Diagnosis and Treatment of Mood Disorders in Children and Adolescents

David J. Miklowitz, Ph.D.

Professor of Psychiatry
Director, Child and Adolescent Mood Disorders Program
Director, Integrative Study Center on Mood Disorders
Division of Child and Adolescent Psychiatry
UCLA Semel Institute

www.semel.ucla.edu/champ
(310) 825-2836
Symptoms of Depression

Major Depressive Disorder: 2 weeks or more of:

- Low mood or sadness
- Tearfulness
- Low self-esteem
- Trouble concentrating
- Increase or Decrease in Appetite
  - Crave Sweets or Carbohydrates
- Sleeping too much or too little
- Loss of interest in activities/boredom
- Some people also:
  - feel really tired or low in energy
  - wish they weren’t alive
  - feel worthless or guilty
  - talk or move slowly
  - lack of thoughts
Symptoms of Bipolar, Mania (requires 1 week and/or emergency treatment)

- Elated mood
- Increased energy and activity
- Decreased need for sleep
- Increased sexual thoughts
- Talking fast
- Loss of self-control
- Being overconfident or unrealistic
- Easily distracted, Racing Thoughts, Lots of ideas
- Irritability!
How Common are Mood Disorders in Teens?

- Episodes of major depression: 9%
- Bipolar disorder: 1%-2%
- 30% of college students report depression with functional impairment
Myths About Moods in Teens and Kids

- It will go away (soon) on its own
- “It’s a phase”: everybody gets this way
- You ought to "just snap out of it!"
- Getting treatment is a sign of weakness
- People who talk about suicide are just trying to get attention
- Mood impaired kids are bad or lazy
- Teenagers are "just moody"
Depression eventually converts to bipolar I or II disorder in 30% of teenagers

15%-40% in 2 yrs.
20%-49% in 4 yrs.

Risk factors:
- Severe depression with psychosis
- Rapid onsets and offsets
- Subthreshold hypomania symptoms
- Family history of mania

Pediatric Bipolar Disorder (BD)

- 1%-2% lifetime prevalence\(^1\)
- At risk for the 4 S’ s\(^2\):
  - School problems
  - Substance abuse
  - Suicide
  - Social dysfunction
- High rate of familial transmission\(^3\)
- Stronger genetic load in youth than in adults\(^4\)
- Early onset = poor prognosis\(^5\)
- Stress-generating and stress sensitive

Increase in diagnosis of BD in youth

Figure. National trends in visits with a diagnosis of bipolar disorder as a percentage of total office-based visits by youth (aged 0-19 years) and adults (aged ≥20 years).

Moreno et al., 2007

40-fold increase in rate of dx
A 10-year Old Girl’s Description of Bipolar Disorder

“When I feel happy, I get real bouncy… I’m hopping all over the place, and my mind seems to be focused on one thing for a short time. Sometimes, I don’t necessarily feel bouncy, just kind of light and airy, like a butterfly. I sort of flit and float from place to place, physically and in my mind.

When I feel depressed, I’m like…dead. I just sit there lifelessly, and my body just sort of flops around, like a Beanie Baby. Also, my mind just sort of drifts away and wonders aimlessly into space.”

Birmaher, 2004
Bipolar Youth Have Less Time Well and More Time in Mixed Periods Than BP Adults


* p = .05; ** p < .01; *** p = < .001
School Dysfunction

- Poor/failing grades
- Distractible (lack of motivation/interest)
- Harass teachers (oppositional / grandiose)
- Unrealistic career/recreational strivings
- Frequent fights or explosive outbursts
- Inability to concentrate (racing thoughts)
- Frequent changes in activities and subjects
Bipolar NOS (DSM-IV)

- Manic or hypomanic episodes of insufficient duration (including very rapid cycling)
- Manic symptoms, but insufficient number co-occurring
- Repeated hypomania without a depressive episode
- Major depressive episodes with subthreshold manic features
Conversion from BP-NOS to BP-I/II Stratified by Family History of BP
(Birmaher et al., 2009; Archives of Gen Psychiatry)
Grandiose or Badass?

A 10-year old boy jumps up in front of the classroom and claims he can teach the class better than any teacher, and then tells the class to “turn to page 12” in their book.

A 16-year old says he has developed an online business to import shoes from China, is developing a version of Google Earth that can see into people’s houses, and has bred a “phosphorescent plant”
Grandiose Delusions or Playful Fantasy?

- A 5 year old girl says she has 500 brothers, that half of them live on the moon, and that her teachers have told her it’s OK to play on the roof at recess.
What’s the Diagnosis?

- 8 year old male
- Chaotic sleep patterns
- Trouble concentrating in school, high motor activity
- Explosively violent
  - Slams doors until they break
  - Cut cat with scissors
  - Chased mom with knife, cursing at her
  - Threatened to kill siblings in sleep
  - Expresses remorse later, “I wish I was dead”
What’s the Diagnosis?

- 16 year old female
- Severe irritability exacerbated by her menstrual period
- Starts laughing until cries
- Self-cutting
- Substance abuse
- Sexual acting out

- Rageful, violent
  - Has attached brother with knife
  - Breaks windows
FIND Criteria (Fristad)

- **Frequency** – happening more often than developmentally okay
- **Intensity** – more severe than age appropriate
- **Number** – excessive amount within episode
- **Duration** – lasts much longer than developmentally appropriate
Always ask:

- Is there a history of bipolar disorder in a first or second degree relative?

- Probe further on possible indicators:
  - Periods of hospitalization
  - Alcohol or substance abuse
  - Suicide attempts/completions
  - Periods of low functioning
Treatments for Childhood-Onset Bipolar Disorder
## FDA-Approved Bipolar Disorder Treatments in Adults

<table>
<thead>
<tr>
<th>Agents</th>
<th>Manic</th>
<th>Mixed</th>
<th>Maintenance</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ATYPICALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aripiprazole (Abilify®)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>—</td>
</tr>
<tr>
<td>Olanzapine (Zyprexa®)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>—</td>
</tr>
<tr>
<td>Quetiapine (SEROQUEL®)</td>
<td>+</td>
<td>—</td>
<td>—</td>
<td>+</td>
</tr>
<tr>
<td>Risperidone (Risperdal®)</td>
<td>+</td>
<td>+</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Ziprasidone (Geodon®)</td>
<td>+</td>
<td>+</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td><strong>OTHER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbamazepine ER (Equetro™)</td>
<td>+</td>
<td>+</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Divalproex DR (Depakote®)</td>
<td>+</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Divalproex ER (Depakote® ER)</td>
<td>+</td>
<td>+</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Lamotrigine (Lamictal®)</td>
<td>—</td>
<td>—</td>
<td>+</td>
<td>—</td>
</tr>
<tr>
<td>Lithium (Lithobid®, Eskalith®)</td>
<td>+</td>
<td>—</td>
<td>+</td>
<td>—</td>
</tr>
<tr>
<td>Olanzapine/fluoxetine (Symbyax®)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>+</td>
</tr>
</tbody>
</table>

This chart does not imply comparable efficacy or safety profiles.

All brand names and product names used in this slide are trade names, service marks, trademarks, or registered trademarks of their respective owners.
Family Focused therapy (FFT)

For persons with bipolar disorder

David Miklowitz, Ph.D.
Family-Focused Treatment (FFT) of Bipolar Disorder

- Weekly/biweekly outpatient sessions over 4-9 months
- Begins with a diagnostic assessment

- Engagement phase
- Psychoeducation about bipolar disorder (symptoms, early recognition, etiology, treatment, self-management)
- Communication enhancement training (behavioral rehearsal of effective speaking and listening strategies)
- Problem-solving skills training

That’s me on that string…my son is like a big baby puppeteer, keeping us all on a string with his vicious mood swings. Worst of all he seems delighted that he can do it.”

A mother’s perspective....
Randomized Trials of FFT in Children with Bipolar Spectrum Disorders
The Colorado/Pittsburgh Randomized Trial of FFT for Bipolar Adolescents (NIMH 62555) (N = 58)

Patient Begins in an Acute Mood Episode

Diagnostic and Family Assessment

Random Assignment

Trimonthly follow-ups

1-year follow-up and family reassessment

2-year follow-up

Enhanced Care (EC):
- pharmacotherapy visits and medication
- 3 sessions of family education
- Crisis management as needed

FFT plus pharmacotherapy visits and medication
Adolescents With Bipolar Disorder in FFT: Depression Scores Over Time

![Graph showing depression scores over time for adolescents with bipolar disorder.](image)

Treatment x time interaction, linear effect $F [1, 5014] = 9.15, P = 0.0025$

Miklowitz DJ, et al. *Arch Gen Psychiatry* 65(9):1053-1061, 2008.
Indicated Prevention Study
NIMH R34-MH077856

- 12 Session FFT model
- Children (9-17 yrs) with first-degree bipolar I relative, and either:
  - Bipolar-NOS (usually meets symptom but not duration criteria)*
  - Cyclothymia
  - Major depressive disorder (MDD)
  - Active depressive or hypomanic symptoms in last 2 weeks
Colorado/Stanford Early Intervention Trial: 40 Kids with Bipolar Parents (n=35) or siblings (n=5)

Age, M + SD 12.3 ± 2.8 (range 9-17)
Female, No. (%) 17 (42.5%)

Bipolar NOS 20 (50%)
Cyclothymia 3 (7.5%)
Major Depression 17 (42.5%)

Randomly assigned to:

- 12 FFT Sessions for 4 months (n=21)
- Enhanced Care (1-2 family education sessions) (n=19)
Family intervention accelerates recovery from index episodes in youth at risk for BD

High EE, HR = 4.59, \( p = .014 \)
Low EE, HR = 1.46; \( p = .11 \)
Summary

- Early-onset bipolar disorder is common and disabling
- Even optimal pharmacotherapy provides less than ideal prophylaxis in kids with bipolar disorder
- Psychosocial treatment should be a key component of the outpatient management of most bipolar patients
- Can the onset of bipolar disorder be prevented?
What studies are going on in CHAMP?

(1) **High-risk FFT trial**: Kids (9-17) with a bipolar first or second degree relative: comparing two therapies
   - Neuroimaging sub-studies
   - EEG, immunological functioning

(2) **Mentalization-based therapy** for bipolar adolescents who have made a suicide attempt

(3) **Community registry study**: persons with depression/bipolar disorder in at least 2 generations

(4) **Mindfulness-based cognitive therapy** for kids with bipolar disorder or psychosis
Child and Adolescent Mood Disorders Program (CHAMP)

www.semel.ucla.edu/champ
(310) 825-2836