Pediatric Bipolar Disorder

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Overview of Talk

Bipolar Disorder
- Understanding Differences between Adults & Children

Diagnosis of Pediatric Bipolar Disorder

Treatment of Pediatric Bipolar Disorder
Special Thanks

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Bipolar Disorder In Adults

A Brief Review

Peace-Wirt, Indiana, by Gage @ bipolar.about.com
Epidemiology & Impact

Prevalence:
- BD I: 1.21-1.6% prevalence (3.3-4.0 million)
- BD spectrum: 2.6-6.5% prevalence

Impact
- $24-45 billion/year
- 2-3 times more likely to divorce
- Increased substance abuse, incarceration
- 6th leading cause of disability

Suicide
- Nearly 30% make a suicide attempt; 18% complete
- Risk of completed suicide is over 20 times the risk in the general population

Angst, 1998; Judd et al., 2002; Klienman, et al., 2003; Kessler et al, 1994; Stimmel, 2004; Chen & Dilsaver, 1996

Diagnostic Criteria

DSM-IV Manic episode
- Persistent elevated, expansive, or irritable mood for at least one week and:
  - Inflated self-esteem; decreased need for sleep; talkativeness; racing thoughts; distractibility; increased activity; and daring behaviors
  - Impairment in psychosocial functioning
- Not only due to other psychiatric and medical conditions

DSM-IV Hypomanic episode: less intensity than mania, at least 4 days

DSM-IV-TR, 2000
Signs & Symptoms of Mania

- Increased energy, activity, and restlessness
- Excessively "high," overly good, euphoric mood
- Extreme irritability
- Racing thoughts and talking very fast, jumping from one idea to another
- Distractibility, can't concentrate well
- Little sleep needed
- Unrealistic beliefs in one's abilities and powers
- Poor judgment
- Spending sprees
- A lasting period of behavior that is different from usual
- Increased sexual drive
- Abuse of drugs, particularly cocaine, alcohol, and sleeping medications
- Provocative, intrusive, or aggressive behavior
- Denial that anything is wrong

GRAPES

G randiosity
R acing Thoughts
A ctivity is goal directed, hypersexual
P ressed Speech
E lation/ elevated or expansive mood
S leep need is decreased
Diagnostic Criteria

DSM-IV Major depression episode

• Persistent depressed mood or irritability for at least 2 weeks and:
  • Motivation, sleep, appetite, concentration, and energy disturbances
  • Guilt, suicidal thoughts or behaviors
  • Impairment in psychosocial functioning
• Not only due to other psychiatric and medical conditions

Signs & Symptoms of Depression

• Lasting sad, anxious, or empty mood
• Feelings of hopelessness or pessimism
• Feelings of guilt, worthlessness, or helplessness
• Loss of interest or pleasure in activities once enjoyed, including sex
• Decreased energy, a feeling of fatigue or of being "slowed down"
• Difficulty concentrating, remembering, making decisions
• Restlessness or irritability
• Sleeping too much, or can't sleep
• Change in appetite and/or unintended weight loss or gain
• Chronic pain or other persistent bodily symptoms that are not caused by physical illness or injury
• Thoughts of death or suicide, or suicide attempts

NIH Publication No. 3679
## SPACE DRAGS

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## Bipolar Mood States

### Mood States:
- Depression
- Euthymia
- Hypomania
- Mania
- Mixed States

Youngstrom et al, 2007
Classic Bipolar I

Distinct episodes of marked mania and depression (variable interepisode interval – may be shorter in children)

Days

Depression

Days

Youngstrom et al, 2007

Rapid Episoding (4 episodes/year) with Mixed States

Youngstrom et al, 2008
Subtypes of Bipolar Disorder

Bipolar I disorder
- Manic
- Depressed
- Mixed
- Rapid cycling
- Psychotic

Bipolar II disorder (hypomania and MDD episodes)

Cyclothymic disorder (hypomania and mild depression)

Bipolar Not Otherwise Specified (NOS)

Genetic “Iceberg”

Recognized (Bipolar I, II)

Spectrum (missed bipolar I & II; Cyclothymia, NOS)

Unimpaired (low loading, high functioning family members, “hyperthymic”)
Bipolar Disorder In Children

The latest “fad” Diagnosis?

Popular Press Coverage
- Oprah
- 20/20
- Time magazine, Newseek
- The Evening News with Dan Rather
- The Early Show
- NPR
Visits with a diagnosis of PBD as a % of total office-based visits by youth and adults

Diagnosis of Bipolar Disorder in Children & Adolescents

Challenges in Diagnosis

Symptom Overlap

High Rates of Comorbidity

Variability in Symptom Presentation

Cycling

No Clear Pediatric-Specific Diagnostic Criteria

Lack of Standardized Assessments

Youngstrom et al. 2005
### Overlap of Symptoms

<table>
<thead>
<tr>
<th>Symptom Description</th>
<th>PBD Conditions</th>
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<tr>
<td>Sadness, adhedonia, irritable mood</td>
<td>ADHD, ODD, CD</td>
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<tr>
<td>Rages, aggressive behavior, defiance</td>
<td>ADHD, ODD, CD</td>
</tr>
<tr>
<td>Poor judgment</td>
<td>ADHD, ODD, CD</td>
</tr>
<tr>
<td>Grandiosity</td>
<td>CD, psychopathy, substance abuse</td>
</tr>
<tr>
<td>Increased energy</td>
<td>ADHD</td>
</tr>
<tr>
<td>Distractibility</td>
<td>ADHD</td>
</tr>
<tr>
<td>Pressured speech</td>
<td>ADHD</td>
</tr>
<tr>
<td>Racing thoughts</td>
<td>Expressive language disorder, substance abuse</td>
</tr>
</tbody>
</table>

Youngstrom et al, 2008

### Comorbidity of PBD

- ADHD: 40-90%
- ODD: 30-90%
- CD: 30-90%
Variability in Symptom Presentation

He’s got Conduct disorder!
Or wicked ADHD… or both!

Seems “within normal limits” to me.

A textbook case of major depression

Nonpathological Extremes

Birthday Party -- Too much cake & presents

Death of pet

Youngstrom et al, 2007

Youngstrom et al, 2007
No Pediatric-Specific Criteria

- “Rages” & aggression?
- Irritability?
- Cycling or “episoding”
  - Chronic irritability?
  - Severe Mood Dysregulation Disorder?

Youngstrom et al, 2007

Cycling (Episoding)

**Rapid Cycling**: 4 Episodes per Year

**Ultra-rapid Cycling**: Extremely brief and frequent manic episodes lasting less than 4 days

**Ultradian Cycling**: Daily cycling, lasting minutes to hours

Geller & Cook, 2000; Brotman et al., 2006
Ultra-rapid, Ultradian, or Mixed?

Youngstrom et al, 2008

Models of “Mixed”

Distinct State

Ultradian Cycling

Chocolate Milk

Fudge Ripple

Different Episode Types at Different Ages?


Youngstrom et al, 2008

Screening and Diagnosing Pediatric Bipolar Disorder
ABBHH Protocol for PBD

1. Screen for Mania
2. Obtain Evidence of Episodes
3. Evaluate Diagnostic Criteria
4. Extend the Window of Assessment

#1: Screen for Mania

Child Mania Rating Scale
- Pavuluri et al., 2006
General Behavior Inventory
- Youngstrom et al., 2001
Young Mania Rating Scale
- Gracious et al., 2002
Child Behavior Checklist
- Achenbach, 1991
#2. Obtain Evidence of Episodes

Sporadic transient spells start
Sleeps 20 hours per day
Significant sleep disturbance
More severe transient episodes
Threatens others, tries to jump out of car

#3. Evaluate Diagnostic Criteria

Use PBD-Specific “Handle” symptoms:

- **G** randiosity
- **R** acing Thoughts
- **A** ctivity is goal directed, hypersexual
- **P** ressured Speech
- **E** lation/ elevated or expansive mood
- **S** leep need is decreased
Evaluate the Severity of GRAPES

Apply FInD Criteria:

- Frequency of the symptom
- Intensity of the symptom
- Duration of the symptom

Irritability, rage, and/or aggressive behavior is considered ONLY for severity

What about Irritability?

Course and Outcome of Bipolar Youth study

- Less likely to become depressed
- Irritability was episodic, not chronic
  - Chronic = severe mood dysregulation
Disruptive Mood Dysregulation Disorder

1. Severe recurrent temper outbursts
2. Three + times per week
3. Mood between outbursts is persistently negative
4. Present for at least 12 months
5. Present in at least 2 settings
6. At least 6, but younger than 10
7. Not bipolar
8. Nor psychotic, PDD, SUD, etc…
Summary

1. Use screening measures to help referral
2. Determine if episodes are present
3. Focus on GRAPES
4. Extend the window of assessment
   - Diagnosis is ongoing
Multi-Modal Treatment

- Medication
  - Stabilize mood & treat comorbid conditions
- Psychoeducation
- Psychosocial Interventions
  - Treat acute depression, reduce stress, regulate emotion, prevent recurrence, improve functioning, increase medication adherence
  - Sleep and mood hygiene
  - Family therapy to treat conflict, expressed emotion

Medications

Lithium

Anticonvulsants
- Divalproex (Depakote)
- Carbamazepine (Tegretol)
- Lamotrigine (Lamictal)
- Topiramate (Topamax)
- Oxcarbazepine (Trileptal)
- Gabapentin (Neurontin)

Atypical/2nd Generation Antipsychotics:
- Clozapine (Clozaril)
- Risperidone (Risperdal)
- Olanzapine (Zyprexa)
- Quetiapine (Seroquel)
- Ziprasidone (Geodon)
- Aripiprazole (Abilify)

Bourin et al., 2005; Pavuluri et al., 2004; McClellan & Werry, 1997; Smarty & Findling, 2007
RCTs: Pediatric Bipolar Disorder

- Lithium
  - 25 adolescents vs. placebo
  - Severe mood dysregulation = same as placebo

- Anticonvulsants
  - Toprimate (d/c)
  - Divalproex sodium (acute)

- Atypical Antipsychotics
  - Olanzapine
  - Aripiprazole
  - Quetiapine (ineffective)
  - Ziprasidone (unpublished)
  - Riluzole

Ongoing Studies

- Rilutek (Riluzole)
  - Amyotrophic lateral sclerosis
- Lamotrigine (Lamictal)
- Olanzapine / Fluoxetine (Symbyax)

On-Line Survey (N = 854)
Percentage on Medications

Youngstrom et al, 2007; CABF, 2002
Pharmacologic Patterns

Limited response to monotherapy is typical

Combination therapy is common

Hellander et al., 2002; Smarty & Findling, 2007

Number of Current Medications

Youngstrom et al, 2007; CABF, 2002
Lifetime Medication Exposure

- 85% exposed to 4+ meds

Pharmacologic Complexities

- Medications that may complicate treatment:
  - Antidepressants
  - Psychostimulants
- Little research on treating depression
- Attention-deficit hyperactivity disorder must be re-evaluated after mood stabilized

Youngstrom et al., 2007; CABF, 2002

Biederman et al., 1998; Smarty &
Phenomenology and Course of Pediatric Bipolar Disorders

- 62.6% received any antimanic medication at any time
- Non-antimanic medication:
  - 77.4% for stimulants or other ADHD medication
  - 64.3% antidepressants
- 67.8% two or more concurrent medication classes.
- Psychiatrists gave antimanics more than pediatricians
- Earlier recovery during eight-year follow-up was predicted by greater percent of weeks on lithium.

How do we know if Rx is working?

- Provide feedback to parents and clinicians
  - Be specific (who, what, how often, how much)
  - Be behavioral
  - Put it in writing
- Use a checklist or questionnaire
  - Day-to-day 3-5 symptom target list
  - Standardized questionnaires
- Report any side-effects to parent or clinician
Psychosocial Treatment: Targets

- Medication Adherence
- Address symptoms not treated by medication
- Improve long-term functioning (social, occupational, relational)
- Monitor progress

Psychosocial Approaches

- Parent/Family Psychoeducation
- Cognitive Behavioral Therapy
- Interpersonal Therapy
- Interpersonal and Social Rhythm Therapy
- Family Focused Therapy
- Multi-Family Therapy
- Community Support Programs
- Dialectical Behavior Therapy
Multifamily Psychoeducational Psychotherapy

- Eight, 90-minute adjunctive treatment
- Combines:
  - Psychoeducation
  - Family Systems therapy
  - Cognitive Behavioral Techniques
- Goals:
  - Learn about bipolar and treatment
  - Gain support from other families & professionals
  - Develop skills in mood management, affect regulation, problem solving, and communication.
- RCTs indicate promising efficacy


Family-Focused Treatment

Components:

- Psychoeducation
  - Distinguish age-appropriate moodiness
- Relapse prevention
- Improve adherence to treatment
  - Motivate adolescent to address disorder
- Communication Skills Training
- Problem Solving Skills Training
- Behavioral Management Training
- Focus on Wake/Sleep schedule
- Address mood disturbances in the family

Child- and Family-Focused Cognitive Behavioral Therapy

- Integrates psychoeducation, CBT, and interpersonal techniques with pharmacotherapy
- Targets: psychosocial and interpersonal stress in children and families
- Treatment Components:
  - Routine
  - Affect regulation
  - Self-efficacy and coping
  - Coping with depressive cognitions
  - Social skill building
  - Interpersonal problem solving
  - Social support

RAINBOW

- Routine
- Affect regulation
- I can do it
- No negative thoughts and live in the now
- Be a good friend/balanced lifestyle for parent
- Oh – how can I solve this problem
- Ways to get support
RAINBOW Outcomes

Open trial (n=34)
- Reduced inattention, aggression, mania, psychosis, depression, and sleep disturbance

Continuation trial
- Booster sessions and psychopharm
- Maintained gains up to 3 years

Group treatment (n=26)
- Decreased mania, increased coping and well-being

Future Therapeutic Approaches?
- Transcranial Magnetic Stimulation
- Deep Brain Stimulation
- Electroconvulsive Therapy

Stein et al., 2006
Thank you!

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