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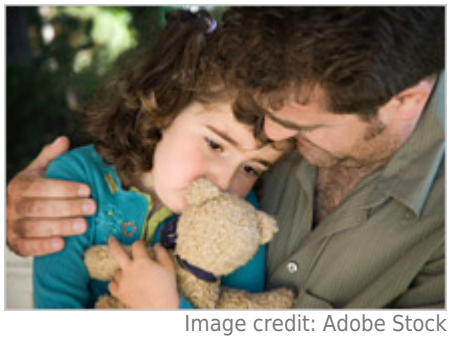
Anxiety in Children and Youth: Information for Primary Care



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Summary: Anxiety disorders are the most common illness in children and youth. Treatments include psychotherapy/counseling (such as CBT) as well as SSRI medication.

Case

J. is a 17-yo male 17 year-old teen who normally lives with parents. Father recently deployed and will be away for 6-months. Always a worrier. Now episodes of breathing, shaking, palpitations, and sweating Starting to avoid school, due to worry about having future episodes at school

How are you going to help J.?

Anxiety During the Lifespan

Having just enough fears and worries is normal and protective, as it helps little humans avoid dangers. However, when these fears and worries become excessive to the point where they cause problem, it is known as "anxiety".

Age	Typical triggers for fears, worries and anxiety
Infants	Sensory triggers, such as loud noises; being dropped Separation from caregivers
Toddlers	Separation anxiety Phobias (e.g. fears of insects, storms, the dark, monsters), as toddlers are starting to explore the world around them
Preschoolers (age 3-5)	Safety fears Mastery fears
School-age (age 6-12)	Performance and competency worries; social worries about rejection; worries about becoming ill
Adolescents (age 12-18)	Social competence and evaluation by others ; main worries are now social rather than physical.

Epidemiology

Anxiety disorders are the most common mental health conditions affecting children and youth with a point prevalence of 6%.

Presentation

Signs/Symptoms

- Thoughts: Worry thoughts
- Feelings: Anxiety and worry
- Behaviours: Avoidance of anxiety-provoking situations
- Physical: Troubles with sleep, appetite, energy due to prolonged autonomic arousal

Screening and Diagnostic Tools

History / Assessment

Who to ask?

- With younger children, most questions will be directed primarily towards the parents
- With youth and older children, most questions can be directed at parents and the youth

General screen

- Physician (to parent): “Does your child tend to be a worrier, or an anxious or nervous person?”
- Physician (to child/youth): “Do you tend to be an anxious or nervous person?”
- If patient answers positive, then screen for other anxiety conditions such as obsessive-compulsive disorder, phobias and panic disorder.
- Stresses
    - What stresses are you under these days?

Differential Diagnosis / Comorbidity

There are various conditions that can mimic anxiety, or that may be comorbid with anxiety:

Is there, or are there...	Consider...
• Medical conditions contributing to the anxiety?	Anxiety due to General Medical Condition • Anxiety symptoms are caused by a medical conditions, e.g. hyperthyroidism
• Significant psychosocial stressors contributing to anxiety?	Adjustment Disorder with Anxiety • Life stress that has been difficult to cope, which within 3-months, has led to anxiety symptoms resulting from the life stress
• Fear of specific objects or situations?	Simple Phobia • Extreme, unreasonable fear of specific objection or situation that causes dysfunction • Top fears are heights; enclosed spaces; the dark; snakes; spiders; injections with needles; thunder and lightning; having a disease • Ask (to parent): “Does your child have any phobias (e.g. fear of the dark, insects, storms) that are so severe that it causes problems?”

• Fear of separation from caregivers?	Separation Anxiety Disorder • Three or more of following must be present during the past four weeks ◦ Distress when separated from home or major attachment figures (e.g. parents) ◦ Complaints of physical symptoms when separating from major attachment figures ◦ Concern about harm to major attachment figures ◦ Fear of being alone at home and in other settings ◦ Reluctance to go to sleep without a major meltdown
• Fear of social situations?	Social Anxiety Disorder • Is there fear of social situations, present for at least six months? ◦ Fear of social situations where the child is exposed to unfamiliar people or to scrutiny by others ◦ Exposure to the feared situation provokes anxiety ◦ Anxiety must occur in peer settings (not just in interactions with adults) ◦ The feared situation(s) are avoided or are endured with intense distress • Ask (to parent): “Is your child excessively shy? Does it lead your child to avoid social situations? Does this cause problems?”
• Worries about many areas, along with symptoms with physical symptoms when anxious	Generalized Anxiety Disorder (GAD) • Excessive anxiety and worry with at least one of the following symptoms during the past six months: ◦ Restlessness ◦ Fatigue ◦ Difficulty concentrating ◦ Irritability ◦ Muscle tension ◦ Sleep disturbance
• Obsessions or compulsions?	Obsessive Compulsive Disorder (OCD) • Presence of obsessions (worries causing distress, e.g. worries about contamination) and compulsions (repetitive behavior that relieves distress, e.g. handwashing) • Ask parent for obsessions: “Does your child have any habits or rituals, such as excessive handwashing, or checking things repeatedly?” • Ask child/youth: “Do you have any habits or rituals, such as checking things repeatedly or washing your hands over and over?”
• Episodic bursts of severe anxiety?	Panic Attack • Period of intense fear peaking within 10-minutes with at least 4 or more of following symptoms, which include: palpitations; sweating, trembling, shaking, shortness of breath; dizziness or lightheadedness; sense of impending death; paresthesias • Developmentally less common in children • Ask: “Do you have sudden times, out of the blue, when you get scared or panicky?”
• Episodic bursts of severe anxiety plus avoidance of situations?	Panic Disorder • Recurrent unexpected panic attacks with a month of at least one of the following symptoms: ◦ Concerns about having additional attacks ◦ Worry about the consequences of the attack ◦ Significant behaviour changes related to attacks • Developmentally less common in children • Ask: “Have you had to avoid where you can go because of your anxiety?
• Anxiety symptoms don't fit in other categories?	Anxiety Disorder Not Otherwise Specified (Anxiety Disorder NOS) • Symptoms of anxiety, however symptoms do not clearly fit in any single diagnostic category

• Troubles with inattention / distractibility? Hyperactivity? Impulsivity?	People with ADHD may have restlessness from hyperactivity, anxiety from constantly not meeting expectations, or have negative reactions from others.
• Psychosis symptoms? ◦ Hallucinations: Seeing or hearing things that others do not? ◦ Paranoia: Worries that others are out to get them?	People with psychosis may feel unsafe and hence anxious.
• Troubles relating and interacting with other people?	Autism spectrum disorder (ASD) • People with ASD can struggle with anxiety related to various issues, such as social interactions, changes/transitions, sensory issues, etc. • Screening tools ASSQ | SCSQ
• Sensory processing issues ?	People with sensory processing issues may have anxiety from sensory stresses, including sensory overload. • Screening tool for sensory processing problems
• Substance use?	Substance use may cause anxiety; withdrawal of substances may also cause anxiety. • Screening tool | CRAAFT

Differential Diagnosis: Physical Conditions

Rule out physical conditions that might be causing anxiety, or contributing to anxiety:

Endocrine	Thyroid problems such as hyperthyroidism
Diet / Toxins	Caffeine from energy drinks, soft drinks Heavy metal (including lead poisoning)
Neurologic	Migraines Pain Tumors, delirium (rare)
Cardiovascular	Syncope Cardiac arrthymias Postural orthostatic tachycardia syndrome (POTS)
Respiratory	Asthma
Endocrine	Hypoglycemia Phaeochromocytoma (rare)
Medication-induced	Steroid use (adrenal or glucocorticosteroids) ADHD medications

Physical Exam (Px)

There is no diagnostic physical exam for anxiety conditions. Physical exam is important to help rule out contributory medical conditions, and can also show signs consistent with anxiety conditions.

General	Signs of sympathetic nervous system (SNS) activation may be seen, e.g. elevated HR, blood pressure, rapid breathing, sweaty palms, restlessness, pacing.
Head	Loss of hair on the head, or eyebrows may indicate hair pulling (trichotillomania)

Skin	Excoriations from compulsive skin picking (excoriation disorder) Signs of excessive hand washing (obsessive compulsive disorder)

Investigations

Investigation	What it might possibly indicate
Postural vitals	Postural changes may indicate postural orthostatic tachycardia syndrome (POTS), i.e. increased HR of 30 or more when going from sitting to standing position
CBC, differential	Anemia; WBC elevation with infection
Monospot	Infectious mononucleosis
TSH	Thyroid problems
Liver tests, electronlytes, renal function tests	Chronic illness
Pregnancy test	Pregnancy
B12, folate, vitamin D	Nutritional deficiencies

Management in Primary Care

- Educate family about anxiety
  - eMentalHealth.ca handout about anxiety in children/youth
  - Anxiety Canada website
- Teach parents how to respond and support their child with anxiety and worries.
  - Is the child emotionally upset?
    - When people see their loved ones upset, many times they try to problem-solve ("tell me what's going on?") or giving advice (e.g. "let's try some deep breathing."
    - The problem however, is that when people are emotional, they may not be able to access their "rational mind" or "logical mind".
    - Recommendation
      - Start with acceptance and validation: "You seem really anxious! I'm here. I'm with you. Let me sit with you. How can I help?"
  - Is the child in the red zone? (i.e. "fight / flight / freeze")
    - In the red zone, even listening and empathy may not be enough.
    - Recommendation
      - Give the person space and time for the anxiety to pass, ideally using whatever plan was discussed at a previous time when they were calmer.
      - Don't cause added stress to their overwhelmed brain by trying to problem-solve, give advice, etc.
  - Is the child in the green zone? (i.e. calm, logical, relaxed).
    - When a child is not acutely upset, this is when parents can talk to them about problem-solving, or strategies to address the worries.
- Lifestyle interventions
  - Sleep
  - Nutrition
  - Exercise
  - Mindfulness for Parents

    - Self-compassion
- Do parents have issues with their own anxiety?
    - Refer parents to mental health services
- Counseling/therapy for the child/youth such as:
    - Individual/group CBT
    - Mindfulness-based cognitive therapy (MBCT)

Is there severe anxiety, or anxiety that does not respond to non-medication strategies? If so, then consider medications.

Connecting with the School

Ask the parents if the school is aware that the student struggles with anxiety, as 1) school can be a source of anxiety, and 2) school can be a support. Sometimes they are not even aware. The school can come up with plan to help 1) reduce any school sources of stresses/anxiety, and 2) provide additional supports for the student.
In some cases, it may be helpful that the healthcare provider contact the school. This can be done during a phone call during an office visit.

School letters
It can be helpful to write a letter to document the issues with anxiety. Examples are below:

Medication Management in Primary Care

Is there moderate to severe anxiety that has not responded to non-medication approaches? If so, then consider medication (Kodish, 2011; CANMAT, 2016)

1st line SSRI

- Sertraline
- Fluvoxamine
- Fluoxetine

2nd line SSRI

- Choose an alternate SSRI that has not already been tried

3rd line SNRI, NRI

- Venlafaxine (XR) (shown helpful in GAD trial)

Medication Dosage Table for Anxiety in Children/Adolescents

Medication	Dosage
Sertraline (Zoloft)	Age 6-12: Start 25 mg daily x 1 week; then 50 mg daily; max dosage 100 mg Age 13-17: Start 50 mg daily x 1-week, then increase by 50 mg weekly; max 200 mg daily
Fluoxetine (Prozac)	Age 6-12: Start 5 mg daily as liquid, or 10 mg capsule alternating days; max 20 mg daily. Age 12-18: Start 10 mg daily; increase up to 60 mg (for OCD).
Fluvoxamine (Luvox)	Age 6-12: Start 25 mg daily; target therapeutic range 50-200 mg daily in children; max 200 mg daily. Age 12-18: Start 25-50 mg daily; target range 50-300 mg daily in adolescents; max
Venlafaxine XR (Effexor	Age 6-12: Start 37.5 mg daily, then increase to 75 mg daily x 1-week, up to max 150 mg daily. Age 12-18: : Start 37.5-75 mg daily, then increase to 37.5-75 mg daily x 1-week, up to 75-225 mg daily; max 375 mg daily.

Desvenlafaxine (Pristiq)	Age 12+: Start 50 mg daily, initial target 50 mg daily; max 100 mg daily
Duloxetine (Cymbalta)	Age 6-12: Start 30 mg, initial target 60 mg, max 60 mg Age 12+: Start 30 mg, initial target 60, max 120 mg

* Disclaimer: This medication table is a rough summary only and is not a replacement for clinical judgment and consulting a drug reference such as PDR or Lexi-Comps.

Complementary and Alternative Treatments

Particularly for families that are reluctant to try medications, consider the following evidence-based complementary/alternative treatments:

- Yoga

Evidence is (unfortunately) lacking for:

- Kava kava: No paediatric studies; Rare cases of hepatotoxicity due to contamination by Aspergillus toxins
- GABA; No paediatric studies.
- Cycloserine: No effects in children/youth (Cochrane Review)

When to Refer to Mental Health Professionals

- When the anxiety is not improving despite initial course of medication / non-medication treatment

Who to Refer to

- Mental health clinics in hospitals or community mental health agencies
- Private practice professionals
    - Psychiatrists
    - Psychologists
    - Certified clinical counselors (CCC)

Clinical Guidelines

Practice Parameter for the Assessment and Treatment of Children and Adolescents With Anxiety Disorders, J. Am. Acad. Child Adolesc. Psychiatry, 2007;46(2):267-283.

Anxiety and depression in children and youth – diagnosis and treatment from the Guidelines and Protocols Advisory Committee (British Columbia) http://www.bcguidelines.ca/gpac/pdf/depressyouth.pdf

1. Initial management of anxiety in a pediatric patient may include all of the following EXCEPT

- ○ Educating family about anxiety.
- ○ Optimizing diet and nutrition, e.g. reducing caffeine and processed foods.
- ○ Selective serotonin reuptake inhibitors (SSRIs)
- ○ Mindfulness and yoga.
- ○ Optimizing sleep, e.g. ensuring sufficient sleep and sleep hygiene.

2. How may anxiety in a pediatric patient present?

- ○ Sleep problems.
- ○ Patient reports feeling anxious and nervous about situations such as school and peers.
- ○ Changes in appetite such as loss of appetite.

- Avoidance of day-to-day situations.
- All of the above

Readings for Primary Care

Carlatt J: The Psychiatric Review of Symptoms: A Screening Tool for Family Physicians, Am Fam Physician. 1998 Nov 1;58(7): 1617-1624. Retrieved Sep 9, 2012 from http://www.aafp.org/afp/1998/1101/p1617.html

About this Document

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