

# PEDIATRIC ANXIETY

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# Learning Objectives

- Review evidence-based psychopharmacological treatments for pediatric anxiety disorders
- Review evidence-based non-pharmacological treatments for pediatric anxiety disorders
- Review the above and apply to case presentation

# What is Anxiety

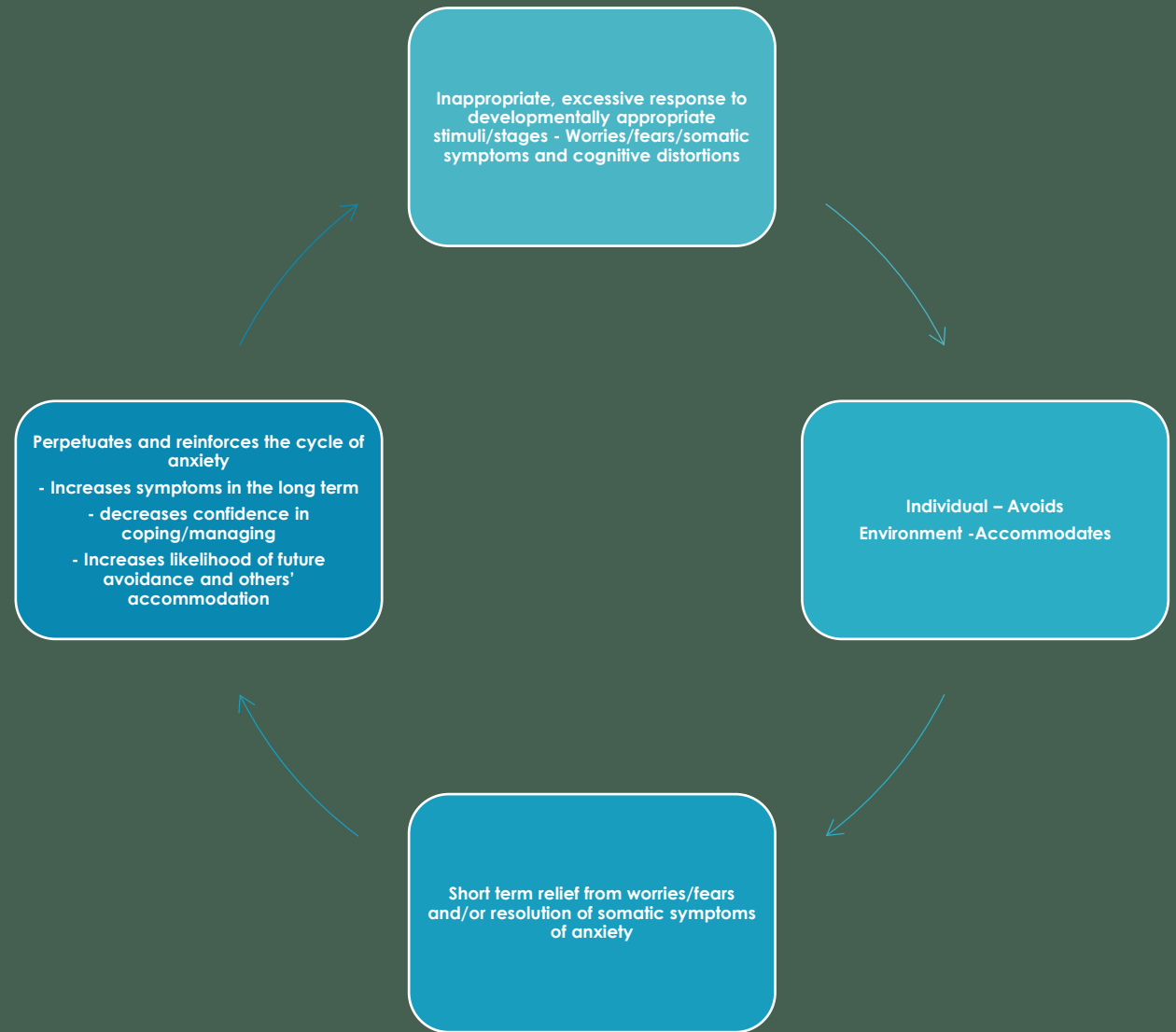


- A normal brain circuitry response to danger
  - In other words, a response to stimuli that an organism will actively attempt to avoid (a rattlesnake's rattle)
  - Protects an organism from threats (Fight, Flight, or Freeze response)
  - "threat detection system"
- A normal emotion to assist in planning for the future (i.e. taking a test, preparing a presentation)
- It is a normal emotion that begins in infancy and childhood and continues throughout life
- Not pathological when it is an adaptive response facilitating the avoidance of danger/threats or assisting with planning for the future
  - Anxiety presents for a reason in these circumstances, it is healthy, normal, and appropriate
    - Can even be severe and persistent but still appropriate and normal (i.e. middle east conflict, Ukraine, tariffs)
    - Mass shootings
- EVERY human being is going to experience anxiety some of the time at various points throughout one's life

# Differentiating anxiety disorder(s) vs. normative anxiety/worries/fears

- Is this an appropriate response to an environmental trigger/stressor?
  - Wars/conflict – Severe, persistent but nonetheless an appropriate response to an awful environmental situation
  - Tests, driving, riding your bike, giving a presentation – brief, adaptive response to appropriate/expected environmental situations
- Intensity
  - How intense is the anxiety or stress your child is experiencing? Does it seem more intense than what you might expect for someone that age in the same situation? Or is it in the range of what you might expect, but given that there are stressful things going on lately they've just been more anxious than usual?
- Frequency
  - Is it an issue more often than you'd like – almost every day, more days than not? Does the anxiety come up almost every time the person is faced with the situation or thing that disturbs them more than other kids?
- Interference (functional impairment)!!!
  - Is the anxiety getting in the way of your child's day-to-day activities or school functioning? Is it difficult to make new friends, keep friends, or enjoy time with friends? What about family relationships? Is anxiety making things tense at home where people are getting into arguments or feeling like they have to "work around" the anxiety? Finally, how much is it bothering your child? Does he seem very distressed because the anxiety is intense? Is your child noticing how difficult things are in different situations? Is it hard for your child to stop feeling anxious or to distract once it starts?
- Duration
  - Has it been going on longer than a few months? Does it last or cause problems even over the summer break in different ways than during the school year?

# THE CYCLE IN ANXIETY DISORDERS



# Pediatric Anxiety

- Anxiety Disorders are among the most common mental health disorders in children and adolescents
  - 7% of youth worldwide, at any one time, have an anxiety disorder
  - Lifetime prevalence of 20-30% in the US
- Median age of onset – 11 years of age
  - Separation Anxiety – Preschool/early school-age years (3-9)
  - Specific Phobias – school age years (6-12)
  - Social Anxiety – later school-age and early adolescent years (10-13)
  - Generalized Anxiety, Panic Attacks/Disorder, Agoraphobia – later adolescent years and young adulthood
  - Generally, anxiety disorders are likely to manifest first in the 6-12 age range
- “Clinically significant anxiety (ie, an anxiety disorder) must be distinguished from everyday worries and fears, which are common to the human experience and normative (even when exaggerated) in specific developmental stages (eg, being startled and exposure to strangers in infants, separation from caregiver in toddlers, supernatural creatures in preschoolers, physical well-being and natural disasters in school-aged children, and social and existential concerns in adolescents).”

- Avoidance is the dominant strategy/behavior an individual uses to reduce anxiety<sup>1</sup>
  - The longer this persists the more crippled a youth (or adult) becomes by their anxiety due to the loss of developmentally appropriate skill building
  - Treatment model at this stage requires not just a focus on reducing symptoms of the anxiety disorder but also requires rehabilitation to develop skills that were never learned/acquired
  - When maladaptive coping skills have evolved (SIB, substance use, etc.) due to longstanding untreated anxiety and associated developmental arrests, these also will benefit from targeted treatment in conjunction with above targets
- Gateway problem – untreated anxiety can lead to significant problems down the road (mood, academic, occupational, relationships)<sup>2</sup>
  - Developmental arrest
- Thus, early identification and treatment for anxiety disorders in childhood/adolescence plays a VITAL role in prevention of future impairment/disability
  - The majority of youth with anxiety disorders will never step foot in a community/specialty mental health clinic

1- Walkup, John T. "Pharmacological Treatment of Childhood Anxiety Disorders". Seattle, WA, October 2018, AACAP Annual Meeting

2- Dr. Nissen, host. "#9: Anxious kids? Listen to this. Professor Eli Lebowitz on SPACE, a new parent-based treatment for childhood and adolescent anxiety." Brain Health, episode 9, June 1<sup>st</sup> 2020.

# Diagnosing Anxiety Disorders

- Look to DSM-V criteria and focus on the following
  - Appropriate or inappropriate response to environmental stressors/triggers?
  - Intensity
  - Frequency
  - Interference
  - Duration
- Diagnostic criteria adjustments for youth
  - i.e. social anxiety in a youth needs to occur not just with adults but also with peers
  - Fear/anxiety may be expressed in different ways in children such as crying, tantrums, freezing, clinging, failing to speak in social situations
  - Duration differences – i.e. fear, anxiety, avoidance persists for at least 4 weeks in children and adolescents whereas is typically 6 months or more in adults for separation anxiety disorder



# Separation Anxiety Disorder

- A. Developmentally inappropriate and excessive fear or anxiety concerning separation from those to whom the individual is attached, as evidenced by at least three of the following:
1. Recurrent excessive distress when anticipating or experiencing separation from home or from major attachment figures.
  2. Persistent and excessive worry about losing major attachment figures or about possible harm to them, such as illness, injury, disasters, or death.
  3. Persistent and excessive worry about experiencing an untoward event (e.g., getting lost, being kidnapped, having an accident, becoming ill) that causes separation from a major attachment figure.
  4. Persistent reluctance or refusal to go out, away from home, to school, to work, or elsewhere because of fear of separation. The fear, anxiety, or avoidance is persistent, lasting at least 4 weeks in children and adolescents and typically 6 months or more in adult
  5. Persistent and excessive fear of or reluctance about being alone or without major attachment figures at home or in other settings.
  6. Persistent reluctance or refusal to sleep away from home or to go to sleep without being near a major attachment figure.
  7. Repeated nightmares involving the theme of separation
  8. Repeated complaints of physical symptoms (such as headaches, stomachaches, nausea, or vomiting) when separation from major attachment figures occurs or is anticipated
- B. The fear, anxiety, or avoidance is persistent, lasting at least 4 weeks in children and adolescents and typically 6 months or more in adults.
- C. The disturbance causes clinically significant distress or impairment in social, academic (occupational), or other important areas of functioning.
- D. The disturbance is not better explained by another mental disorder, such as refusing to leave home because of excessive resistance to change in autism spectrum disorder; delusions or hallucinations concerning separation in psychotic disorders; refusal to go outside without a trusted companion in agoraphobia; worries about ill health or other harm befalling significant others in generalized anxiety disorder; or concerns about having an illness in illness anxiety disorder.

# Selective Mutism

- A. Consistent failure to speak in specific social situations in which there is an expectation for speaking (e.g., at school) despite speaking in other situations
  - B. The disturbance interferes with educational or occupational achievement or with social communication
  - C. The duration of the disturbance is at least 1 month (not limited to the first month of school)
  - D. The failure to speak is not attributable to a lack of knowledge of, or comfort with, the spoken language required in the social situation
  - E. The disturbance is not better explained by a communication disorder (e.g., childhood-onset fluency disorder) and does not occur exclusively during the course of autism spectrum disorder, schizophrenia, or another psychotic disorder
- 
- Typical onset around age 2-4
  - Often unrecognized until child enters school

# Specific Phobia

- A. Marked fear or anxiety about a specific object or situation (e.g. 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 6 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 obsessive-compulsive disorder); reminders of traumatic events (as in posttraumatic stress disorder); separation from home or attachment figures (as in separation anxiety disorder); or social situations (as in social anxiety disorder).

Specify type: Animal Type (e.g., spiders, insects, dogs)

Specify type: Natural Environment Type (e.g., heights, storms, water)

Specify type: Blood-Injection-Injury Type (e.g., needles, invasive medical procedures)

Specify type: Situational Type (e.g., airplanes, elevators, enclosed places)

Specify type: Other Type (e.g., phobic avoidance of situations that may lead to choking, vomiting, or contracting an illness; in children, avoidance of loud sounds or costumed characters)

# Social Anxiety Disorder/Social Phobia

- 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 (e.g., having a conversation, meeting unfamiliar people), being observed (e.g., eating or drinking), and performing in front of others (e.g., giving a speech).  
**Note:** In children, the anxiety must occur in peer settings and not just during interactions with adults.
- B. The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e., 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 6 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 (e.g., 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 (e.g., Parkinson's 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.

# 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 (e.g., 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 1 month (or more) of one or both of the following:

1. Persistent concern or worry about additional panic attacks or their consequences (e.g., losing control, having a heart attack, "going crazy").
2. A significant maladaptive change in behavior related to the attacks (e.g., 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 (e.g., a drug of abuse, a medication) or another medical condition (e.g., hyperthyroidism, cardiopulmonary disorders).

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

# Panic Attack Specifier

**Note:** Symptoms are presented for the purpose of identifying a panic attack; however, panic attack is not a mental disorder and cannot be coded. Panic attacks can occur in the context of any anxiety disorder as well as other mental disorders (e.g. depressive disorders, posttraumatic stress disorder, substance use disorders) and some medical conditions (e.g., cardiac, respiratory, vestibular, gastrointestinal). When the presence of a panic attack is identified, it should be noted as a specifier (e.g., "posttraumatic stress disorder with panic attacks"). For panic disorder, the presence of panic attack is contained within the criteria for the disorder and panic attack is not used as a specifier.

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
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**Note:** Culture-specific symptoms (e.g., tinnitus, neck soreness, headache, uncontrollable screaming or crying) may be seen. Such symptoms should not count as one of the four required symptoms.

# Agoraphobia

A. marked fear or anxiety about two (or more) of the following five situations:

1. Using public transportation
2. Being in open spaces
3. Being in enclosed spaces (e.g., shops, theaters, cinemas)
4. Standing in line or being in a crowd
5. Being outside 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.

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 6 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 (e.g., inflammatory bowel disease, Parkinson's disease) is present, the fear, anxiety, or avoidance is clearly excessive.

I. The anxiety or phobic avoidance is not better accounted for by 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 obsessive-compulsive disorder), perceived defects or flaws in physical appearance (as in body dysmorphic disorder), reminders of traumatic events (as in posttraumatic stress disorder), or fear of separation (as in separation anxiety disorder).

**Note:** 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.

# Generalized Anxiety Disorder

- A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance).
- B. The person 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 present for more days than not for the past 6 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 (e.g., a drug of abuse, a medication) or another medical condition (e.g., hyperthyroidism).
- F. The disturbance is not better explained by another mental disorder (e.g., 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, separation from attachment figures in separation anxiety disorder, reminders of traumatic events in posttraumatic stress disorder, 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).



# Additional DSM-V Anxiety Disorders

- Substance/Medication Induced Anxiety Disorder
- Anxiety Disorder Due to Another Medical Condition
- Other Specified Anxiety Disorder
- Unspecified Anxiety Disorder

# Obsessive Compulsive And Related Disorders

- Separate class in DSM-V
  - DSM-IV under anxiety disorders
- 76% of adults with OCD have a lifetime diagnosis of an anxiety disorder
  - Recurrent and unwanted, intrusive thoughts/urges/impulses do not usually involve real-life concerns and can include content that is odd, irrational, or seemingly magical in nature. Moreover, compulsions are usually present and usually linked to the obsession(s).
  - With anxiety disorders, such as generalized anxiety, the recurrent thoughts, avoidant behaviors, and repetitive requests for reassurance are typically about real-life concerns.
- Additional diagnoses under this class:
  - Body Dysmorphic Disorder
  - Hoarding Disorder
  - Trichotillomania
  - Excoriation (Skin-Picking) Disorder
  - Substance/Medication Induced Obsessive Compulsive and Related Disorder
  - Obsessive Compulsive and Related Disorder Due to Another Medical Condition
    - i.e. striatal damage due to cerebral infarction
  - Other Specified Obsessive-Compulsive and Related Disorder
  - Unspecified Obsessive-Compulsive and Related Disorder

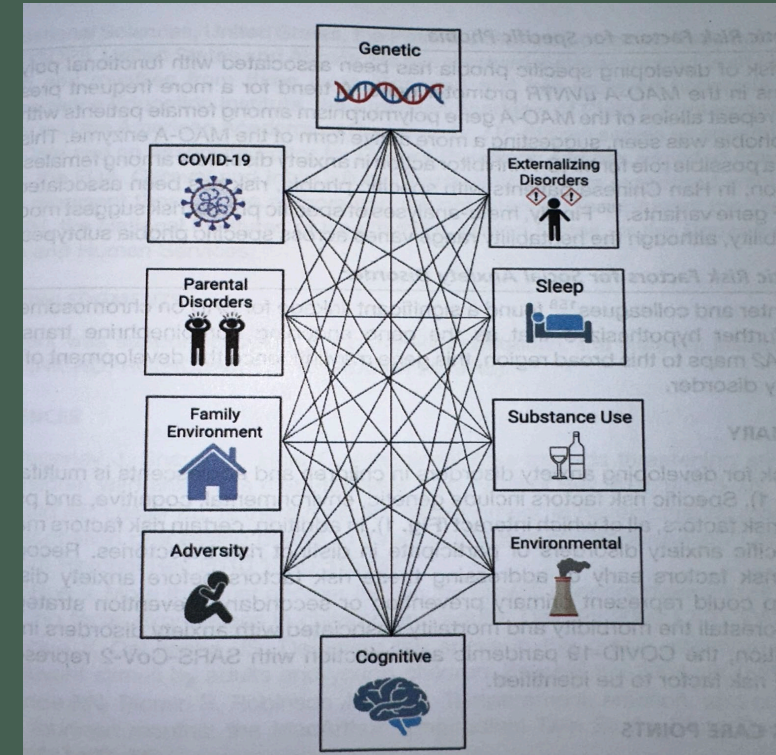
# U.S. Preventive Services Task Force<sup>1</sup>

- October 11, 2022 they concluded “with moderate certainty that screening for anxiety in children and adolescents aged 8 to 18 years has a moderate net benefit”.
- Evidence was insufficient on screening for anxiety in children 7 years or younger.
- “The optimal interval is unknown” but “repeated screening may be most productive in adolescents with risk factors for anxiety”.
- “Not all of the screening instruments are feasible for use in primary care settings because of length. Currently, only 2 screening instruments are widely used in clinical practice for detecting anxiety: SCARED and Social Phobia Inventory.”

<sup>1</sup> <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/screening-anxiety-children-adolescents#fullrecommendationstart> accessed 6/13/23

# Pediatric Anxiety Risk Factors

- Cognitive
  - Threat bias
  - Behavioral Inhibition
  - Distress Intolerance
  - Anxiety Sensitivity
  - Intolerance of Uncertainty
  - Repetitive Negative Thinking
  - Executive Functioning
- Parental Disorders
  - Parental Internalizing Disorders
  - Parental Social Anxiety
  - Parental Personality (Cluster A and C personality)
- Family Environment
  - Overcontrolling Environment
  - Demandingness and Warmth
  - Parenting Style (Authoritarian)
  - Attachment Style (Insecure)
- Adversity
  - ACEs
  - Chronic stress
  - Socioeconomic status
  - Bullying
  - Externalizing Disorders (ODD, ADHD, CD)
  - ADHD (most significant externalizing disorder associated with anxiety risk)
  - Sleep Disturbances (Sleep and Anxiety mutually influence one another)
  - Substance Use
  - Environmental exposures
- Genetic Risk Factors
  - Many different genes
  - Biologically based hypersensitivity respiratory control system in panic disorder\*



Warner EN, Strawn JR. Risk Factors for Pediatric Anxiety Disorders. Child Adolesc Psychiatr Clin N Am. 2023 Jul;32(3):485-510. doi: 10.1016/j.chc.2022.10.001. Epub 2023 Feb 26. PMID: 37201963.

\* Papp LA, Klein DF, Gorman JM. Carbon dioxide hypersensitivity, hyperventilation, and panic disorder. Am J Psychiatry. 1993 Aug;150(8):1149-57. doi: 10.1176/ajp.150.8.1149. PMID: 8392296.

# Organic Causes of Anxiety (not exhaustive)

- Hyperthyroidism
- Asthma
- Diabetes
- Migraine
- Chronic pain/illness
- Lead intoxication
- Hypoglycemia
- Pheochromocytoma
- Cardiac arrhythmias
- SLE
- Dysmenorrhea
- Licit and illicit substance ingestion/use/withdrawal (caffeine, cannabis, cocaine, methamphetamine, anabolic steroids, hallucinogens/psychedelics, nicotine)
- Prescribed medications – bronchodilators, nasal decongestants, sympathomimetics, antihistamines, steroids, supplements, stimulants, antidepressants, antipsychotics, withdrawal from benzodiazepines
- Anxious youth are also known to more likely present with a variety of health problems which can be coincidental but also can be causal

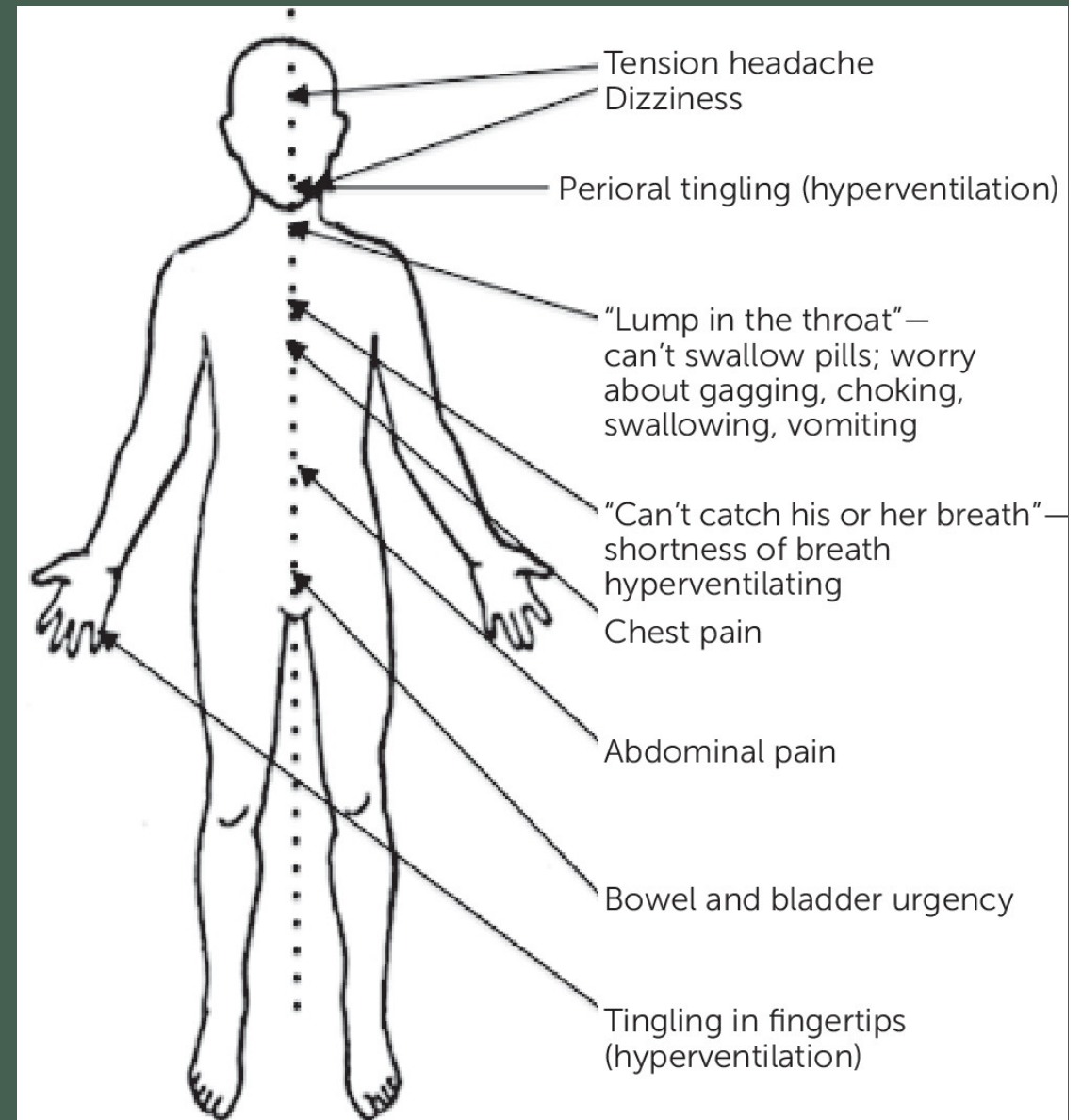
# Comorbidities

- Other anxiety disorders
- Depression
- ADHD
- Bipolar Disorder
- Obsessive Compulsive Disorder
- Eating Disorders
- Developmental and Communication Disorders
- Substance Use Disorders
- Adverse Childhood Experiences
- PTSD
- Subthreshold PTSD – Other Specified Trauma and Stressor Related Disorder

Walter, Heather J. et al. Clinical Practice Guideline for the Assessment and Treatment of Children and Adolescents With Anxiety Disorders. J Am Acad Child Adolesc Psychiatry 2020;59(10):1107–1124.

# Somatic Symptoms

- When youth present with marked somatic complaints and no medical cause to be found....
- Midline physical symptoms are characteristic of anxiety disorders





**TABLE 3**  
Somatic Symptoms (Percentage Yes) by Diagnosis

	% Yes					
	SOP− ( <i>n</i> = 44)	SOP+ ( <i>n</i> = 84)	GAD− ( <i>n</i> = 65)	GAD+ ( <i>n</i> = 73)	SAD− ( <i>n</i> = 52)	SAD+ ( <i>n</i> = 76)
Restlessness	75.0	73.8	56.4	87.7***	63.5	81.6*
Feels sick to stomach	75.0	67.5	53.7	82.2***	56.9	78.9**
Blushing	43.2	54.8	47.3	53.4	55.8	47.4
Palpitations	52.3	45.8	38.9	54.8	35.3	56.6*
Muscle tension	54.5	40.2	37.0	51.4	46.3	46.7
Sweating	27.3	54.2**	40.0	48.6	51.9	40.0
Trembling or shaking	45.5	41.7	40.0	45.2	48.1	39.5
Easily fatigued	31.8	36.9	29.1	39.7	32.7	36.8
Feels paralyzed	25.0	34.9	32.7	30.6	35.3	28.9
Chills or hot flashes	30.2	31.3	20.0	39.4*	24.0	35.5
Difficulty breathing	27.3	26.5	18.5	32.9	21.6	30.3
Recurrent urge bathroom	25.6	25.0	18.2	30.6	15.4	32.0
Feels dizzy	20.5	27.4	16.4	31.5	25.0	25.0
Chest pain or discomfort	18.2	19.0	10.9	24.7	13.5	22.4
Problem swallowing	27.3	11.9*	10.9	21.9	15.4	18.4
Paresthesias	13.6	14.3	9.1	17.8	17.3	11.8
Total no. (SD) of SSs	5.9 (3.2)	6.0 (3.7)	4.8 (3.3)	6.9*** (3.4)	5.5 (3.3)	6.3 (3.6)

*Note:* SOP = social phobia; GAD = generalized anxiety disorder; SAD = separation anxiety disorder; SSs = somatic symptoms.  
\**p* < 0.05; \*\**p* < 0.01; \*\*\**p* < 0.001.

**TABLE 4**

Somatic Symptoms by Treatment Group, Time

Symptom	Baseline		Posttreatment		Pre-/Post-Change <sup>a</sup>		Luvox vs. Placebo <sup>b</sup> (Post)
	( <i>n</i> = 63) Luvox	( <i>n</i> = 65) Placebo	Luvox	Placebo	Luvox	Placebo	
Restlessness	73.0	75.4	39.3	50.8	***	***	—
Feels sick to stomach	66.1	73.8	26.2	40.3	***	***	—
Blushing	50.8	50.8	18.0	35.5	***	*	*
Palpitations	50.8	49.2	16.4	35.5	***	*	*
Muscle tension	46.8	47.7	14.8	34.4	***		*
Sweating	44.4	45.3	13.1	32.3	***		**
Trembling or shaking	38.1	40.0	13.1	30.6	***	*	—
Easily fatigued	33.8	38.5	13.1	27.9			—
Feels paralyzed	32.3	32.3	11.7	25.8	***		**
Chills or hot flashes	30.6	30.8	9.8	14.5	***		**
Difficulty breathing	29.5	27.7	9.8	11.3	*	*	—
Recurrent urge bathroom	28.6	23.1	8.2	9.7		*	—
Feels dizzy	22.6	23.1	6.6	8.1	**	*	—
Chest pain or discomfort	17.5	21.5	4.9	6.5	*	**	—
Problems swallowing	15.9	20.0	4.9	3.2		*	—
Paresthesias	11.1	12.3	1.6	2.1	*		—
Total score							
Mean	5.9	6.1	2.0	3.9	***	***	***
SD	3.6	3.4	2.3	3.1			

<sup>a</sup> Significance level of change in rates from pre- to posttreatment

<sup>b</sup> Significance level for difference in rates at posttreatment.

\**p* < .05; \*\**p* < .01; \*\*\**p* < .001.



# Treatments in Pediatric Anxiety Disorders

- Psychopharmacology
  - SSRIs – Escitalopram, fluoxetine, sertraline
  - SNRIs - Duloxetine
- Psychotherapy
  - CBT
    - Relaxation/Distress tolerance – works on reducing/managing sx's related physiologic arousal
    - Cognitive Restructuring - works on reducing/managing distorted anxious thinking
    - Exposure – works on reducing avoidance behaviors
  - SPACE
    - Accommodation – behaviors that caregivers use to decrease their child's anxiety (changes in caregivers' behaviors because of their child/teen/young adult's anxiety)
    - Parent/Adult Caregiver work
  - Brief Behavioral Therapy (BBT) – relaxation skill building with eventual exposure work, problem solving skills
  - PEERS group – Developed at UCLA primarily for those with ASD to build social skills/competence
  - Social Effectiveness Therapy for Children (SET-C) for social anxiety/social phobia. This is a group-based intervention, not individual therapy
    - One study from 2007 showed more effective than fluoxetine in decreasing anxiety, enhancing social competence – i.e. helps a youth build their social skills!
- Choice of treatment involves shared decision making between physician/clinical provider, the youth, and family.
  - Mild distress/impairment – psychotherapy first good consideration
  - Moderate/Severe distress/impairment – more nuanced decision though ideally combined treatment
  - Availability of treatments in the community
    - Waitlists
    - Additional considerations (insurance coverage/cost, time off work for parents/caregivers, transportation, etc)

# Non-pharmacological interventions

- Cognitive Behavioral Therapy (CBT) is considered gold standard
- Supportive Parenting for Anxious Childhood Emotions (SPACE)
  - Does not involve the child or teen, only requires parent/caregiver involvement



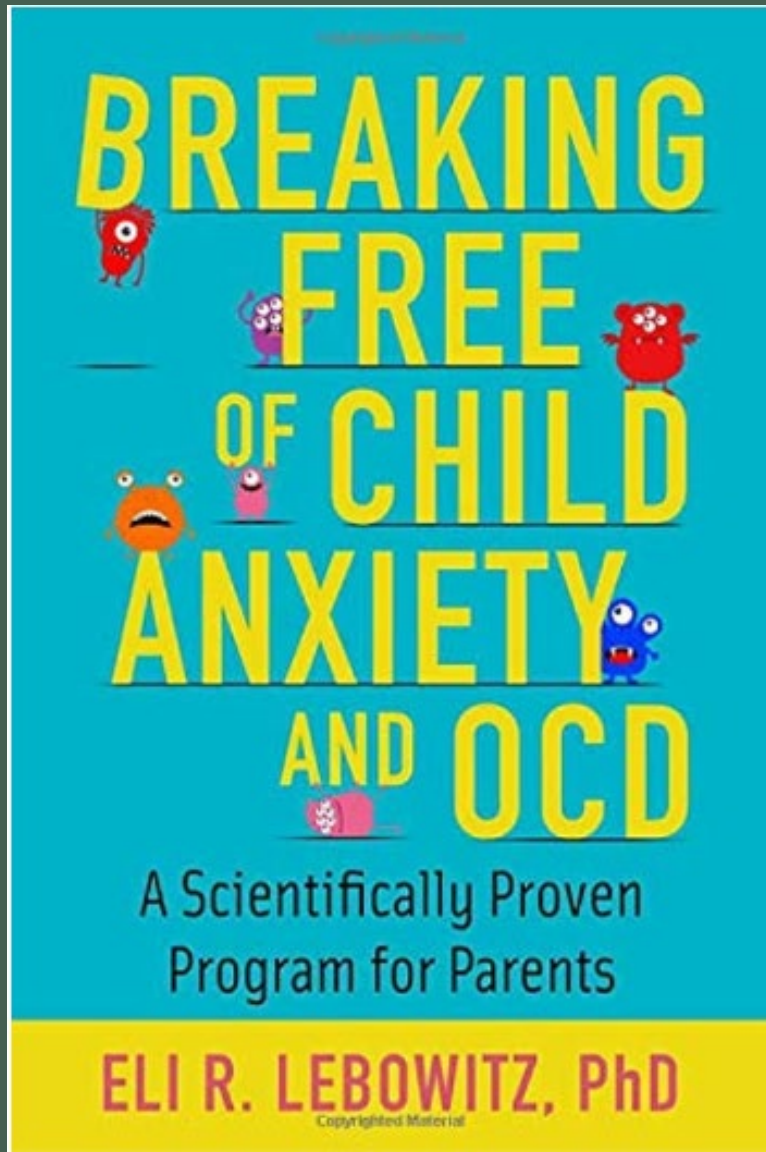
## NEW RESEARCH

### **Parent-Based Treatment as Efficacious as Cognitive-Behavioral Therapy for Childhood Anxiety: A Randomized Noninferiority Study of Supportive Parenting for Anxious Childhood Emotions**

Eli R. Lebowitz, PhD, Carla Marin, PhD, Alyssa Martino, MS, Yaara Shimshoni, PhD, Wendy K. Silverman, PhD

# Supportive Parenting for Anxious Childhood Emotions (SPACE)

- Past studies looked at adding a parent component in CBT to improve outcomes
  - Most studies found working with parents did not increase efficacy compared to only working with the youth alone in CBT
- SPACE takes a different approach in working primarily or solely with parents/caregivers
- SPACE treatment focuses on one KEY difference in how children respond to anxiety compared to adults
  - The mammalian response to fear/threat in young is to then signal to a caregiver who hopefully can then step in to provide protection, soothing, and regulation
  - Children look to parents for help in coping with fear
  - Parents respond to fear/anxiety signals from their children
  - This is an innate, biologically driven response in all mammalian infants/young INCLUDING humans
- Parents do NOT cause anxiety in children in the VAST majority of cases
- ***This treatment targets parental responses to their child's anxious signals***
  - Sometimes, parent's responses can perpetuate anxiety
  - Parents tend to be deeply involved in their child's anxiety



- Parent book with step-by-step guide to implementing SPACE on one's own
- [www.spacetreatment.net](http://www.spacetreatment.net)
  - Can look up SPACE trained providers

Rebekah	Bickford	East Baldwin	Maine	4024	United States of America	207-400-4370	bekah@grc
James	Claiborn	Portland	Maine	04103	United States of America	207-799-0408	anxiety
Britt	Evans	Portland	Maine	04101	United States of America	207-200-3092	bevans@Bost
Alicia	Hoffman	Portland	Maine	04102	United States of America	207-317-0006	
Laura	Kavesh	Portland	Maine	04096	United States of America	207-662-4373	kav
Kelly	Kleinman	Yarmouth	Maine	04096	United States of America	207-712-1131	kelly@ke
Laurie	Wellman	Bar Harbor	Maine	04609	United States of America	207-266-0765	wellma

# Psychopharmacological Interventions

- Anxiety is NOT a result of a deficiency in or deficit of neurotransmitters (serotonin, norepinephrine)
  - it is more complex than this debunked neurotransmitter deficit hypothesis
    - However, neurotransmitters DO play a vital role in the brain modulating fear, worry, stress, and facilitating cognitive processing of such emotions
- The SNRI, Duloxetine, was the only FDA approved medication for treatment of an anxiety disorder in youth 7 years or older (Generalized Anxiety Disorder) until May 2023
  - Does not equate with this being your first line medication treatment
  - Generally, a 2<sup>nd</sup> if not 3<sup>rd</sup> line medication consideration
- SSRIs remain first line treatment
  - Unlike in adults, generally also considered as a 2<sup>nd</sup> line treatment when not responding to the 1<sup>st</sup> SSRI
  - Escitalopram/Lexapro is the only SSRI FDA approved for a pediatric anxiety disorder (May 2023 for GAD)
    - OCD no longer under anxiety disorders in DSM-V
  - Other SSRIs are “off-label” for anxiety although there is robust evidence base supporting their use and efficacy
- 2019 Network meta-analysis of 22 RCTs of SNRIs, SSRIs, TCAs, benzodiazepines, buspirone, and guanfacine in youth with anxiety disorders revealed SSRIs were the MOST EFFECTIVE class of medications

# Psychopharmacological Interventions continued

- Most SSRIs are dosed daily
  - Exception being higher doses of fluvoxamine
- Response may be seen around 2 weeks after treatment initiation with clinically significant improvement appearing by week 6 and maximal improvement at week 12 or later.
  - More recent data supports improvement may be more rapid with higher dose treatment compared to low dose
- Accumulating data suggests SSRIs may be associated with a greater magnitude of treatment response and a more rapid treatment response compared to SNRIs in the pediatric population\*
  - Serotonin system matures earlier than the noradrenergic system
  - GAD pathophysiology may involve more serotonergic dysfunction relative to noradrenergic dysfunction

McVoy, M., & Findling, R. L. (2017). *Clinical Manual of Child and Adolescent Psychopharmacology*. American Psychiatric Pub.

\* Strawn JR, Geracioli L, Rajdev N, Clemenza K, Levine A. Pharmacotherapy for generalized anxiety disorder in adult and pediatric patients: an evidence-based treatment review. *Expert Opin Pharmacother*. 2018 Jul;19(10):1057-1070. doi: 10.1080/14656566.2018.1491966. PMID: 30056792; PMCID: PMC6340395.

# Child-Adolescent Anxiety Multimodal Study (CAMS)

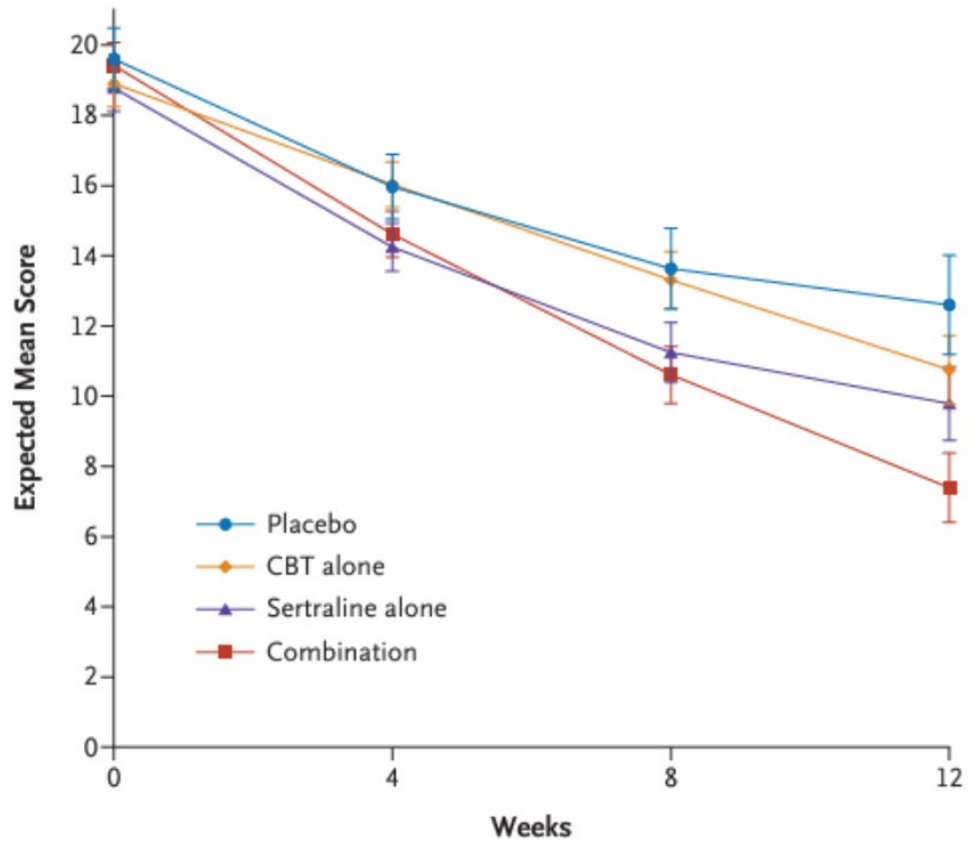
NEW RESEARCH

## 24- and 36-Week Outcomes for the Child/Adolescent Anxiety Multimodal Study (CAMS)

John Piacentini, PhD, Shannon Bennett, PhD, Scott N. Compton, PhD, Phillip C. Kendall, PhD, Boris Birmaher, MD, Anne Marie Albano, PhD, John March, MD, MPH, Joel Sherrill, PhD, Dara Sakolsky, MD, Golda Ginsburg, PhD, Moira Rynn, MD, R. Lindsey Bergman, PhD, Elizabeth Gosch, PhD, Bruce Waslick, MD, Satish Iyengar, PhD, James McCracken, MD, John Walkup, MD

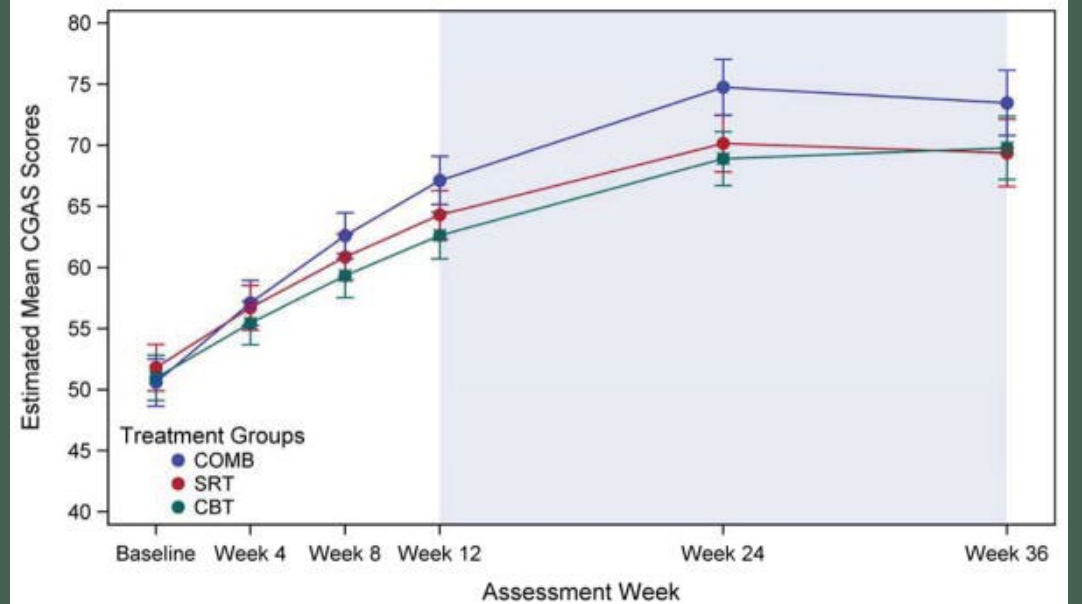
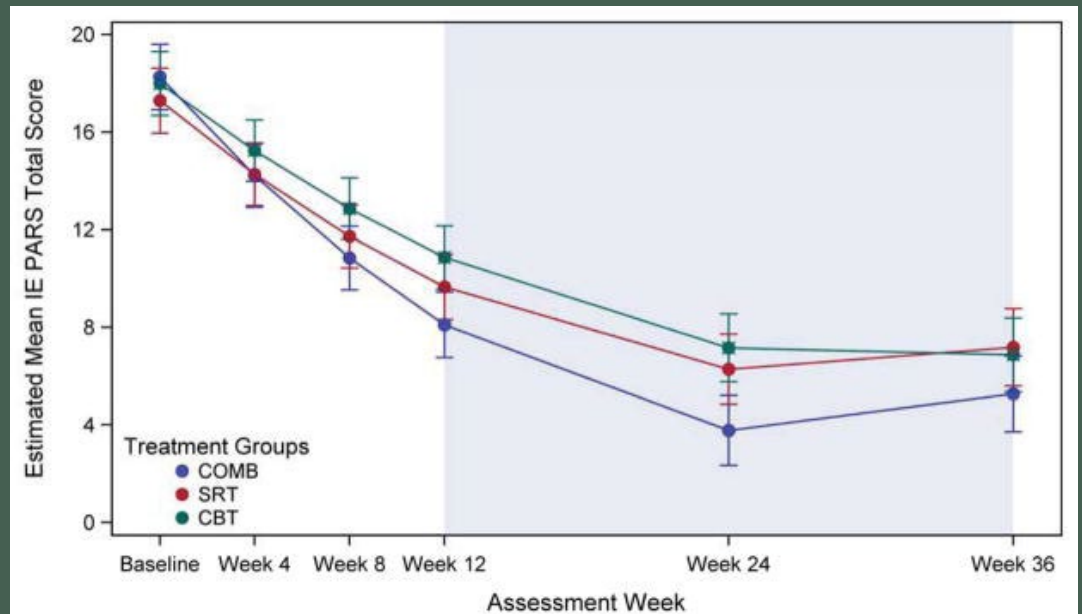
- Two phases, Phase I published in 2008 in NEJM and Phase II in JAACAP 2013
  - Largest RCT comparing CBT, an SSRI, and their combination for child anxiety (separation anxiety disorder, generalized anxiety disorder, and/or social phobia/social anxiety)
  - 488 youth who underwent randomization to CBT only, Sertraline only, CBT and Sertraline, or placebo for 12 weeks
  - Combination treatment (Sertraline plus CBT) more effective than either alone
    - At week 12, response rates (very much improved or much improved) were 80.7% for combined treatment, 59.7% for CBT alone, 54.9% for sertraline alone, 23.7% in placebo group
    - Effect sizes of 0.86 for COMB tx, 0.45 for sertraline only, 0.31 for CBT
    - *"Importantly CAMS documented a relatively low placebo response rate, suggesting close monitoring and supportive care is ineffective for the vast majority of children with anxiety disorders"*<sup>1</sup>
    - Critique of this study is that there was no CBT plus placebo group to control for expectancy effects
  - Mean SERTRALINE dosages in this study at final visits
    - Combined CBT group = 134mg
    - Sertraline alone = 146mg
    - Placebo group = 175mg
- CAMELS published in 2018 (4-12 year year f/u post randomization from CAMS)
  - 22% stable remission
    - Pre-treatment predictors of stable remission included higher general functioning and parents endorsing positive family interactions (open communication, trust, fair punishments)
    - Fewer negative life events between original CAMS study and f/u also more likely to be in stable remission
  - 30% chronically ill
  - 48% relapsers
  - *"Findings suggest that acute positive response to anxiety treatment may reduce risk for chronic anxiety disability"* ( $p < .02$ )





**Figure 2. Scores on the Pediatric Anxiety Rating Scale during the 12-Week Study.**

Scores on the Pediatric Anxiety Rating Scale range from 0 to 30, with scores higher than 13 consistent with moderate levels of anxiety and a diagnosis of an anxiety disorder. The expected mean score is the mean of the sampling distribution of the mean. The I bars represent standard errors.





# Anxiety Intervention in Primary Care

- Pharmacotherapy

1. Start at a low dose and titrate every 2-4 weeks until symptoms remit or side effects are emerging
  - ***Recent data shows that improvement emerges within 2 weeks of starting treatment and may occur more quickly with high-dose treatment compared with low dose***
2. Follow up within 4 weeks after initial dose is started, increase dose every 4 weeks until significant improvement or side effects are encountered (more frequently if not in therapy and/or additional concerns)
3. SSRIs show a more rapid rate of improvement and overall greater magnitude of response compared with SNRIs
4. For prepubertal patients, decrease starting dose by ½ and aim for 2/3 of the typical maximum dose for older patients
5. If symptoms are not controlled by the maximum tolerable dose, cross-taper to a second trial with an alternate SSRI.
6. Track efficacy with repeated standardized measures
7. If no improvement, reconsider diagnosis, ask about frequency of missed doses, consider comorbid illness, inquire about substance use, and consider referral to psychiatric evaluation or consultation
8. Once remission is achieved, most patients benefit from continuing on medication for 6-12 months to prevent relapse. During a period of stability, periodic attempts at discontinuation should be made with a gradual taper. If anxiety returns as the dose is lowered, slowing or reversing the taper can restabilize symptoms.

Generic Name	Trade Name	FDA Youth Indication(s), y	Initial Dose, mg	Max DD, mg	Dosing Frequency	Available Unit Dose Forms
Fluoxetine	Prozac	MDD; 8–17	10–20 (5–10 <sup>a</sup> )	20	Daily	Capsules and tablets: 10, 20, and 40 mg Weekly capsules: 90 mg Oral solution: 4 mg/mL
		OCD; 7–17				
Escitalopram	Lexapro	MDD; 12–17	10 mg (2.5–10 <sup>a</sup> )	20	Daily	Tablets: 5, 10 (scored), and 20 (scored) mg Oral solution: 1 mg/mL
Sertraline	Zoloft	OCD; 6–17	6–12 years: 25 (12.5–25 <sup>a</sup> ) 13–17 years: 50	200	Daily	Scored tablets: 25, 50, and 100 mg Oral solution: 20 mg/mL
Fluvoxamine	NA in United States	OCD; 8–17	25 (12.5–25 <sup>a</sup> )	8–11 years: 200 12–17 years: 300	Twice a day <sup>b</sup>	Tablets: 25, 50, and 100 mg
Duloxetine <sup>c</sup>	Cymbalta	GAD; 7–17	30	120 (60 <sup>a</sup> )	Daily	Delayed-release capsules: 20, 30, and 60 mg The capsule should not be opened, crushed, or chewed.

Abbreviations: FDA, US Food and Drug Administration; GAD, generalized anxiety disorder; max DD, maximum recommended daily dose based on FDA-approved package insert; MDD, major depressive disorder; NA, not available; OCD, obsessive-compulsive disorder.

<sup>a</sup> Author's recommendation.

<sup>b</sup> Divided doses (twice a day) if total daily dose is more than 50 mg.

<sup>c</sup> Serotonin norepinephrine reuptake inhibitor.

Classified using US Food and Drug Administration. Drugs@FDA: FDA-approved drugs. <https://www.accessdata.fda.gov/scripts/cder/drugsatfda>. Accessed March 9, 2021.

# SNRIs

- From 2017 AHRQ/Mayo Clinic systematic review only had enough data to evaluate venlafaxine and duloxetine. Insufficient data for other SNRIs (desvenlafaxine, levomilnacipran).
  - 4 RCTs comparing to placebo in 911 youth ages 6-17
  - SNRIs as a class improved anxiety symptoms based on clinician report measure but not parent report or global functioning measures
- Same risks as SSRIs with additional side effects of sustained clinical hypertension, elevated BP, elevated HR
  - Two studies indicate Venlafaxine may be associated with greater suicide risk than other SNRIs

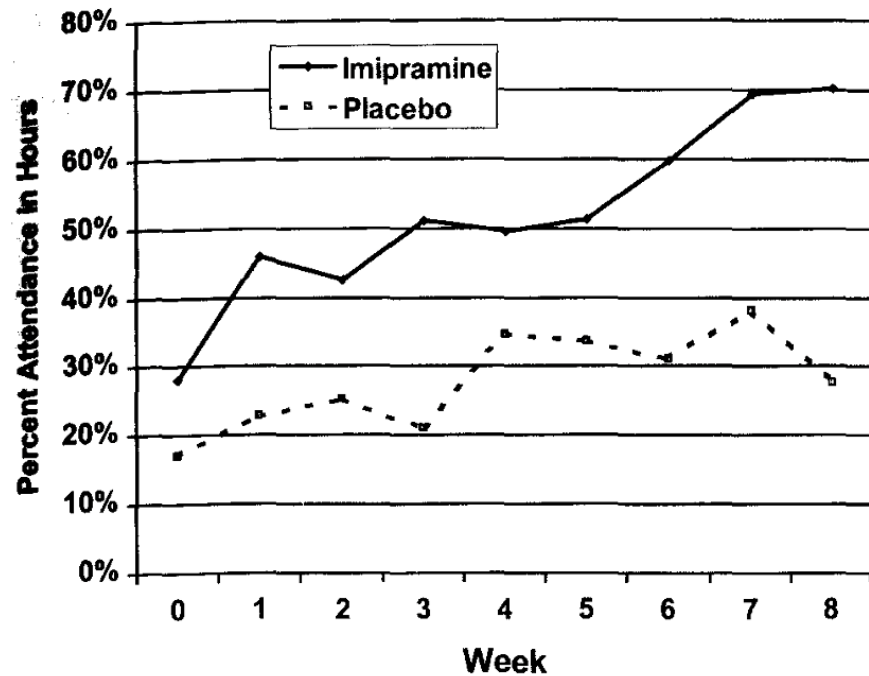
# Safety of SSRIs/SNRIs

- Most common side effects of serotonergic medications are GI related (GI discomfort, diarrhea, constipation, nausea, vomiting, GERD)
  - GI system has a large number of serotonin receptors in the body
  - Typically subside 3-7 days after initiation
- Activation – motor/mental restlessness, insomnia, impulsiveness, aggression, disinhibition, talkativeness
  - More likely to occur in the first month of treatment whereas mania/hypomania likely to appear later
  - More common in younger children than adolescents
  - Presents after medication initiation, dose increases, or use of medications that could inhibit metabolism of SSRI/SNRIs
  - Activation typically improves/resolves after decreasing dose or discontinuing
  - Mania more likely to persist and require additional pharmacological intervention
  - Important to educate parents/guardians and patients about this potential side effect

# Black Box Warning

- FDA issued boxed warning 10/2004 that all antidepressants can increase suicidal thinking and behavior in individuals <25 years of age
  - Panel reviewed 25 drug trials (16 involving depression) involving ~4,000 pediatric patients
  - 109 “possibly suicide-related” events identified
  - Average risk of such events in their pooled analysis: 4% on active drug, 2% on placebo
  - No completed suicides
- Olfson et al. 2003 looked at 10-19 year olds and antidepressant medication use between 1990-2000
  - 1% increase in antidepressant use associated with a decrease of 0.23 suicides per 100,000 adolescents aged 10-19 per year
- 1985-1999 general suicide completion rates decline 13% accompanied by a 4-fold increase in rates of SSRI and other newer antidepressant prescriptions
- When related, evidence supports highest risk in the 2-4 week window after starting one of these medications or increasing the dose
  - Informed consent

# School Refusal



**Fig. 1** Mean school attendance in percentage of hours attended during the 8-week treatment study.

- Imipramine plus CBT vs. placebo plus CBT in adolescents with co-morbid anxiety and depressive disorders (47 completed the study, 16 drop outs)
- Medication only group not included due to past experience with persistent high symptomatology without concurrent therapy and thus higher drop-out rates
- Participants had at least 1 anxiety disorder AND MDD
- Youth with ADHD, conduct disorder, bipolar disorder, eating disorder(s), substance use disorder(s), and/or intellectual disability excluded

**TABLE 1**  
Outcome Measures Across the Treatment Period for the Imipramine and Placebo Groups

Measure/ Treatment Group	Baseline <sup>a</sup>		Week 2		Week 4		Week 6		Week 8		Imipramine vs. Placebo
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
School attendance (%)											
Imipramine	28.0	30.6	42.5	33.3	49.5	43.1	59.8	27.8	70.1	30.6	<i>p</i> = .017 <sup>b</sup>
Placebo	17.1	33.8	25.3	30.3	34.8	38.2	31.0	37.0	27.6	36.1	
ARC-R											
Imipramine	11.2	5.1	12.5	5.5	11.2	5.4	9.7	5.2	8.3	5.4	NS
Placebo	13.9	4.7	14.1	7.6	12.3	8.2	12.8	8.4	12.1	7.0	
CDRS-R											
Imipramine	46.8	9.5	43.5	12.9	41.9	8.7	38.8	7.4	34.6	8.9	<i>p</i> = .037 <sup>c</sup>
Placebo	52.5	10.8	47.3	15.6	45.1	13.5	46.3	12.1	45.7	16.5	
RCMAS											
Imipramine	11.2	5.6			8.2	5.3			6.2	4.0	NS
Placebo	15.0	6.2			13.0	7.7			10.7	7.5	
BDI											
Imipramine	12.2	10.1			8.5	7.6			6.4	8.3	NS
Placebo	15.7	11.3			14.7	10.8			9.8	7.8	

*Note:* Values for school attendance represent percentage of hours attended during the 8-week treatment study. ARC-R = Anxiety Rating for Children-Revised; CDRS-R = Children's Depression Rating Scale-Revised; RCMAS = Revised Children's Manifest Anxiety Scale; BDI = Beck Depression Inventory; NS = not significant.

<sup>a</sup> Postplacebo washout.

<sup>b</sup> Effect size: Cohen  $d = 0.287$ .

<sup>c</sup> Effect size: Cohen  $d = 0.333$ .

# ASD and Anxiety Disorders

- A 2021 prospective study revealed 69% of youth with ASD had clinically significant anxiety compared to 8% of typically developing children
  - 39.6% of ASD youth had at least one co-occurring anxiety disorder from 2011 meta-analysis
- Signs and Symptoms are highly varied in this population
  - Fear of change – can manifest as distress/anxiety when routines or environments are disrupted
  - Uncommon phobias – sensory sensitivities lead to atypical phobias (fear of a specific song, toilet, etc.)
  - Social fears – related to underlying social challenges (social communication challenges) rather than fear of scrutiny or judgement by others in typical social anxiety presentation
- Fixated interests in ASD can look or present like obsessions in OCD
  - Key difference is these are ego-syntonic in ASD individuals
    - These are enjoyable and/or self-soothing unlike in OCD where these are highly distressing
    - If not unable to engage in these fixated interests an individual can become distressed

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2- van Steensel FJ, Bögels SM, Perrin S. Anxiety disorders in children and adolescents with autistic spectrum disorders: a meta-analysis. Clin Child Fam Psychol Rev. 2011 Sep;14(3):302-17. doi: 10.1007/s10567-011-0097-0. PMID: 21735077; PMCID: PMC3162631.



# ASD and Anxiety Disorders

**Table 5** Signs and Symptoms of Anxiety in ASD

Behavioral	Medical
Crying	Changes in appetite
Distractibility/inattention	GI distress
Escaping or running away	Increased heart rate
Increased stereotypies (repetitive, ritualistic movements and vocalizations)	Insomnia
Meltdowns/tantrums	
Nail or skin picking/biting	
Pacing/restlessness	
Repetitive questioning	
Rocking	
Rubbing hands on arms or legs	
SIB	

- Only 1 published RCT of any medication for anxiety disorders in youth with ASD
  - **Mirtazapine** –10 week RCT comparing it to placebo in youth with ASD age 5-17 (n = 30)
  - Non-significant trend toward superiority of mirtazapine to placebo based on PARS
- 1 open label trial (n = 22, ages 6-17) with **buspirone** (15-45mg/day)
  - 41% “marked response” (n=9) and 32% with a “moderate response” (n=7) at addressing anxiety and irritability
- A retrospective chart review of 31 youth with ASD (ages 8-17) with anxiety revealed treated with **buspirone** 58% (n=18) with “much improved” or “very much improved” on CGI-I

Manter MA, Birtwell KB, Bath J, Friedman NDB, Keary CJ, Neumeyer AM, Palumbo ML, Thom RP, Stonestreet E, Brooks H, Dakin K, Hooker JM, McDougale CJ. Pharmacological treatment in autism: a proposal for guidelines on common co-occurring psychiatric symptoms. BMC Med. 2025 Jan 7;23(1):11. doi: 10.1186/s12916-024-03814-0. PMID: 39773705; PMCID: PMC11705908.

Anxiety

- 1. Start Low and Go Slow
- 2. Monitoring Matters
- 3. One Size Does Not Fit All
- 4. Back to the Basics

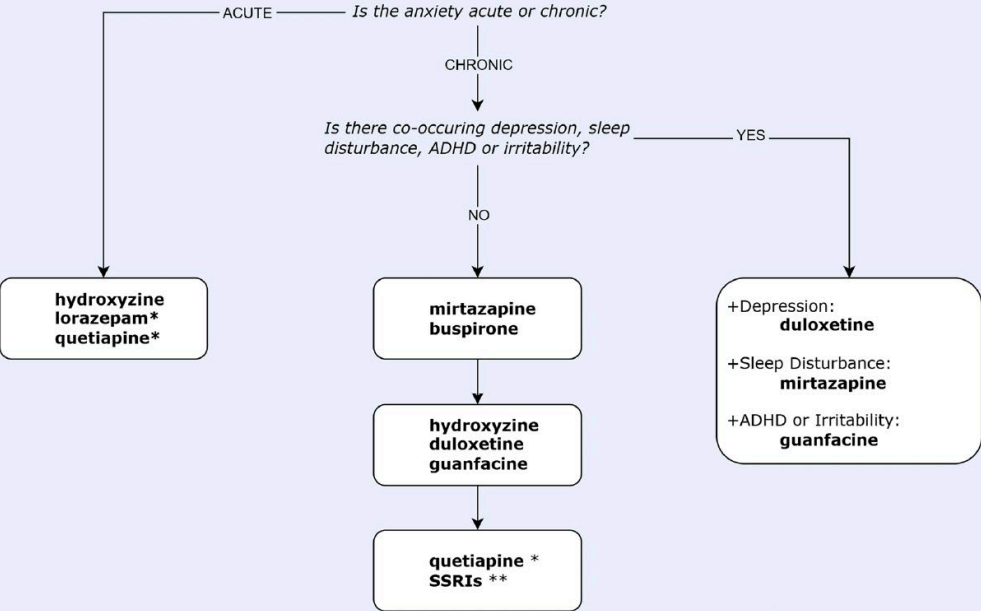
Prior to considering medication:

Assess and address potential contributing factors:

- Side effects from current medications
- Insufficient sleep/poor quality of sleep
- Gastrointestinal distress, consider a Kidney, Ureter, and Bladder (KUB) X-Ray
- Check thyroid function tests (TFTs) for hyperthyroidism

Consider behavioral and therapeutic options (see Anxiety Treatment section).

If interfering symptoms persist, consider medication following this pathway until an effective treatment outcome is achieved or referral is appropriate/necessary:



\*Monitor for serious adverse side effects

\*\* SSRIs (selective serotonin reuptake inhibitors) may cause behavioral activation in children with ASD

Fig. 3 Pharmacological treatment pathway for anxiety in patients with ASD

Table 6 Medication options and dosing for anxiety in patients with ASD

Drug	Common US Brand Names	Lurie Center Daily Dose Ranges	Notable Side Effects
Mirtazapine	Remeron	IR   3.75–45 mg (may be divided across two administrations)	Drowsiness, weight gain, dry mouth, constipation, increased appetite, sedation, thrombocytopenia, urinary hesitancy, irritability; <sup>a</sup> Rare risk of induction of hypomania and suicidal ideation, and lowered seizure threshold
Buspirone	BuSpar, BuSpar Dividose, Vanspar	IR   5–30 mg (divided across two administrations)	Drowsiness, dizziness, headache, blurred vision, tinnitus, diarrhea, nausea
Lorazepam	Ativan	Acute   0.5–1 mg (children), 0.5–2 mg (adult) Short term   0.5–3 mg (divided across 2–3 administrations)	Sedation, drowsiness, ataxia, appetite changes, tachycardia, irritability, constipation, sexual impairment
Hydroxyzine	Orgatraz, Vistaril, Atarax	IR   10–200 mg (divided across 2–4 administrations)	Dry mouth, drowsiness, headache
Duloxetine	Cymbalta	IR   20–90 mg (may be divided across two administrations)	Headache, drowsiness, fatigue, nausea, sexual impairments, constipation, reduced appetite, diarrhea, hyponatremia; <sup>a</sup>
Guanfacine	Intuniv Tenex	ER   1–4 mg IR   0.5–4 mg (may be divided across two or more administrations; daily max. dose varies by weight: 2 mg for 27–40.5 kg, 3 mg for 40.5–45 kg, 4 mg for > 45 kg)	Somnolence, fatigue, nausea, constipation, lethargy, insomnia, dizziness, bradycardia, hypotension
Quetiapine	Seroquel XR Seroquel	ER   25–200 mg (acute) 25–300 mg (chronic) IR   25–200 mg (acute) 25–300 mg (chronic, divided across 2–3 administrations)	Somnolence, dry mouth, dizziness, constipation, metabolic changes, increased appetite, weight gain, lethargy, tachycardia, tardive dyskinesia
Citalopram	Celexa	IR   5–40 mg	Drowsiness, insomnia, dizziness, headache, nausea, vomiting, constipation, sexual impairments, weight changes, QTc prolongation; <sup>a</sup>
Escitalopram	Lexapro	IR   5–20 mg	Insomnia, sexual impairments, nausea, sweating, fatigue, sedation; <sup>a</sup>
Fluoxetine	Prozac	IR   5–80 mg	Anxiety, hyperhidrosis, diarrhea, dry mouth, sexual impairments, nausea, sedation; <sup>a</sup>
Fluvoxamine	Luvox	IR   12.5–300 mg	Nausea, somnolence, insomnia, sexual impairments, vomiting, dry mouth; <sup>a</sup>
Paroxetine	Paxil, Seroxat	IR   5–50 mg	Drowsiness, dry mouth, weight gain, insomnia, sexual impairments, tachycardia, constipation, diarrhea, hyperhidrosis; <sup>a</sup>
Sertraline	Zoloft	IR   12.5–200 mg	Nausea, diarrhea, tremors, dyspepsia, reduced appetite, hyperhidrosis, sexual impairment; <sup>a</sup>

ER Extended-release, IR Immediate-release

<sup>a</sup> Medications carry rare risks for induction of hypomania and suicidal ideation

# Summary Points

- Combined treatment more effective than either treatment alone for severe symptomatology
  - If sx's persist after 12 weeks of CBT or medication only treatment, encourage adding the missing treatment ASAP
  - Consider simultaneous therapy referral when initiating medication depending on your community's waitlist time for therapy
- For neurotypical youth SSRIs have the best evidence base
- CBT and/or SPACE therapeutic interventions most likely to be beneficial
- If severe anxiety has resulted in avoidance of necessary developmental experiences with associated developmental arrest treatment will require a rehabilitative model to develop these
  - Social skills development with social anxiety/phobia
  - Educational deficits 2/2 school avoidance

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