosive outbursts. They may cut themselves off from activities which make them anxious, reducing their opportunities to develop social competencies.

Ages of Onset Risk

Mental health disorders tend to appear in a predictable way in population of children over time. Anxiety disorders tend to emerge relatively early in childhood, generally at younger ages than do the mood disorders. Understanding the chronologic and developmental periods in which children and adolescents are at risk for the various disorders of mental health, especially in children whose family history puts them at higher risk for these disorders, allows you to anticipate and potentially prevent or mitigate the effect of these disorders

Developmental tasks and anxiety

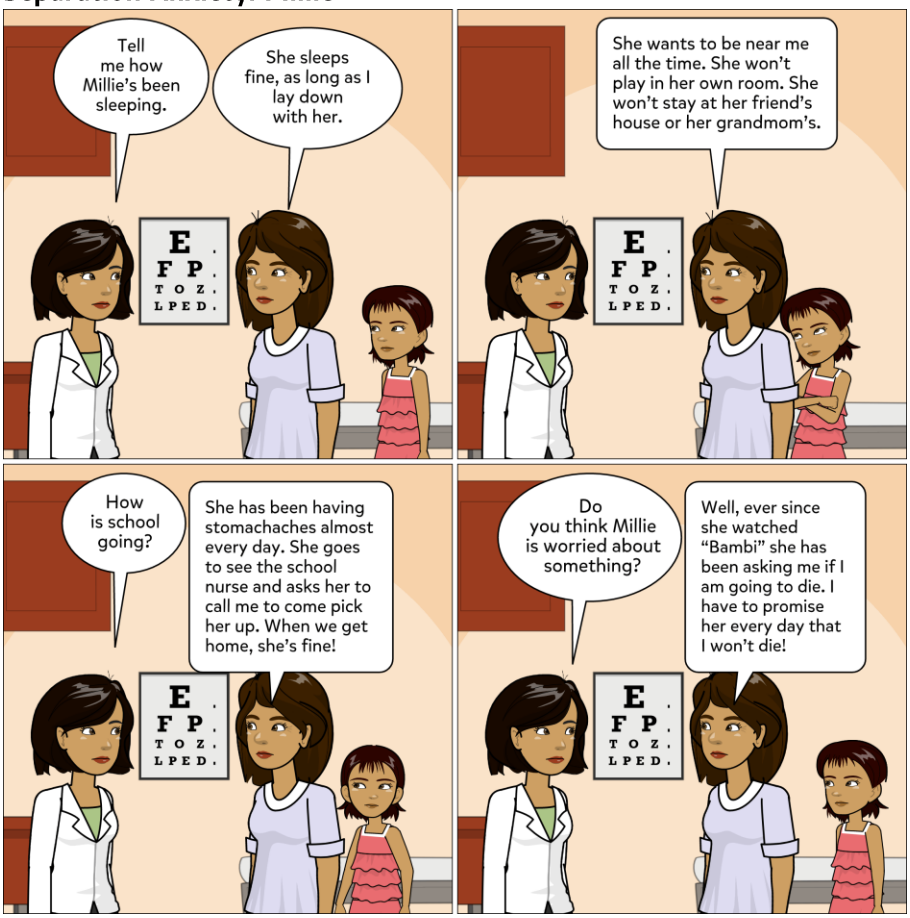
Secure attachment	• "It's ok when I go off from mom. She'll be there when I get back". • Failure: **separation anxiety disorder**
Sense of mastery	• "I can learn. I can do things." • Failure: **generalized anxiety disorder**
Identity formation	• "I'm figuring out who I am and what I value." • Failure: **social anxiety disorder**
Adult roles	• "I can take on risk and responsibility." • Failure: **panic disorder**

The individual anxiety disorders tend to appear at times consistent with normative developmental fears that are not resolved. While most young children go through a stage of stranger anxiety, but then learn to easily separate from their parents, children with separation anxiety have persistent worries that their parent will be lost to them if out of their sight. Older children go through stages of fears of the dark and of scary creatures, fear of death or dying, or fears around illness, safety, or disaster. In most children these fears resolve, but in general generalized anxiety, they are magnified and persistent. Most adolescents have worries about peer rejection, or simply fitting in, but those with social anxiety are functionally impaired by this fear. Panic disorder tends to emerge in young adulthood, often accompanying fears around managing adult life.

Anxiety Disorders

- Are common (8-10% of children and adolescents)
- Tend to run in families, so anxious children often have anxious parents
- Are under-recognized
- Are under-treated

Separation Anxiety: Millie



Separation Anxiety Disorder

Excessive concern regarding separation from home or from attachment figures

- Worries bad things may happen to parent and or child
- Cannot be alone
- Avoidance
- Difficulty falling asleep
- Physical aches and pains
- Accommodation by adults
- Impairment or distress.

The child with separation anxiety fears that, if separated from her attachment figure, that person will disappear, die, be injured or abducted, or otherwise be kept from the child forever. The child clings to the parent when possible and protests separation. The parent may end up accommodating the child's insistence on physical

proximity, either out of exhaustion, inability to tolerate the child's tears, or her own preference to keep the child close.

Separation anxiety disorder- treatment

In most cases, cognitive behavioral therapy (CBT) with an emphasis on reducing parental accommodation of anxiety.

The earlier you identify them, the less entrenched the accommodations will be.

You can encourage parents to reduce their reassurance step by step, and to reward the child for being brave.

Separation Anxiety: Millie

Millie and her parents make a fear ladder and begin to work on it from the bottom. They start by practicing having Millie tolerate being in her room with the door open while mother is in the kitchen. They choose a goal that includes an incentive for Millie- being able to play at her friend Vanessa's house.

At bedtime, when Millie asks about mother dying in her sleep, mother now says:

> *"We are not going to use that question. Instead, you may ask me, 'What are we going to have for breakfast tomorrow?'"*

Millie's fear ladder

Goal: play at Vanessa's house without mom there	
Step	Fear rating
Spend the night at Vanessa's house	10/10
Spend the afternoon at Vanessa's house	9/10
Spend 1 hour at Vanessa's house – mom leaves	8/10
Spend 1/2 hour in Vanessa's room with moms talking outside	7/10
Vanessa and I play in my room ½ hour- mom outside	7/10
Vanessa and I play in my room 1/2 hour – mom in kitchen	6/10
I play in my room for ½ hour – mom in kitchen	6/10
I play in my room for 15 minutes- mom in kitchen	5/10
I play in my room for 5 minutes- mom in kitchen	4/10

Generalized Anxiety Disorder (GAD) - Michael

Generalized Anxiety Disorder

Excessive worry and apprehensiveness

- Restless, keyed-up or on edge.
- Fatigued at end of school day
- Concentration problems "choking on tests"
- Sleep problems (falling asleep)
- Tense and irritable
- Unable to control the worry
- Impairment or distress

Kids with GAD worry excessively and cannot control the worry, leading to impairment and distress. They are tense, restless, sometimes irritable and fatigued. They may not be able to concentrate on a test because they are so worried about how they will do on the test. Kids with generalized anxiety disorder can worry about anything, but each tends to have several specific themes of anxiety. Common fears in generalized anxiety disorder include failure, uncertainty, imperfection, danger, and the future.

Generalized Anxiety Disorder: treatment

We will discuss details of treatment in the next chapter. Here are the main points:

For mild to moderate anxiety, start with cognitive behavioral therapy, emphasizing exposure and mastery.
For moderate to severe anxiety, combination therapy of an SSRI with CBT is superior.

Social Anxiety Disorder- Marcos

Social Anxiety Disorder

Fear of social or performance situations

- anxious about being with other people
- reticent to talk in social settings (short answers, soft spoken)
- self-conscious and anticipate being embarrassed
- anticipate that others will judge them
- avoid places where there are other people
- feel nauseous or sick to their stomach when with other people
- blush, sweat, or tremble around other people

Social anxiety tends to appear in the early teen years, when worrying about others see us and how we fit in is normative. While most teens bump along with some successes and many bruises to their egos, teens with social anxiety withdraw and avoid, and so may not meet the fundamental developmental goal of adolescence: a coherent sense of identity.

Social Anxiety Disorder- treatment

The same principles apply as those for GAD:

For mild to moderate social anxiety, start with cognitive behavioral therapy, emphasizing exposure and mastery.
For moderate to severe social anxiety, combination therapy of an SSRI with CBT is superior.

The key element of CBT for social anxiety is graded exposures to social situations.

The 3 disorders we have discussed:

- Separation Anxiety Disorder
- Generalized Anxiety Disorder
- Social Anxiety Disorder

collectively cause the most impairment among children and adolescents.
We believe that pediatricians can assess and treat children or adolescents who present with these disorders and

- mild to moderate impairment
- without significant comorbid mental health problems.

Other anxiety disorders, and related disorders

Next, we will review

- other anxiety disorders which are less common or less impairing
- disorders which have been considered anxiety disorders in the past.

The objective here is for you to be aware of these disorders, be able to assess their impact on a child's functioning and refer them for treatment.

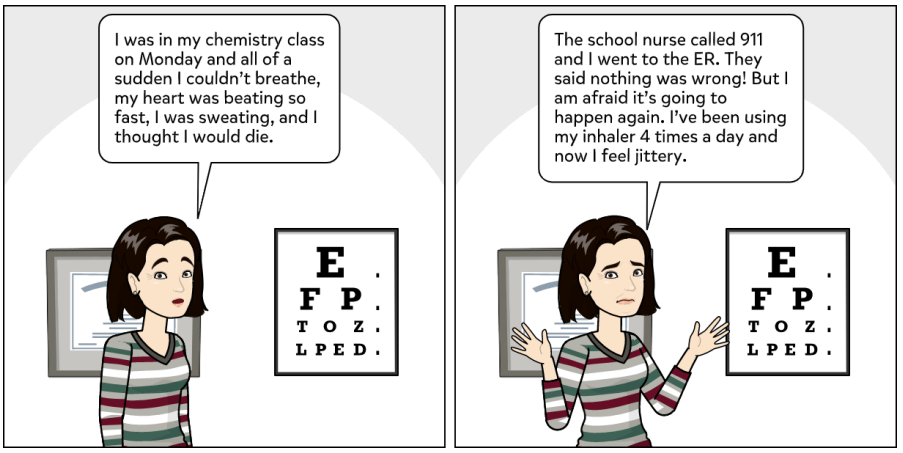
Specific Phobias

- Marked fear or anxiety about a specific object or situation. In children, fear may be expressed by crying, tantrums, freezing or clinging.
- Phobic object almost always provokes immediate fear or anxiety.
- Phobic object is actively avoided or endured with intense fear or anxiety.
- Fear/anxiety out of proportion to the actual danger posed.
- Types:
    - Animals, insects
    - Environmental - thunder, water, heights
    - Blood, injection or other suspected painful event
    - Situational - tunnels, bridges, elevators
- 70% of kids with specific phobia will have another anxiety disorder

Treatment is exposure therapy: practice gradually facing what you fear

Panic Disorder: Lucy

Lucy is 16-year-old girl with a history of asthma who comes to see you for follow up on an ED visit that occurred 4 days ago. She had been sitting in her 5th period AP Chemistry class when she had sudden onset of shortness of breath, palpitations, sweating, tingling in her hands, and the feeling that she was going to die. She went to the school nurse who called 911. On arrival to the ED, her vitals were normal except for elevated HR. Her lungs were clear. She has been using her albuterol inhaler daily since then.



Panic Disorder: DSM-V

Recurrent panic attacks.

At least 1 of the attacks followed by

- persistent worry about having a panic attack
- maladaptive behavior related to fear of attacks

Panic attack: an abrupt surge of intense fear or discomfort that reaches a peak within minutes, and during which 4+ of the following occur:

- Palpitations, pounding heart
- Sweating
- Trembling/shaking
- SOB/smothering
- Feelings of choking
- Chest pain or discomfort
- Nausea or abdominal distress
- Dizziness/light-headed
- Chills or heat
- Paresthesias
- Derealization/depersonalization
- Fear of losing control or "going crazy"
- Fear of dying

Panic Disorder

- 12-month prevalence 2-3% in adults and teens.
- Rare in children.
- Female: male 2:1.
- Risk factors include smoking, history of abuse, recent stressors, genetics.
- Asthma is common in people with panic disorder
- Panic disorder is associated with high health care utilization.

Panic Disorder: treatment

Again, combination therapy including CBT and an SSRI is best treatment.

If recent onset or minimal impairment, start with CBT.

CBT focus is on tolerating and reversing the symptoms by controlling breathing, heart rate, and thoughts.

Use of prn benzodiazepine is NOT recommended.

Selective Mutism

- Young school-aged children
- Normal or near normal speech at home
- Not speaking in social situations/school
- Not part of another disorder

Selective mutism is rare but can be impairing and tends to persist for several years and be resistant to treatment. It may run in families. It appears to be more common in immigrant children, even if they speak the language of their new home. The child will simply not say a word at school or other situations outside the home. The child may exchange notes or make signs with friends. Treatment is specialized CBT.

Post-traumatic stress disorder: Austin

Austin is 5-year-old boy brought to you for evaluation by his Department of Family Services caseworker. He has been removed from the home of his mother after allegations that Austin and his sister were not fed or clothed properly. The caseworker reports that Austin is hyperactive, runs away laughing when asked to sit down, pretends to be a steamroller smashing all his sister's dolls, and screamed when the elevator doors closed on the way to this visit.

Post-Traumatic Stress Disorder

Exposure to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence, directly or as a witness
The traumatic event is persistently **re-experienced**
Physical reactivity after exposure to traumatic reminders
Avoidance of trauma-related stimuli
Negative thoughts or feelings that began or worsened after the trauma
Trauma-related **arousal and reactivity**

Post-Traumatic Stress Disorder in young children

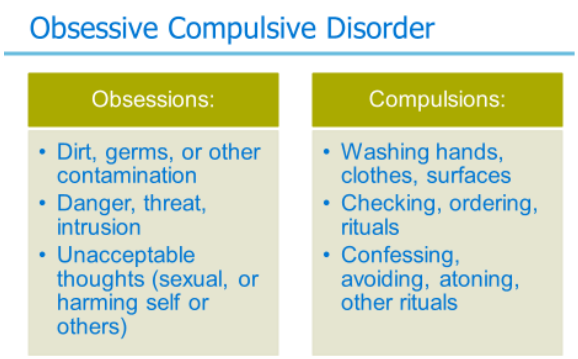
Children often do not manifest extreme distress at the time of the trauma, or their distress is not witnessed.
Preschool children do not always manifest overt distress: some children with severe PTSD present as neutral or excited.
Avoidance symptoms and negative mood may manifest as constricted play. Feelings of detachment or estrangement may be manifest more behaviorally as social withdrawal.

Post-Traumatic Stress Disorder: treatment

- Ensure current safety and well-being.
- Assess for and treat comorbid mental health disorders, particularly if they appear to have been present prior to the trauma.
- Refer to a therapist experienced in childhood traumatic stress.
- There is no pharmacologic treatment specific to PTSD in children.

Obsessive Compulsive Disorder (OCD): Jeffrey

You have been Jeffrey's doctor since he was an infant, and know that his aunt and grandmother had OCD, so you are not surprised when his mother describes behavioral changes at his 8-year well child check. Jeffrey has been coming to his mother more frequently with "confessions": he keeps telling her he did something or thought something "wrong" or "bad". He wants his mom to tell him it's ok in the same way every time.



OCD can include obsessions, compulsions, or both. A common presentation is an obsession with dirt or germs linked with handwashing or other cleansing compulsions. Some children are afflicted by obsessions around thoughts that seem unacceptable, and they engage in complex rituals to undo or atone for these thoughts. OCD symptoms can take up so much time that the child is unable to participate in other activities and can disrupt the household as others get involved in accommodating the compulsive behaviors.

Obsessive Compulsive Disorder: treatment

Combination of an SSRI and a form of CBT called Exposure-Response Prevention in which the patient is exposed to the object of the obsession (eg, an unclean surface) and practices not responding with the compulsive behavior (eg, handwashing).

Most children with OCD should be seen by a psychiatrist for initial medication management, and by a CBT therapist. Children with OCD may need long term treatment with an SSRI once stabilized.

Adjustment disorder with anxiety: Pete

Adjustment disorder with anxiety

Emotional or behavioral symptoms in response to an identifiable stressor occurring within 3 months of the onset of the stressor and either/both:

- Distress out of proportion with expected reactions to stressor
- Symptoms must be clinically significant and impairing

And

- Distress and impairment are related to the stressor and not an escalation of existing mental health disorders.
- The reaction isn't part of normal bereavement
- Once the stressor is removed or the person has begun to adjust and cope, the symptoms must subside within 6 months.

In Pete's case, since his parents began their divorce process, he has been irritable, tense, and his grades have dropped, indicating some impairment. His symptoms are not related to a previously existing anxiety disorder as he has no history of anxiety. If this is truly an adjustment disorder, Pete's symptoms will resolve within 6 months of the stressor. Treatment for Pete could include providing emotional and logistical support, improving communication in the new family configuration, and targeted therapy to help Pete work out his response to the divorce.

Adverse Childhood Events (ACES)

When a child presents with anxiety in the setting of ongoing adverse events:

1. identify and treat any pre-existing anxiety disorder
2. stop the adverse events/remove child from the setting in which adverse events occur
   involve adults in or beyond the family to protect the child
3. build resilience in the child: increase his capacity to grow in the face of adversity
   build on strengths – help child excel at something
   build on relationships – coaches, teachers, mentors

Adverse childhood events include exposure to interpersonal, domestic, or neighborhood violence, emotional, physical or sexual abuse, neglect, natural disasters, and other traumatic events. These are increasingly linked to alterations in growth, neurologic development, endocrine and immune responses, as well as mental health. Children with pre-existing anxiety disorders will have exacerbations of anxiety symptoms in these settings. It is important to both treat the anxiety disorder and mitigate the harm associated with adverse events by protecting the child and building resilience.

Screening and Assessing Anxiety

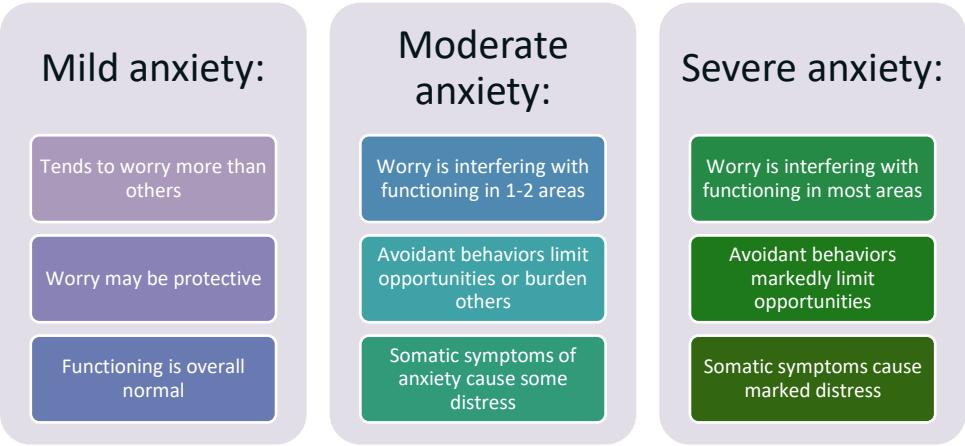
Instrument	Subscales (kinds of anxiety	Age range (years)	Parent/ child	# items
Screen for Anxiety Related Disorders (SCARED)	**GAD, SEP, SOC, PD**	**8+**	**both**	**41**
Patient-Reported Outcomes Measurement Information System (PROMIS) – Anxiety-	**GAD**	**8-17** **5-17**	**child** **parent**	**13** **10**
Generalized Anxiety Disorder -7 (GAD-7)	**GAD**	**12+**	**child**	**7**

Here is a partial list of anxiety-specific instruments. All of these are in the public domain. None of them are perfect for use in outpatient pediatrics. The SCARED, includes subscales that can help identify the particular anxiety disorder a child might have. The GAD-7, as implied by the name, is specific to generalized anxiety disorder and is commonly used in adults. The PROMIS measures are brief, general, and may be useful as initial screening measures as well as for tracking response to treatment over a broad age range.

Instrument	Age range (years)	Cut-off for likely anxiety disorder
Screen for Anxiety Related Disorders (SCARED)	**8+**	**SCARED-child: 25 SCARED-parent: 17**
Patient-Reported Outcomes Measurement Information System (PROMIS) – Anxiety-	**8-17 5-17**	**Program will score using t-table**
Generalized Anxiety Disorder -7 (GAD-7)	**12+**	**child scale: 10**

The natural question when using a screening instrument is, "what score indicates a positive screen?" Another question is, what constitutes mild, moderate, or severe anxiety?" The answers are not straightforward. The instruments shown here have been validated over the indicated age range. Mean scores differ in healthy children over the age ranges, so the cutoffs differ as well. All the instruments have published tables of normal values and standard deviations from which a positive screen for a given age and gender can be determined. In clinical practice, approximate cut-offs combined with clinical assessment are appropriate.

Anxiety severity may be better defined in terms of functional impairment than by using specific score cutoffs. Shown here is a way to categorize anxiety severity by its impact on functioning and on somatic distress.



Course of Anxiety

- Often emerges in early childhood
- Can disappear and reemerge in new forms over the years
- May precede or morph into depression
- Represents high risk for substance use
- Co-occurs with and complicates asthma, gastrointestinal, neurologic, and other chronic disorders
- Can preclude developmental, academic, social functioning

Kids with anxiety may find that symptoms abate only to pop up again in a new way months or years later. Children with anxiety and their families need support in treating current anxiety and anticipatory guidance in preventing, recognizing, or addressing the next manifestation. These preventive and therapeutic techniques can alter the course of anxiety and reduce the potential harms outlined here.

To summarize: anxiety disorders appear in children in predictable patterns related to age and developmental tasks. Anxiety disorders tend to run in families. Knowing this, it is possible to anticipate the development of an anxiety disorder and intervene early. One form of early intervention is simply encouraging parents to help their children face fears and to not accommodate them.

Summary: Ages of Onset Risk

Summary: treatment options for anxiety and related disorders

	CBT	SSRI
Specific Phobia	X	
Selective Mutism	X	
Separation Anxiety Disorder	X	X
Generalized Anxiety Disorder	X	X
Social Anxiety Disorder	X	X
Panic Disorder	X	X
Adjustment disorder with anxiety	X	
Obsessive compulsive disorder	X	X
Post-traumatic stress disorder	X	

Our review of anxiety and related disorders has emphasized the roles of CBT and SSRIs in the treatment of anxiety. This is a simplification; there are other therapy types and other medications used, but CBT and SSRIs are the first line treatments for anxiety disorders in children and adolescents. This chart indicates which disorders have been shown to have superior response to combination therapy with an SSRI and CBT in randomized controlled trials.