PEDIATRIC DEPRESSION

Project ECHO Pediatric Mental Health teleECHO session
Wednesday, October 5, 2022
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Learning Objectives

- Demonstrate knowledge of the diagnostic criteria for depressive disorders in children and adolescents
- Give examples of different screening tools to use in clinical practice
- Understand both pharmacologic and non-pharmacologic treatment options for depression in youth

Depressive Disorders

- Major Depressive Disorder
- Disruptive Mood Dysregulation Disorder
- Persistent Depressive Disorder (formerly Dysthymia)
- Bipolar Depression
- Depression due to a Medical Condition or Substance Use

Major Depressive Disorder (F33.*)

SIGECAPS + mood

- 5 or more of the following symptoms present for the same 2 weeks nearly every day, and represent a change from previous functioning. MUST include one of the first two.
  - *Depressed mood*
  - *Loss of interest or pleasure*
  - *Significant weight loss/gain when not trying, change in appetite, or (for children) failure to make expected weight gain*
  - *Insomnia or hypersomnia Psychomotor agitation or retardation nearly every day (observable by others)*
  - *Fatigue or loss of energy*
  - *Feelings of worthlessness or excessive/inappropriate guilt*
  - *Diminished concentration or indecisiveness*
  - *Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation withouth specific plan, or a suicide attempt or specific plan for suicide*

Compared to Adults…

- Children might present with:
  - *Irritable mood“*
  - *“boredom”*
  - *failure to gain weight*
  - *somatic complaints*
  - *social withdrawal*
  - *declining school performance*
- Suicide attempts tend to be more impulsive and can be hard to predict

Epidemiology of Childhood Depression

- 1-2% of children and 3-8% of adolescents
- Gender Differences: F=M pre-puberty, F > M post-puberty
- Average duration: 3-6 months, but hard to quantify
- Recurrence rates: 40% within 2 years, 70% by 5 years
- Pre-pubertal depression: less biological, more environmental
- By age 18, cumulative probability of a depressive episode nears 20%
- #1 Risk factor: Family history

Suicide/Safety Assessment

- Ask direct questions, typically more specific based on previous answers
  - *"Have you ever thought of killing yourself or wanted to be dead?" "How recently?"*
  - *"Have you thought of a plan of how to kill yourself?"*
  - *"Have you looking into ways or tried to get things needed to complete your plan?"*
  - *"Have you tried to kill yourself?" "How?" "What happened?"*
  - *"If you haven't tried, what has kept you from trying?"*
  - *"Have you talked to anyone about these thoughts?" "If so, who?"*
- I encourage you to speak with the youth alone for this assessment, and then bring the parent/guardian in to discuss safety planning.

Safety Planning

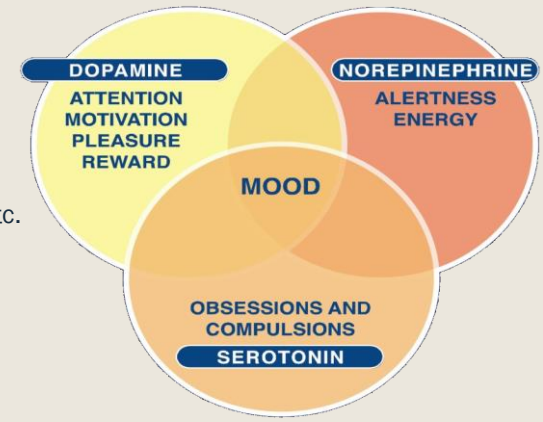
- *Restricting lethal means*
- *Engaging a concerned third party (preferably an adult)*
- *Developing an emergency communication plan should the patient deteriorate, become actively suicidal or dangerous to others, or experience an acute crisis associated with psychosocial stressors*
  - *Local crisis center, after-hours clinic number/on-call person, 988*
- *Modify other risk factors: minimize substance use, address chaotic environment, try to minimize social stressors and/or improve social engagement, address impulsiveness*

Screening Tools

- Since , USPSTF recommends depression screening in children 12 years and older
- Patient Health Questionnaire-2 or -9 (PHQ-2 or PHQ-9)
- Short Moods and Feelings Questionnaire (SMFQ) – has child and parent versions
- Beck Depression Inventory (BDI-II)
- Children's Depression Rating Scale
- Columbia Depression Scale

Treatment

- Prozac (fluoxetine) is FDA approved for age 8+ and Lexapro (escitalopram) is FDA approved for age 12+
- Other SSRIs
- Therapy: individual or family
  - *Typically recommend cognitive-behavioral therapy (CBT) or interpersonal therapy (IPT)*
- Lifestyle: sleep hygiene, social engagement, etc.



Medication Options: SSRIs

Medication	Formulations	Daily Dose Range
Citalopram (Celexa)	Tablet: 10/20/40mg Suspension: 10mg/5mL	10-40mg
Escitalopram (Lexapro)*	Tablet: 5/10/20mg Suspension: 1mg/1mL	10-20mg (initial dose may be 2.5-5mg)
Fluoxetine (Prozac)**	Tablet and capsule: 10/20/40/60mg Suspension: 20mg/5mL	20-60mg (initial dose may be 10mg)
Fluvoxamine (Luvox)	Tablet: 25/50/100mg	50-200mg (initial dose may be 25mg)
Sertraline (Zoloft)	Tablet: 25/50/100mg Suspension: 20mg/1mL	50-200mg (initial dose may be 12.5-25mg)

*FDA approved for children 12 and up
**FDA approved for children 8 and up
Note: Paroxetine (Paxil) is an SSRI, but is typically not recommended for use in children due to higher risk for side effects and likelihood of withdrawal effects

Medication Options: Non-SSRIs

Medication	Formulations	Daily Dose Range
Buproprion, Buproprion SR (Wellbutrin/Wellbutrin SR)	Tablet: 75/100mg Tablet ER 12 hour: 100/150/200mg	150-300mg (initial dose may be 37.5-75mg)
Buproprion XL (Wellbutrin XL)	Tablet ER 24 hour: 150/300/450mg	150-450mg
Duloxetine (Cymbalta)*	Capsule: 20/30/40/60mg	40-80mg (initial dose may be 20-30mg)
Mirtazapine (Remeron)	Tablet: 7.5/15/30/45mg Tablet disintegrating: 15/30/45mg	15-45mg (initial dose may be 7.5mg)
Trazodone (Desyrel)	Tablet: 50/100/150/200mg	100-150mg (initial dose may be 25-50mg)
Venlafaxine, Venlafaxine XR (Effexor/Effexor XR)	Tablet: 25/37.5/50/75/100 Capsule and Tablet ER: 37.5/75/150/225mg	100-150mg (initial dose may be 37.5mg)

*FDA approved for age 7 and up for Generalized Anxiety Disorder
-Newer medications (Pristiq, Fetzima, Viibryd, and Trintellix) not included due to lack of efficacy trials in minors.

Black Box Warning

- 2004: US FDA released the Black Box Warning on antidepressants indicating that they were associated with an increased risk of suicidal thinking, feeling, and behavior in young people
- Recommendation based on a series of meta-analyses of 372 randomized clinical trials of antidepressants involving nearly 100,000 participants, which showed that the rate of suicidal thinking or suicidal behavior was 4% among patients assigned to receive an antidepressant, as compared with 2% among those assigned to receive placebo. There were no suicide attempts documented in these studies.
- 2007: expanded black-box warning stated that depression itself was associated with an increased risk of suicide
- After 2004, prescribing of antidepressants for all age groups decreased significantly, particularly in youth.

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Evidence-Based Treatment (Hallmark Articles)

- Treatment for Adolescents With Depression Study (TADS)- RCT
  - *Patients: age 12-17 (inclusive) diagnosed with MDD*
  - *Randomized treatment: fluoxetine alone, CBT alone, fluoxetine + CBT, or placebo for 12 weeks. Medication/placebo possibly titrated (10mg-40mg).*
  - *Results (response rate): fluoxetine + CBT (71.0%) > fluoxetine alone (60.6%) > CBT alone (43.2%) > placebo (34.8%)*
  - *Suicidality decreased in all arms*
- Adolescent Depression Antidepressant and Psychotherapy Trial (ADAPT)- RCT
  - *Patients: age 11-17 (inclusive) diagnosed with MDD*
  - *Randomized treatment: fluoxetine alone or fluoxetine + CBT for 12 weeks + 16 week follow-up (assessments at Week 6, 12, and 28)*
  - *Results: equivalent, but adding CBT added cost and time involved*

Resources

- American Association of Child an Adolescent Psychiatry: www.aacap.org
  - *Facts for Families, Parents' Medication Guides, and Resources for Clinicians*
- Guidelines for Adolescent Depression in Primary Care (GLAD-PC): www.gladpc.org was published in Pediatrics in March 2018, https://doi.org/10.1542/peds.2017-4081 (free).