Depression Treatment in Pediatric Primary Care

Anchorage, AK
May 4, 2019

Robert Hilt, MD, FAAP
Professor of Psychiatry, University of Washington
Medical Director, Partnership Access Line
Seattle Children’s Hospital
Objectives

• Identify why screening for depression should occur
• Discuss non-medication care steps for youth or maternal depression
• Know first and second line treatment strategies for depression in young people
The Problem of Depression

• Only about 50% of adolescents with depression will be diagnosed prior to adulthood
• Without screening, most depressed adolescents are not being identified in primary care
• When depression is identified, only about 50% end up receiving appropriate care

Cheung AH et al, GLAD-PC, 2018
Depression Problems Continued

• Depression is common
  • Depression point prevalence
    • Approximately 4% in community populations
      • Much higher rates seen in primary care offices
    • By age 18, over 20% have had one episode
• Most, but not all, youth suicides have a depressive disorder history
  • Over time, suicide varies between the 2nd or 3rd leading cause of death in adolescents

KR Merikangas et al, Epidemiology of mental disorders in children and adolescents, 2009
Cheung AH et al, GLAD-PC, 2018
Major Depression Consequences

- Impacts normal development
  - Natural remission in 8 months to 13 months
  - School, peer, and family problems result
- Can trigger other disorders
  - Conduct disorder, substance abuse
- Problems continue into adulthood
  - More mental disorders, increased mortality
- Significant risk of recurrence

Birmaher B et al, Course and outcome of child and adolescent major depressive disorder, 2002
Why does depression present in adolescence?

- Hormonal changes of puberty
- Sleep disturbances
- Cognitive developmental changes
- Psychosocial pressures
  - identity, sexuality, school achievement issues
- Emotional and/or physical trauma
- Substance use/abuse
- Genetics
Manifestations of Depression In Adolescents (typical)

- Sadness and tearfulness
- Hopelessness
- Inability to concentrate
- Loss of energy
- Sleep and/or appetite changes
- Self-criticism and low self-esteem
- Suicidal thoughts

(these are also some of the diagnostic criteria)
Manifestations of Depression In Adolescents (more subtle)

- Withdrawal from family/social activities
- Irritability (fights, moodiness, etc)
- School underachievement, failure, truancy
- Substance use and abuse (self-medication)
- Aches and pains, somatic symptoms
  - Increased # physician/ER visits
  - Increase in medical testing
Past Year Prevalence of Major Depressive Episode Among U.S. Adolescents (2016)

Data Courtesy of SAMHSA

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Female</th>
<th>Male</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>Hispa...</th>
<th>White</th>
<th>Black</th>
<th>Asian</th>
<th>Al/AN**</th>
<th>2 or...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>12.8</td>
<td>19.4</td>
<td>6.4</td>
<td>5.0</td>
<td>9.4</td>
<td>12.7</td>
<td>13.9</td>
<td>17.4</td>
<td>17.0</td>
<td>12.7</td>
<td>13.8</td>
<td>9.1</td>
<td>11.9</td>
<td>11.5</td>
<td>13.8</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

www.nimh.nih.gov/health/statistics/major-depression.shtml#part_155721
Importance of Screening for Depression

- Depression may be unrecognized due to:
  - Stigma
  - Parent or patient denial of illness
  - Signs dismissed as “typical teenager” behavior
  - Focus on somatic symptoms may distract

- 2016 US adolescent MDD survey data (NSDUH)
  - 60% received no mental health treatment
  - 19% saw a health professional, used no medication
  - 21% saw a health professional, tried a medication

MDD = Major Depressive Disorder

www.nimh.nih.gov/health/statistics/major-depression.shtml#part_155721
Recommendations for Screening

• AAP Bright Futures recommends annual depression screens for age 12 and up
  • Also, recommends maternal depression screens at 1, 2, 4 and 6 month well child visits
• US Preventive Services Task Force endorses depression screening in pediatric primary care for ages 12-18
  • Screening only if systems in place to ensure accurate diagnosis, therapy and follow-up

brightfutures.aap.org/Bright%20Futures%20Documents/MSRTable_AdolVisits_BF4.pdf
So how is depression identified in the office setting?
- Patient or parent interview/ complaints
- Screening tools
Screening Tools

• Pros:
  • Increased identification possible
  • Universal screening possible
  • Time efficient (can complete in waiting room)
  • Providers do not have to remember initiate the conversation
  • Can increase adolescent disclosure of symptoms
Screening Instruments

- Cons:
  - Can be time consuming to screen all teens
  - Negative impacts on practice flow
  - Research is less clear on when, where, and with what frequency to screen
  - Many instruments available – how to choose?
  - False-positives and false-negatives
  - Improved outcomes depends on proper follow-up of positive screens
Rating scales

- General Behavioral Health Screening
  - PSC-17 has an “Internalizing” subscale which can suggest a depressive disorder
  - SDQ “emotional problems” scale has 4 out of 5 items on anxiety, so less useful for depression
  - Much longer general screening scales like CBCL, and BASC are not free, much more time consuming
- Targeted Screen/Depression diagnostic aide
  - PHQ-9 or PHQ-A for adolescents
  - SMFQ for kids over age 6
  - Others like CDI, Beck, CDRS-R avail for a fee
    - These all can also track response to treatments
**Pediatric Symptom Checklist-17 (PSC-17)**

<table>
<thead>
<tr>
<th></th>
<th>NEVER</th>
<th>SOMETIMES</th>
<th>OFTEN</th>
<th>I</th>
<th>A</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fidgety, unable to sit still</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Feels sad, unhappy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Daydreams too much</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Refuses to share</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Does not understand other people's feelings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Feels hopeless</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Has trouble concentrating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Fights with other children</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Is down on him or herself</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Blames others for his or her troubles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Seems to be having less fun</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Does not listen to rules</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Acts as if driven by a motor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Teases others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Worries a lot</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Takes things that do not belong to him or her</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Distracted easily</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Scoring:**
- Fill in unshaded box on right with:
  - “Never” = 0, “Sometimes” = 1, “Often” = 2
  - Sum the columns.

**Suggested Screen Cutoff:**
- PSC-17 - I ≥ 5
- PSC-17 - A ≥ 7
- PSC-17 - E ≥ 7
- Total Score ≥ 15

Higher Scores can indicate an increased likelihood of a behavioral health disorder being present.

**Internalizing**
- Depression
- Anxiety

**Attention**

**Externalizing**
- ODD
- Conduct

**35 item version also available**

**Age 8 and up**

**No fee for use**


Formatting by www.palforkids.org
Short Mood and Feelings Questionnaire

This form is about how you might have been feeling or acting recently.

For each question, please check how much you have felt or acted this way in the past two weeks.

If a sentence was true about you most of the time, check TRUE.
If it was only sometimes true, check SOMETIMES.
If a sentence was not true about you, check NOT TRUE.

<table>
<thead>
<tr>
<th>TRUE</th>
<th>SOMETIMES</th>
<th>NOT TRUE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. I felt miserable or unhappy</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. I didn't enjoy anything at all</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. I felt so tired I just sat around and did nothing</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. I was very restless</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. I felt I was no good any more</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. I cried a lot</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. I found it hard to think properly or concentrate</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8. I hated myself</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9. I was a bad person</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10. I felt lonely</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>11. I thought nobody really loved me</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>12. I thought I could never be as good as other kids</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>13. I did everything wrong</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Copyright: Adrian Angold & Elizabeth J. Costello, 1987. Developed Epidemiology Program, Duke University. Reproduced with permission from developer, may be reproduced for use with one's own patients.

SMFQ

- Age 6 and up
- No fee for use

By Angold and Costello, 1987
Free download at
https://devepi.duhs.duke.edu/mfq.html
PHQ-9

- Age 13 and up
- No fee for use
- PHQ-A is nearly identical, slight wording modifications, both supported for adolescents

Spitzer R et al 1999, Johnson JG et al 2002

---

**Patient Health Questionnaire (PHQ-9)**

**NAME** ___________________________________________  **DATE** _______________________

Over the last 2 weeks, how often have you been bothered by any of the following problems? (use **✓** to indicate your answer).

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Several days</th>
<th>More than half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Little interest or pleasure in doing things</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Feeling down, depressed, or hopeless</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Trouble falling or staying asleep, or sleeping too much</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>Feeling tired or having little energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>Poor appetite or overeating</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6.</td>
<td>Feeling bad about yourself — or that you are a failure or have let yourself or your family down</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7.</td>
<td>Trouble concentrating on things, such as reading the newspaper or watching television</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8.</td>
<td>Moving or speaking so slowly that other people could have noticed, or the opposite — being so fidgety or restless that you have been moving around a lot more than usual</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9.</td>
<td>Thoughts that you would be better off dead, or of hurting yourself in some way</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**add columns**

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card.)

**TOTAL:**

---

10. If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people.

- Not difficult at all
- Somewhat difficult
- Very difficult
- Extremely difficult

*Version formatted by Macarthur Foundation. Copyright © Pfizer, Inc. 1999. Developed by R Spitzer and J Williams et al. with an educational grant from Pfizer. May be reproduced for clinical use.*
Using Rating Scales

- Only as good as their information input
  - Patients may have a “positive ROS” vs. or may falsely deny having any symptoms
- Imperfect sensitivity/specificity numbers
  - PSC-17 (Internalizing) and major depression
    - 73% sensitivity, 74% specificity
  - SMFQ score and major depression
    - 60% sensitivity, 85% specificity
  - PHQ-9 and major depression (adolescent)
    - 73% sensitive, 94% specificity
Tips for Overcoming Screening Barriers

• Address where this fits in the office flow
  • Adol well child packet for waiting room...

• Develop an office procedure for responding to a child in crisis
  • Know mental health resources in community
  • Know your County crisis line number

• Practice asking questions in a manner which projects your wanting to know...
  • “Have you been feeling down or low recently?”
  • Not “You don’t feel depressed do you?”
After screening, assess

- Review confidentiality and its limits
- Talk to teen alone and follow up on positive screening answers
  - Project interest in them, how they are doing
- Offer support and validation
  - “sounds like things are very hard for you right now”
- May diagnose Major Depression after a “SIGECAPS” neuro-vegetative symptom review (next slide)
Depression Symptom Mnemonic

- Major Depression per the DSM-5
- 2 weeks of depressed mood plus 4 of the following changes (5 if mood is just irritable):
  - Sleep
  - Interest
  - Guilt
  - Energy
  - Concentration
  - Appetite
  - Psychomotor
  - Suicidality
Clinical judgment trumps all

• You may judge child has “Unspecified Depression” per DSM-5, even if not all specific criteria are met
  • Depressive symptoms with decreased functioning
  • Enough basis to initiate referrals for therapy
Asking About Suicidality

- Part of every depression evaluation
- Start broad
  - “Ever wish that you weren’t around?”
  - “Ever thought about killing yourself?”
- If positive, get specific
  - “In the past month, have you thought about killing yourself?”
  - “Have you made any plans for how you would kill yourself? What would you do?”
Why Ask? Because Suicidality in Young People is Common

US High school students’ self report in 2017, regarding the past 12 months:

<table>
<thead>
<tr>
<th>US</th>
<th>Alaska</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.2%</td>
<td>22.8% seriously considered suicide</td>
</tr>
<tr>
<td>13.6%</td>
<td>20.7% made a suicide plan</td>
</tr>
<tr>
<td>7.4%</td>
<td>12.1% attempted suicide</td>
</tr>
<tr>
<td>2.4%</td>
<td>4.2% needed treatment</td>
</tr>
</tbody>
</table>

CDC. Youth Risk Behavior Surveillance — 2017
Suicide Risk Factors

- Past suicide attempts (greatest risk factor)
- Mental health or substance use disorder
- Recurrent self harm
- Family history of suicidal behavior
- Exposure to real or fictional accounts of suicide
- Parental mental health problems or substance abuse
- Gay or bisexual orientation
- History of child abuse
- Chronic medical illnesses (e.g. diabetes, epilepsy)
- Victim of bullying (e.g. cyberbullying)
Self Harm (includes cutting)

- Not identical to suicidality
  - But is a risk factor for suicide attempts
- Self Harm Is Common
  - ~15% of all US teenagers tried this at least once
- Friends or family usually know about it (~75%)
- Is usually planned out in advance
- Happens at home \( \frac{3}{4} \) of the time
- Recurrent self harm = need for psychotherapy

Why would kids self injure?

• Affect Regulation
  • Temp. distract from an intolerable mood state
• Self Punishment
• Interpersonal Influences
  • Friend does this, wanted to try too
• Anti-dissociation
  • An attempt to ground back in reality
• Anti-suicide
  • Self reports of it replacing a suicide attempt
What you can do for depression

(before considering medications)
Things You Can Do for Depression

• Schedule frequent follow up visits
  • Healthcare provider engagement alone has been shown to reduce suicidality
  • Says in essence “I care” and want to see you again

• Recommend and coach on:
  • behavioral activation, exercise
  • increased peer interactions
  • good sleep hygiene
  • reducing stressors, if possible
  • support groups, if they are available
More of What You Can Do

- Give them a crisis plan or phone number
  - Alaska Careline 1-877-266-4357
  - 800-SUICIDE or 800-273-TALK (covers AK Careline overflow calls)
  - Can be on your depression care handouts
- Moderate/severe cases refer sooner than later to counseling
- Provide psychoeducation about depression, and say that it does get better
- Talk about restricting access to lethal means
  - Guns and suffocation account for the vast majority of completed suicides
Review Basic Home Safety Recommendations

- Follow regular routines
- Parents pick your battles, stay low-key
- Provide appropriate supervision
  - not left home alone for hours
- For active suicidality restrict access to:
  - Knives and razors
  - Firearms
  - Materials that can be used for strangulation
  - Medications, including OTC, of all family members
Provide an Information Handout

**Child Depression Resources**

**Books for Adults:**
- *The Childhood Depression Sourcebook* (1998), by Jeffrey Miller
- *The Explosive Child* (2001), by Ross Greene

**Books for Kids:**
- *Taking Depression to School* (2002), by Kathy Khalsa (for young children)
- *Feeling Good: The New Mood Therapy* (1999), by David Burns (for adolescents)

**Crisis Hotlines:**
- **TeenLink**
  - Seattle-based teenagers with professional training and support, 6-10PM daily
  - r366-teenlink
- **National Hotline**
  - 1-800-273-TALK

Find local line numbers on [www.suicidehotlines.com/washington.html](http://www.suicidehotlines.com/washington.html)

**Websites families may find helpful:**
- Guide to depression medications from multiple professional organizations: [www.parentmedguide.org](http://www.parentmedguide.org)
- National Institute of Mental Health: [www.nimh.nih.gov](http://www.nimh.nih.gov)
- American Academy of Child and Adolescent Psychiatry: [www.aacap.org](http://www.aacap.org)
- CMAP parent and family information: [www.dhso.state.tx.us/programs/CMAFPeddED.shtml](http://www.dhso.state.tx.us/programs/CMAFPeddED.shtml)

(Example from palforkids.org)

**Family Support Action Plan**

**What a Parent Can do to Help Their Child/Adolescent**

Family Support is a vital component in your child/adolescent’s recovery from depression. It makes you a more engaged participant in your child/adolescent's health care and helps rebuild your child/adolescent's confidence and sense of accomplishment. However, it can also be extremely difficult—and at all, when your child is depressed, she probably doesn't feel like accomplishing anything at all.

To help with Family Support, set goals to help you focus on your child/adolescent’s recovery and recognize your child/adolescent’s progress. Find things that have helped your child/adolescent in the past—identify goals that are simple and realistic and match your child/adolescent’s natural “style” and personality. Work on only one goal at a time.

**Adherence to Treatment Plan:** Following through on health advice can be difficult when your child/adolescent is down. Your child/adolescent’s success will depend on the severity of his/her symptoms, the presence of other health conditions, and your child/adolescent’s comfort level in accepting your support. However, your child/adolescent’s chances for recovery are excellent if you understand how you and your family naturally prefer to deal with your child/adolescent’s health problems. Knowing what barriers are present will help you develop realistic health goals for your child/adolescent. Example goals: Remember to give your child/adolescent his/her medications. Participate in counseling. Help your child/adolescent keep appointments.

**MY GOAL:**

- Relationships. It may be tempting for your child/adolescent to avoid contact with people when s/he is depressed, or to “shut out” concerned family and friends. Yet, fulfilling relationships will be a significant part of your child/adolescent’s recovery and long-term mental health. Understanding your child/adolescent’s natural reclusive style for avoiding or accepting help should guide the design of your Family Support plan. Example goals: Encourage your child/adolescent to talk with a friend every day. Attend scheduled social functions. Schedule times to talk and “just be” with your child/adolescent.

**MY GOAL:**

- **Nutrition and Exercise.** Often, people who are depressed don’t eat a balanced diet or get enough physical exercise—which can make them feel worse. Help your child/adolescent set goals to ensure good nutrition and regular exercise. Example goals: Encourage your child/adolescent to drink plenty of water. Eat fruits and vegetables. Avoid alcohol. Take a walk once a day. Go for a bike ride.

**MY GOAL:**

- **Ritual and Exercise.** If spirituality has been an important part of your child/adolescent’s life in the past, you should help to include it in your child/adolescent’s current routine. Also, even though s/he may not feel as motivated, or get the same amount of pleasure as s/he used to, help him/her commit to a fun activity each day. Example goals: Read a happy event. Do a hobby. Listen to music. Attend community or cultural events. Meditate. Worship. Go for family activities. Take your child/adolescent to a fun place s/he wants to go.

**MY GOAL:**

(Adapted with permission from Encouragement Healthcare)
Provide Management

- Follow up appointment in 2-4 weeks
  - Check if situation is getting worse
  - Staying engaged is a valuable intervention
- Repeating a rating scale helps monitor
- Psychotherapy referral, and follow up
Treatment

• Psychotherapy: the safe first line intervention
• Randomized controlled trials support:
  • CBT: Cognitive Behavior Therapy
  • IPT: Interpersonal Therapy (few people do this)
• CBT
  • Cognitive distortions that impact our feelings
    • i.e. “everything goes wrong for me”
  • Behavior that impacts our feelings
    • i.e., physical inactivity lowers mood
  • Usually requires “homework” for patient to do things in-between treatment sessions
Other Therapies

• Supportive counseling
  • Addressing current stressors
    • often done, less evidence supported than CBT/IPT

• Psychodynamic therapy
  • Freudian style, for longer term treatment

• Any therapy can be effective when there is a good treatment alliance with the therapist

• All therapy is less effective when:
  • Hopeless
  • Suicidal
  • Active family conflict/abuse
  • Weak alliance with therapist
Engaging Patients with Therapy

• As few as 50% will attend a single appointment after your referral
• Find what motivates patient/family
  • Link pursuit of therapy as the best means to achieve that end
  • Not because you say so, but because they want help for what motivates them
• Address family member ambivalence
• Seek care by insurer-covered providers
• Troubleshoot at follow up appointments
Depression Medications
There are Evidence Supported SSRIs for Adolescent Depression

<table>
<thead>
<tr>
<th>Medication</th>
<th>Usual Adolescent Starting Dose</th>
<th>Increase Increment (after 4-6 weeks)</th>
<th>Max Dosage</th>
<th>Youth RCT benefits</th>
<th>Youth FDA Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoxetine</td>
<td>10mg/day</td>
<td>10-20mg</td>
<td>60mg</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>(Prozac)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citalopram*</td>
<td>10mg/day</td>
<td>10-20mg</td>
<td>40mg</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>(Celexa)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Escitalopram</td>
<td>5mg/day</td>
<td>5-10mg</td>
<td>20mg</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>(Lexapro)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sertraline*</td>
<td>25mg/day</td>
<td>25-50mg</td>
<td>200mg</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>(Zoloft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not FDA approved for depression

RCT=randomized controlled trial

TADS—Treatment of Adolescent Depression Study

- 439 adolescents
- 12 week treatment
- Moderate to severe depression
  - ~30% with suicidality
- More than half had comorbid psychiatric illness
- Community and academic centers
- Randomized to:
  - fluoxetine
  - fluoxetine plus CBT
  - CBT alone
  - placebo

TADS, J Am Acad Child Psychiatry, 2005
TADS Medication Protocol

• Starting dose fluoxetine 10mg
• Week two, increased to 20mg (if no side effects)
• Dose could be increased at weeks 4, 6, 9 and 12 if still significant symptoms
• Mean final dose was ~30mg/day
TADS Results

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Response Rate (CGI ≤2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoxetine plus CBT</td>
<td>73%</td>
</tr>
<tr>
<td>Fluoxetine</td>
<td>62%</td>
</tr>
<tr>
<td>CBT</td>
<td>48%</td>
</tr>
<tr>
<td>Placebo</td>
<td>35%</td>
</tr>
</tbody>
</table>

- Suicidal “events” decreased with all active treatments
  - At 36 week follow up more common with fluox alone (14%) than Combination (8%), or CBT (6%)
Patients received any form of community care from weeks 12-36 as the study treatments ended after week 12.

Fluoxetine use improved their depression more quickly.
But Aren’t SSRI’s Dangerous for Kids?

- FDA Black Box in 2004, based on 24 studies of both depression and anxiety
- For all diagnoses SSRI suicidality relative risk was 2.0 (95%CI=1.28-2.98) on medication versus placebo

T Hammad, T Laughren, Suicidality in pediatric patients treated with antidepressant drugs, 2006
Population Data Finds That SSRIs Are Suicide Preventative

- In the U.S: for every 1% increase in adolescent use of antidepressants, this correlates with a decrease of 0.23 suicides per 100,000
- 2 years after the black box warning:
  - Antidepressant use decreased 31%
  - Intentional drug poisonings increased 21%

Olsson, M et al, Relationship between antidepressant medication treatment and suicide in adolescents, 2003
Gibbons RD et al, Early evidence on the effects of regulators’ suicidality warnings on SSRI prescriptions and suicide in children and adolescents, 2007
Lu CY et al, Changes in antidepressant use by young people and suicidal behavior after FDA warnings and media coverage, 2014
How I Make Sense of SSRI Suicidality

- Agitation/anxiety is a SSRI side effect
  - Common side effect, happens early on
  - If make a depressed or anxious person even more anxious or irritable via a side effect, logical to have “I cant take this” thoughts

- SSRI induced suicidal thoughts CAN happen, but they usually don’t
  - Why I do an early check in with patient about 1-2 weeks after starting medicine
    - Ask about irritability, agitation, anxiety, suicidality

Bridge et al, JAMA 2007
Where I see the role of SSRI in Child Depression

• Start with talk therapy alone if depression is not severe

• If not significantly better within 1-2 months, consider a medication trial

• If a moderate to severe depression, consider starting SSRI simultaneous with talk therapy
  • Explicit goal to get better more quickly
Medicating Major Depression

- Start low, go slow
- Change one medicine at a time
- Use a full dose range, wait 4-6 weeks before each increase
- Check in with patient ~2 weeks after starting to ensure no new suicidality
## SSRI Monitoring

<table>
<thead>
<tr>
<th>SSRI Monitoring recommendation</th>
<th>Frequency Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure Height and weight</td>
<td>At baseline and each follow-up, at least every 6 months (occasional weight gain problems)</td>
</tr>
<tr>
<td>Inquire about bleeding/bruising</td>
<td>At least once after initiation of medication</td>
</tr>
<tr>
<td>Inquire about activation symptoms</td>
<td>Screen for new irritability or agitation around week 2 &amp; week 4-6</td>
</tr>
<tr>
<td>Inquire about new suicidal thoughts</td>
<td>Screen for suicidality around week 2, week 4-6, and other visits such as after dose increases</td>
</tr>
<tr>
<td>Determine if treatment response</td>
<td>Repeat disorder specific rating scale(s) until remission is achieved. Increase at 4-6 week intervals if insufficient benefit.</td>
</tr>
</tbody>
</table>

From Hilt R, Pediatric Annals, 2012
What Other Meds Can Be Tried?

• If first SSRI fails, a second SSRI will work ~50% of the time
  • Choose 2nd agent from the prior list (fluoxetine, sertraline, citalopram/escitalopram)

• How to switch?
  • If a major side effect—stop, wait till resolves, then start new med
    • The “side effect” may not be medication related
  • Consider a ~1 month cross taper (low dose of new med, at same time as starting lowered dose of old med)
  • If was on fluoxetine, long half life means it auto-tapers after stopping over 2 weeks.

*Not FDA approved for depression treatment in children
Other Meds for Depression?

- After two SSRI failures, there are other options:
  - Bupropion (Wellbutrin®)*
    - More agitation side effects
    - A reasonable third choice if two SSRI’s failed, or an adult
    - Reasonable if adolescent has ADHD too
  - Mirtazapine (Remeron®)*
    - sedating, increases appetite
    - Two negative child RCT’s
      - But older adolescents may respond like adults do for depression

*Not FDA approved for depression treatment in children
Other Agents

- **Venlafaxine (Effexor®)**
  - SNRI side effects, withdrawal symptoms worse than SSRIs
  - Does have some research support for adolescent depression
  - I’d only recommend if an older adolescent with SSRI failure
- **Duloxetine (Cymbalta®)**
  - SNRI like venlafaxine, but tends to be better tolerated
  - FDA indicated for GAD, but no data on youth depression
- **Avoid Tricyclic Antidepressants**
  - NOT recommended for depression in kids: studies show they are ineffective, in addition to toxicity risks
- **Trazodone (Desyrel®)**
  - Occasionally useful as sleep aide, usually up to 100mg
  - Full adult antidepressant doses are typically not tolerated

*Not FDA approved for depression treatment in children*
Other Medications a Psychiatrist Considers

- Two higher medical risk options
- Atypical antipsychotics
  - When medication monotherapy only yields partial response, some would consider addition of an atypical antipsychotic
- Lithium
  - A valid antidepressant to try, but greater medical side effects and could be fatal if an overdose.
Maternal Depression

A few words about the other screening recommendation from AAP
Maternal Depression

- “Maternity blues” for 2 days to 2 weeks right after delivery in ~ ½ of moms
  - Usually does not impair functioning
- Major Depression in ~12% of pregnant or postpartum moms
  - Highest risk around 6 weeks post partum
  - Similar depression rates pre- and post-partum

Hilt R, Postpartum depression screening, Pediatric Annals, 2015
Maternal Depression Impacts Kids

- Impaired social interactions
- Delays in development
- Failure to thrive
- Attachment problems
- Behavior problems
- Mood disorders

- With treatment, child psychiatric symptoms and functioning improve

MF Earls et al, Incorporating recognition and management of perinatal and postpartum depression into pediatric practice, 2010
Maternal Depression

• PHQ-2 pre-screen of adult depression:
  • Over the past 2 weeks:
    • Have you ever felt down, depressed, or hopeless?
    • Have you felt little interest or pleasure in doing things?
      • A “yes” to either question indicates the need for further screening/evaluation, such as PHQ-9 or Edinburgh Postnatal Depression Scale
What do you do for positives?

For milder symptoms, let mom know:

1. she is not alone
2. she is not to blame
3. she will get better (with family and provider support)
For More than Mild Maternal Depression

- Referral for therapy and/or medication
  - To mother’s own primary care or obstetrician (if was screened by a pediatrician)
  - To a mental health specialist
Books adults may find helpful:

- The Childhood Depression Sourcebook (1998), by Jeffery Miller
- The Depressed Child: Overcoming Teen Depression (2001), by Mariam Kaufman

Books kids may find helpful:

- Feeling Good: The New Mood Therapy (1999), by David Burns (for adolescents)
  - “Do it yourself” CBT
- Taking Depression to School (2002), by Kathy Khalsa (for young children)
- Where’s Your Smile, Crocodile? (2001) by Clair Freedman (for young children)
Questions?

Contact info:
• robert.hilt@seattlechildrens.org

Other free resources, rating scales, parent handouts available at
• http://www.seattlechildrens.org/PAL
• http://www.aacap.org/AACAP/Families_and_Youth/Resource_Centers/Home.aspx