Pediatric Anxiety Disorder: 
When to Worry About the “Worrier”

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Learning Objectives

- Determine the underlying pathophysiology of pediatric anxiety disorders and the role of toxic stress on the developing brain
- Discuss pharmacologic and nonpharmacologic interventions to manage pediatric anxiety disorders
- List protectant factors to promote resilience and stress management in children and adolescents in the primary care setting

Anxiety Disorders

- Anxiety disorders include the following diagnoses:
  - panic disorder
  - agoraphobia
  - post-traumatic stress disorder (PTSD)
  - social anxiety disorder (social phobia)
  - specific phobias
  - generalized anxiety disorder (GAD)
  - obsessive-compulsive disorder (OCD)
- The common feature of the different anxiety disorders is excessive, irrational fear and avoidance of anxiety triggers

Prevalence

- 13%-20% of children and adolescents in the US require mental health care
- Half of the adults in the US with mental health disorders showed symptoms by age 14
- Approximately half seek care for treatment
- Shortage of child psychiatrists
- AAP and NAPNAP call for assessment of family psychosocial functioning at ALL well-child visits and routine screening for mental health issues using validated tools for older children

Anxiety Disorders

- 8-10% of children suffer from anxiety d/o
- Typically appears in the preschool years
- Impairs social function
- Girls have twice incidence of anxiety as boys
- Risk factors: genetics, temperamental disposition towards shyness, parental dysfunction
- Separation anxiety and phobias are the most common anxiety d/o in children
- Social anxiety is most common in adolescents

Disclosures

I have no financial, personal or professional conflicts of interest to disclose.
Symptoms of Pediatric Anxiety Disorders

- Headaches and/or stomachaches (particularly common at younger ages)
- Fatigue, muscle tension, malaise, dry mouth, palpitations, syncope, chest pain, shortness of breath, dizziness, paresthesias, numbness, trembling, memory loss, difficulty concentrating, vague gastrointestinal symptoms, and urinary frequency
- Extensive clinical work-up not required

The Amygdala

- Located in the medial temporal lobe
- Involved in several fear and emotion related processes:
  - Fear conditioning
  - The regulation of stress effects on memory
  - Reward learning
  - Processing of emotionally and socially relevant information
- Prefrontal cortex also involved

Neurobiology of Anxiety

- Functional neuroimaging studies reveal functional impairments in brain regions that modulate emotion and fear
- Amygdala is believed to be responsible for rapid interpretation of danger
- Stress-induced hormones and other neurotransmitters operate on the amygdala to strengthen memories associated with fearful stimuli (improving adaptive responses to threats)
- Individuals with anxiety disorders show a deficiency in this dampening of fear responses by prefrontal cortical circuits

Screen for Child Anxiety Related Disorders (SCARED)

- Parent and child self-report versions
- Useful for differentiating between depression and anxiety
- Useful for differentiating between different types of anxiety: GAD, OCD, Social Anxiety, Specific Phobia subscales
- Quick to administer (about 10 min)
- Multiple languages and high validity

Cognitive Behavioral Therapy (CBT)

- AAP recommends CBT for mild anxiety and CBT + pharmacotherapy for moderate and severe anxiety
- Cognitive-behavioral therapy (CBT), particularly exposure therapy, has been shown to be highly effective in the treatment of anxiety disorders
- During exposure therapy, patients are systematically and repeatedly exposed to the anxiety-provoking stimulus or situation until their fear subsides
- Allows children to learn to MANAGE THEIR ANXIETY, now and in the future
Non-pharmacological Interventions for Parents

- Regular routines
- Sufficient sleep
- Prepare child for changes in routines
- Don’t let parental anxiety overwhelm the child
- Educate parents—childhood should not be “stress-free”
- Positive self talk, visual imagery
- Mindfulness

Non-pharmacological Interventions

- Targeted Activities to Decrease Anxiety Symptoms
  - Art therapy
  - Go for a walk, hike, or bike ride
  - Read
  - Sing, dance, listen to music
  - Meditation
  - Ecotherapy
  - Swing in a hammock or rock in a rocking chair
  - Get a massage or use foam rollers
  - Do a puzzle
  - Write in a journal
  - Play an instrument
  - Play with an animal

Medications for Pediatric Anxiety

- No SSRIs are FDA approved for GAD but strongly supported by research
- Should be considered if anxiety is moderate or severe
  - GAD
    - Fluoxetine (Prozac)
    - Sertraline (Zoloft)
  - OCD
    - Sertraline (Zoloft) - age 6 and up
    - Fluoxetine (Prozac) - age 7 and up
    - Fluvoxamine (luvox) - age 8 and up

Comorbidities

- Common comorbidities include major depressive disorder, attention-deficit/hyper-activity disorder (ADHD), ODD, and Tourette disorder.
- 25% of children with ADHD meeting criteria for an anxiety disorder
- Consider medication side effects on anxiety (stimulants)
- Alternative therapies
  - Alpha-2 agonists (helpful for ADHD with anxiety symptoms)
References


*Additional references available upon request.*