Outline

• Introductions

• Discussion of Format

• Presentation

• Comments and Questions (15-20 mins)
Overview

• **Irritability** is more of an “emotional symptoms” -> prone to anger

• **Temper outbursts** are behavioral manifestations -> anger outbursts

• Irritability and temper outbursts are frequent presenting symptoms and concerns in referred children

• Wide range of presentation of symptoms: transient irritability to chronic, frequent explosive outbursts of aggression
Irritability and temper outbursts are relatively non-specific symptoms in child psychopathology that cut across a range of disorders:

- Mood disorders
- Behavioral disorders
- Developmental disorders
- Trauma- and stress-related disorders
- Anxiety Disorders
Mood Disorders

Manic Episode

- A distinct period of abnormally and persistently elevated, expansive or **irritable mood** and abnormally and persistently increased goal-directed activity or energy, lasting at least 1 week and present most of the day, nearly every day (or any duration if hospitalization is necessary).

Major Depressive Episode

- Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, or hopeless) or observation made by others (e.g., appears tearful). (NOTE: In children and adolescents, can be **irritable mood**.)

Disruptive Mood Dysregulation Disorder

- Severe recurrent **temper outbursts** manifested verbally (e.g., verbal rages) and/or behaviorally (e.g., physical aggression toward people or property) that are grossly out of proportion in intensity or duration to the situation or provocation.
- The mood between temper outbursts is persistently **irritable or angry** most of the day, nearly every day, and is observable by others (e.g., parents, teachers, peers).
Oppositional Defiant Disorder (ODD)

• **Angry/Irritable Mood** (formalized in DSM 5)
  o Often loses temper
  o Is often touchy or easily annoyed
  o Is often angry and resentful

Conduct Disorder (CD)

• **Aggression** to people and animals
• Destruction of property
• Deceitfulness or theft
• Serious violations of rules
Intermittent Explosive Disorder (IED)

- Recurrent **behavioral outbursts** representing a failure to control aggressive impulses as manifested by either of the following:
  - Verbal aggression (e.g., temper tantrums, tirades, verbal arguments or fights) or physical aggression toward property, animals, or other individuals, occurring twice weekly, on average, for a period of 3 months. The physical aggression does not result in damage or destruction of property and does not result in physical injury to animals or other individuals.
  - Three behavioral outbursts involving damage or destruction of property and/or physical assault involving physical injury against animals or other individuals occurring within a 12-month period.
Developmental Disorders

Autism Spectrum Disorder (ASD)

- Although not a diagnostic criterion, irritability associated with autism is a frequent presenting concern
- Two medications currently FDA-approved for treatment of irritability associated with autism
  - Risperidone
  - Aripiprazole

Intellectual Disability (ID)

- Although not a diagnostic criterion, irritability associated with intellectual disability is a frequent presenting concern
Trauma- and Stress-Related Disorders

Reactive Attachment Disorder (RAD)

• B. Persistent social and emotional disturbance characterized by at least two of the following:
  o Minimal social and emotional responsiveness to others
  o Limited positive affect
  o Episodes of unexplained irritability, sadness or fearfulness that are evident even during nonthreatening interactions with adult caregivers

Posttraumatic Stress Disorder (PTSD): age 7 and older

• E. Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two or more of the following:
  o Irritable behavior or angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects
Trauma- and Stress-Related Disorders (2)

Posttraumatic Stress Disorder: age 6 and younger

- E. Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two or more of the following:
  - Irritable behavior or angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects
Anxiety Disorders

Generalized Anxiety Disorder (GAD)

- C. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms having been present for more days than not for the past 6 months)
  - Restlessness or feeling keyed up or on edge
  - Being easily fatigued
  - Difficulty concentrating or mind going blank
  - Irritability
  - Muscle tension
  - Sleep disturbance
Summary Points

1. Irritability and temper outbursts are relatively non-specific symptoms present as diagnostic criteria in a wide-variety of seemingly unrelated psychopathological categories in children and adolescents

2. The starting point for assessment and intervention is a thorough diagnostic evaluation
Differential Diagnosis: Irritability Level 2

- Persistent Irritability
  - Developmental Disorder
  - Mood Disorder
  - Disruptive, Impulse-Control, and Conduct Disorders
  - Trauma- and Stress-Related Disorders
  - Anxiety Disorders
    - ASD
    - Depress Episode
    - Manic Episode
    - ODD
    - Interm Expl DX
    - RAD
    - PTSD
    - GAD
    - DMDD
Differential Diagnosis: Temper Outbursts
Level 2

Temper Outburst Or “Meltdowns”

- Neuro-Developmental Disorders
  - ASD
  - DMDD
- Mood Disorders
  - Inter Expl Disorder
  - Conduct Disorder
- Disruptive, Impulse-Control And Conduct Disorders
  - ODD
- Trauma- and Stress-Related Disorders
  - RAD
  - PTSD
Explosive behavior is like fever. If you have a fever of 105, you know the kid is sick, but you don’t know what the kid is sick with. And so, to me, those explosive outbursts mean this child is in deep trouble. But what he’s in trouble with really needs a diagnostic assessment.

Gabriella Carlson, MD
SUNY-Stony Brook
Pediatric Bipolar Disorder

- Controversial subject addressed by significant changes in DSM-5

- “Temper Outbursts” does not equal “Bipolar Disorder” in youth

- But “irritability” and “temper outbursts” can be a prominent symptoms in youth with a diagnosis of bipolar disorder

- The hallmark of Bipolar Disorder, in youth or adults, is at least one episode of Mania or Hypomania
Criteria for Manic Episode per DSM-5

A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased activity or energy, lasting at least 1 week and present most of the day, nearly every day (or any duration if hospitalization is necessary).
Criteria for Manic Episode per DSM-5

B. **During the period of mood disturbance and increased energy or activity**, three (or more) of the following symptoms (four if the mood is only irritable) are present to a significant degree, and **represent a noticeable change from usual behavior**:

1. inflated self-esteem or grandiosity
2. decreased need for sleep (e.g., feels rested after only 3 hours of sleep)
3. more talkative than usual or pressure to keep talking
4. flight of ideas or subjective experience that thoughts are racing
5. distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli), as reported or observed
6. increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation
7. excessive involvement in activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments)
Criteria for Manic Episode per DSM-5

C. The mood disturbance is sufficiently severe to cause marked impairment in occupational functioning or in usual social activities or relationships with others, or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features.

D. The episode is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication, or other treatment).
Symptoms DMDD

The symptoms of Disruptive Mood Dysregulation Disorder (DMDD) include:

• Severe temper outbursts at least three times a week
• Sad, irritable or angry mood almost every day
• Reaction is bigger than expected
Symptoms DMDD (2)

- Child must be at least six years old
- Symptoms begin before age ten
- Symptoms are present for at least a year
- Child has trouble functioning in more than one place (e.g., home, school and/or with friends)
Concerns about Irritability and Temper Outbursts in Very Young Children (Ages 2-4)

• Ability to regulate oneself in terms of emotions and frustration tolerance is a developmental task -> some degree of fluctuating irritability and expression of temper outbursts are probably in keeping with normal development

• Mood disorders are rarely seen in this age group and likely would require specialized evaluation and treatment planning

• Rarely if ever should medications be considered in this age group, especially as first-line interventions

• There is support for use of psychosocial interventions (parent training programs like Positive Parenting Program: “Triple P”) for improving frustration tolerance and oppositional behaviors in young children
Potential Predictors of Persistent Irritability and Temper Outbursts in Very Young Children

**Constitutional factors**

- Genetic diatheses toward mental illness
- Irritable temperament
- Attachment issues
- Developmental delays
  - Language delays: inability to negotiate conflict, access environmental resources and engage in self-regulation effectively
  - Neurodevelopmental delays in development of self-regulation: i.e., ADHD
Potential Predictors of Persistent Irritability and Temper Outbursts in Very Young Children (2)

Environmental factors

- Neglect / abuse
- Modeling of parents, siblings, peers
- Unintentional reinforcement of negative behavioral patterns
## Comparison of Pediatric Mania, DMDD and ODD

<table>
<thead>
<tr>
<th></th>
<th>Ped Mania</th>
<th>DMDD</th>
<th>ODD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temper Outbursts</td>
<td>Often</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Episodic</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Inter-episode nml mood</td>
<td>+ / -</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Present across settings</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<td>Chronic Neg Mood</td>
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<td>Yes</td>
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<td>Hyperarousal</td>
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<td>Onset before age 10</td>
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<tr>
<td>Mood Disorder</td>
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<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Behavior Disorder</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Disorder of Affective Expression</td>
<td>Yes</td>
<td>Yes</td>
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</table>
Irritability / Temper Outbursts in Developmentally Delayed Children

• Irritability and behavioral outbursts can be manifestations of emotional distress, anxiety, physical distress or somatic discomfort in children with limited verbal / language capacities

• Acute short-lived presentations of irritability and / or temper outbursts should be evaluated medically for any recent changes in medical status

• Acute short-lived presentations of irritability and / or temper outbursts should be evaluated psychosocially in youth for any recent important psychosocial changes or stress

• Persistent problems with irritability and /or behavioral outbursts likely require further psychological / psychiatric evaluation and potentially formal mental health intervention
Pharmacotherapy for Irritability / Temper Outbursts in Youth: General Approach

• Determining appropriateness of medication treatment requires a good diagnostic assessment

• Best starting place is to utilize evidence-supported approaches to treating the underlying psychiatric diagnosis

• The decision to use medication is generally a potential benefit vs. potential risk decision taking into account the seriousness of the symptoms and the potential side effects of the medication

• A wide variety of medication classes are used, depending on the diagnosis
## Treatment Implications: Irritability or Temper Outbursts

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Medication</th>
<th>FDA Status</th>
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</thead>
<tbody>
<tr>
<td>Autism</td>
<td>Atypical Antipsychotics (Ia)</td>
<td>Risperidone and aripiprazole FDA-approved (ages 6-17)</td>
</tr>
<tr>
<td>Depression</td>
<td>SSRI Antidepressants (Ia)</td>
<td>Fluoxetine (age 8-17), escitalopram (age 12-17) FDA-approved</td>
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<tr>
<td>Mania / Bipolar</td>
<td>Atypical antipsychotics (Ia), Mood Stabilizers (Ia)</td>
<td>Acute Mania: risperidone, aripiprazole, olanzapine, quetiapine are FDA-approved for ages 10-17 only</td>
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<tr>
<td>GAD</td>
<td>SSRI’s, SNRI’s (Ia)</td>
<td>Duloxetine FDA-approved</td>
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<tr>
<td>ODD</td>
<td>? Stimulants (Ib) Alpha-agonists (Ib)</td>
<td>none</td>
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<td>Inter Expl Dx</td>
<td>Valproic acid (Ib)</td>
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<tr>
<td>DMDD</td>
<td>No established treatments</td>
<td>none</td>
</tr>
<tr>
<td>CD</td>
<td>No established treatments</td>
<td>none</td>
</tr>
<tr>
<td>RAD</td>
<td>No established treatments</td>
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</tr>
<tr>
<td>PTSD</td>
<td>No established treatments</td>
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**Evidence Level**

- **Ia** - Evidence from Meta-analysis of Randomized Controlled Trials
- **Ib** - Evidence from at least one Randomized Controlled Trials
- **IIa** - Evidence from at least one well designed controlled trial which is not randomized
- **IIb** - Evidence from at least one well designed experimental trial
- **III** - Evidence from case, correlation, and comparative studies.
- **IV** - Evidence from a panel of experts
Psychotherapy for Irritability / Temper Outbursts in Youth: General Approach

• Best outcomes for most children and adolescents result from combining effective pharmacotherapy and effective psychotherapy

• Psychotherapy targeting enhanced verbal expression of irritability or anger as opposed to behavioral expression of irritability or anger can be effective

• Helping families model and positively reinforce verbal resolutions of conflicts vs. behavioral acting out can be helpful

• Evidence-based psychotherapies, if available in the community, can be helpful in alleviating the symptoms of underlying psychiatric diagnoses (i.e., CBT for anxiety)
## Treatment Implications: Irritability or Temper Outbursts

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Psychosocial</th>
<th>Evidence Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autism</td>
<td>Applied Behavior Analysis</td>
<td>Ia</td>
</tr>
<tr>
<td>Depression</td>
<td>Evidence-based psychotherapy like CBT (Ia)</td>
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<tr>
<td>Mania</td>
<td>Rainbow protocol (IIa)</td>
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<tr>
<td>DMDD</td>
<td>No established treatments</td>
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<tr>
<td>Inter Expl Dx</td>
<td>Collaborative Problem Solving (IIb)</td>
<td></td>
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<tr>
<td>ODD</td>
<td>? Parent training models (Ia)</td>
<td></td>
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<tr>
<td>CD</td>
<td>Multi-Systemic Therapy (Ia or Ib)</td>
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<tr>
<td>RAD</td>
<td>Family-based psychotherapy</td>
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<tr>
<td>PTSD</td>
<td>Trauma-focused CBT (Ia or Ib)</td>
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</tr>
<tr>
<td>GAD</td>
<td>Cognitive Behavior Therapy (Ia)</td>
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MCPAP Resources for Primary Care Clinicians

• MCPAP Website for information, screening tools, previous webinars: https://www.mcpap.com

• MCPAP phone consultations for discussion of complex cases

• MCPAP diagnostic consultations for help with complex diagnostic evaluations

• MCPAP psychopharmacology consultations for help with medication management decisions
Questions and Comments