“Change Is Hard”
Depression and Anxiety in Adolescents

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Disclosures

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• Consultant – Center for Excellence for Child Being
• Lead Consultant – Missouri Child Psychiatry Access Project (MO-CPAP)
• Committee on Quality Improvement – AACAP
• Telepsychiatry committee – AACAP
Objectives

- Understand the factors contributing to adolescent depression and anxiety
- Describe common presentations of depression and anxiety in youth
- Discuss treatment approaches in the primary care setting and beyond
Adolescence – ‘Who am I?’

- Identity vs Role confusion
- Excitement about growing and Fear of adulthood
- Social relationships – ‘How do I fit in?’
- Experimentation and exploration
- Existential crisis – “What’s the point of all this?”
- Family conflict – “I hate you, please support me”
Vulnerable Period for Mental Health

- Onset of most MH conditions in adolescence
- Substance use and experimentation
- Social stressors – self image
- Relationships – breaking bad
- Performance pressure – academics, sports, arts
- Transition from middle to high school
- Bullying – there is an app for that…
- Puberty, sexuality and abuse
Unprecedented Times – Unprecedented Trauma

• Loneliness, social isolation
• Death, loss, grief - depression
• Fear of loss, fear of infection – anxiety
• Abuse, high expressed emotions – trauma, PTSD
• Access to lethal means – Self harm and suicide
Features of Adolescent Depression

• Cardinal features: (must be present)
  – Dysphoria (Low mood/irritability*) or Anhedonia

• Other features

  S leep changes: increase during day or decreased sleep at night

  I nterest (loss): of interest in activities that used to interest them

  G uilt (worthless): depressed elderly tend to devalue themselves

  E nergy (lack): common presenting symptom (fatigue)

  C ognition/C oncentration: reduced cognition &/or difficulty concentrating

  A ppetite (wt. loss): usually declined, occasionally increased

  P sychomotor: agitation (anxiety) or retardations (lethargic)

  S uicide/death preocp.

• Requires at least 5 key features present over at least 2-week period, and be a marked change from baseline
Is it Depression or Something Else?

- Acute adjustment reaction to a recent stressor (within 6 months of stressor)
- Substance use/Intoxication
- Medication effect (oral contraceptives, steroids etc)
- Medical illness (hypothyroidism, adrenal insufficiency, vitamin B12 insufficiency, hypercortisolism, mononucleosis, TBI etc)

Medical illness and depression are not mutually exclusive; depression can co-exist with a wide variety of chronic illness.
Features of Anxiety Disorder in Youth

- Excessive worry about a number of events, difficult to control the worry.
- 3 or more symptoms: Restlessness or feeling keyed up or on edge, easily fatigued, difficulty concentrating, irritability, muscle tension, sleep disturbance

- Persistent, intense fear and avoidance of social situations
- Fear of negative evaluation or scrutiny
- Anxiety about being humiliated or embarrassed socially

- Excessive fear when separated from home or attachment figures, worry about their own or their parents' safety and health

- Symptoms developmentally inappropriate, out of proportion and last > 6 months

- Buzz words: shy, worried, keyed up, home sick, frozen, nervous
Is it Anxiety or Something Else?

Psychiatric:
ADHD - Restlessness, distractibility
Bipolar Disorder - Restlessness, irritability, insomnia
Depression - Distractibility, insomnia, somatic complaints
Learning Disorders - Worry about academic performance
Autism: worries with transitions, social relationship issues, restricted/repetitive/attachments.

Medical:
CNS - Migraine, Epilepsy
Asthma
Cardiac arrhythmias
Lead intoxication (young kids)
Endocrine - Pheochromocytoma, Hyperthyroidism, Hypoglycemia

Medications: Antihistamines, Steroids, Diet pills, Cold medicines
Screening Tools for Depression

AAP guidelines recommend universal screening

- SIGECAPS in Clinical interview

- PHQ-9 Adolescents
  - Focus on impairment, suicidality
  - Monitoring symptoms with goal of reducing score below 10 or a 50% reduction

- PROMIS
  - [http://www.healthmeasures.net/explore-measurement-systems/promis](http://www.healthmeasures.net/explore-measurement-systems/promis)
Screening Tools for Anxiety

– Universal screening for all girls 8 and up?

- Rating scales for screening and monitoring:
  • - MASC – Multidimensional Anxiety Scale of Children (broad)
  • - SCARED – Screen for Child Anxiety Related Emotional Disorder (narrow)
  • - GAD – 7

- Assessment of key components:
  - precipitants/triggers of anxiety
  - severity
  - functional impairment
  - ability to recover/coping
We Have a Diagnosis, Now What?

• Validate and normalize BEFORE we treat and heal

“I can see how hard this has been for you. I have seen a lot of kids your age going through similar things recently and we have been able to help them out quite a bit.”
It Takes a Village – Multimodal Approach

Psychoeducation of child and parent about the nature of anxiety

Psychotherapy

Behavioral Therapy
- Behavioral Activation, functional analysis

Cognitive Behavioral Therapy
- Thoughts, feelings, behaviors

Interpersonal Therapy for Adolescents
- Social problem-solving (and behavioral activation)

School interventions
- School based coach
- IEP for accommodations in classwork and homework

Pharmacotherapy
Pharmacotherapy - Common Medication Classes

• Selective Serotonin Reuptake Inhibitor (SSRI)
  - Citalopram (Celexa®)
  - Escitalopram (Lexapro®)
  - Fluoxetine (Prozac®)
  - Fluvoxamine (Luvox®)
  - Paroxetine (Paxil®)
  - Sertraline (Zoloft®)

• Norepinephrine and Dopamine Reuptake Inhibitors (NDRIs)
  - Bupropion (Wellbutrin®)

• Serotonin and Norepinephrine Reuptake Inhibitors (SNRI)
  - Desvenlafaxine (Pristiq®)
  - Duloxetine (Cymbalta®)
  - Levomilnacipran (Fetzima®)
  - Venlafaxine (Effexor®)

• α₂ antagonist
  - Mirtazapine (Remeron®)
# Depression Medication Approach

<table>
<thead>
<tr>
<th></th>
<th>Medication</th>
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</thead>
<tbody>
<tr>
<td><strong>Mild Depression</strong></td>
<td>Medication not recommended as initial treatment</td>
</tr>
</tbody>
</table>
| **Moderate to Severe Depression** | 1<sup>st</sup> Line: SSRI  
  • Fluoxetine<sup>1</sup>  
  • Escitalopram<sup>2</sup>  
  2<sup>nd</sup> Line: an alternate SSRI  
  3<sup>rd</sup> line: an alternate class  
  • SNRI  
  • Bupropion  
  • Mirtazapine |

FDA: approved for ages ≥ 8 years<sup>1</sup>  
FDA: approved for ages ≥ 12 years<sup>2</sup>
## Anxiety Medication Approach

<table>
<thead>
<tr>
<th>Anxiety Level</th>
<th>Medication</th>
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</thead>
<tbody>
<tr>
<td>Mild Anxiety</td>
<td>Not recommended as initial treatment</td>
</tr>
<tr>
<td>Moderate to Severe Anxiety</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; Line: Selective Serotonin Reuptake Inhibitor (SSRI)</td>
</tr>
<tr>
<td></td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Line: alternate SSRI</td>
</tr>
<tr>
<td></td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; Line: Serotonin Norepinephrine Reuptake Inhibitor (SNRI)</td>
</tr>
</tbody>
</table>
Switching Medications

• **When**: no response or worsening of symptoms after adequate trial of medication (6-8 weeks)

• **How**:
  - Approach 1: Wean off the medication then start the new one
  - Approach 2: Cross titration – start low dose of new medication while weaning off the previous one

*Dose increase/decrease by 50% every 4-5 days (except Fluoxetine)*
Selective Serotonin Reuptake Inhibitors (SSRI)

• No evidence that a particular SSRI is more effective than another

• Benefits are typically seen by weeks 2-4 with clear benefit noted by weeks 6-8
  – Maximum benefit may take 12-16 weeks to occur

• *Higher doses are usually required for anxiety management*

• Not addictive but may cause adverse effects if abruptly discontinued

• Avoid concurrent use with alcohol or other substance
SSRI Medication Pearls

• Citalopram (Celexa®)
  – QT interval prolongation warning with doses >40 mg/day
  • Recommended maximum daily dose: 40 mg
• Escitalopram (Lexapro®)
  – QT interval prolongation risk similar to citalopram
• Fluoxetine (Prozac®)
  – Most evidence for use
  – Most activating SSRI (may acutely worsen anxiety)
  – Very long half-life (3-6 days)
  – Strong CYP2D6 inhibitor
    • Interaction examples: aripiprazole, tamoxifen
SSRI Medication Pearls, Continued

- Fluvoxamine (Luvox®)
  - Twice daily dosing with doses ≥50 mg/day
  - Recommended to take at bedtime
  - Strong CYP1A2 inhibitor; moderate CYP2C19 inhibitor

- Paroxetine (Paxil®)
  - More weight gain & sedation than other SSRIs
  - Symptoms upon abrupt discontinuation

- Sertraline (Zoloft®)
  - More GI disturbance than other SSRIs
SNRI Medication Pearls, continued

• Duloxetine (Cymbalta®)
  – Increased blood pressure
  – Insomnia, dizziness, GI disturbance, headaches

• Venlafaxine (Effexor®)
  – Increased blood pressure
  – Insomnia, dizziness, GI disturbance, headaches, night sweats
  – Symptoms upon abrupt discontinuation
Side Effects

Typically subside with continued use
• Dry mouth
• GI disturbances
• Headache
• Insomnia or sedation

Don’t subside with continued use:
• Sexual dysfunction

• Rare but serious side effects
• QTc prolongation
• Induction of mania
• Serotonin Syndrome:
  - mental status changes – agitation, AVH
  - Autonomic instability
  - Seizures
  - Severe GI symptoms – nausea, vomiting
# Side Effect Management

<table>
<thead>
<tr>
<th>Side Effect</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>GI disturbances</td>
<td>Take with food</td>
</tr>
<tr>
<td>Sleep changes</td>
<td>Take in AM or PM</td>
</tr>
<tr>
<td>Headache</td>
<td>Monitor</td>
</tr>
<tr>
<td>Sexual dysfunction</td>
<td>May need switched</td>
</tr>
<tr>
<td>Behavioral activation</td>
<td>Decrease dose or discontinue</td>
</tr>
<tr>
<td>Serotonin syndrome</td>
<td>Discontinue</td>
</tr>
<tr>
<td>Elevated blood pressure (SNRI)</td>
<td>Continue monitoring; decrease dose or discontinue</td>
</tr>
</tbody>
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FDA Black Box Warning

- **Increased Risk of Suicidality** in Children & Adolescents (10/2004) and Young Adults (7/2005)
  - A Patient Medication Guide warning was developed for all antidepressants to provide information on the risk of suicide & how to monitor for this (e.g., increased agitation or irritability, suicidal thoughts) with **initial weekly contact and close follow-up**

- No death by suicide occurred in child & adolescent population; contrarily, there was increase in suicides after FDA warning due to reduced antidepressant use resulting in untreated depression

- Risk for suicidality in younger populations is likely due to impulsivity & increased energy before depressive symptoms begin to dissipate

Summary

• Its takes “pills and skills” approach to treat adolescent mood disorders
• Medication management is safe and effective for pediatric depression and anxiety with SSRIs as the first line medications.
• Medication side effects are often self resolved or easy to mitigate.
• Adequate trial for dose and duration (8-12 weeks) is important before medication change.
• FDA black box warning must be discussed with families along with the benefits of treatment vs. risks of untreated depression.
Questions???
New Resources!

https://ohioaap.org/education-cme-moc-ii/preventive-health-program/

Open Camera And Scan!