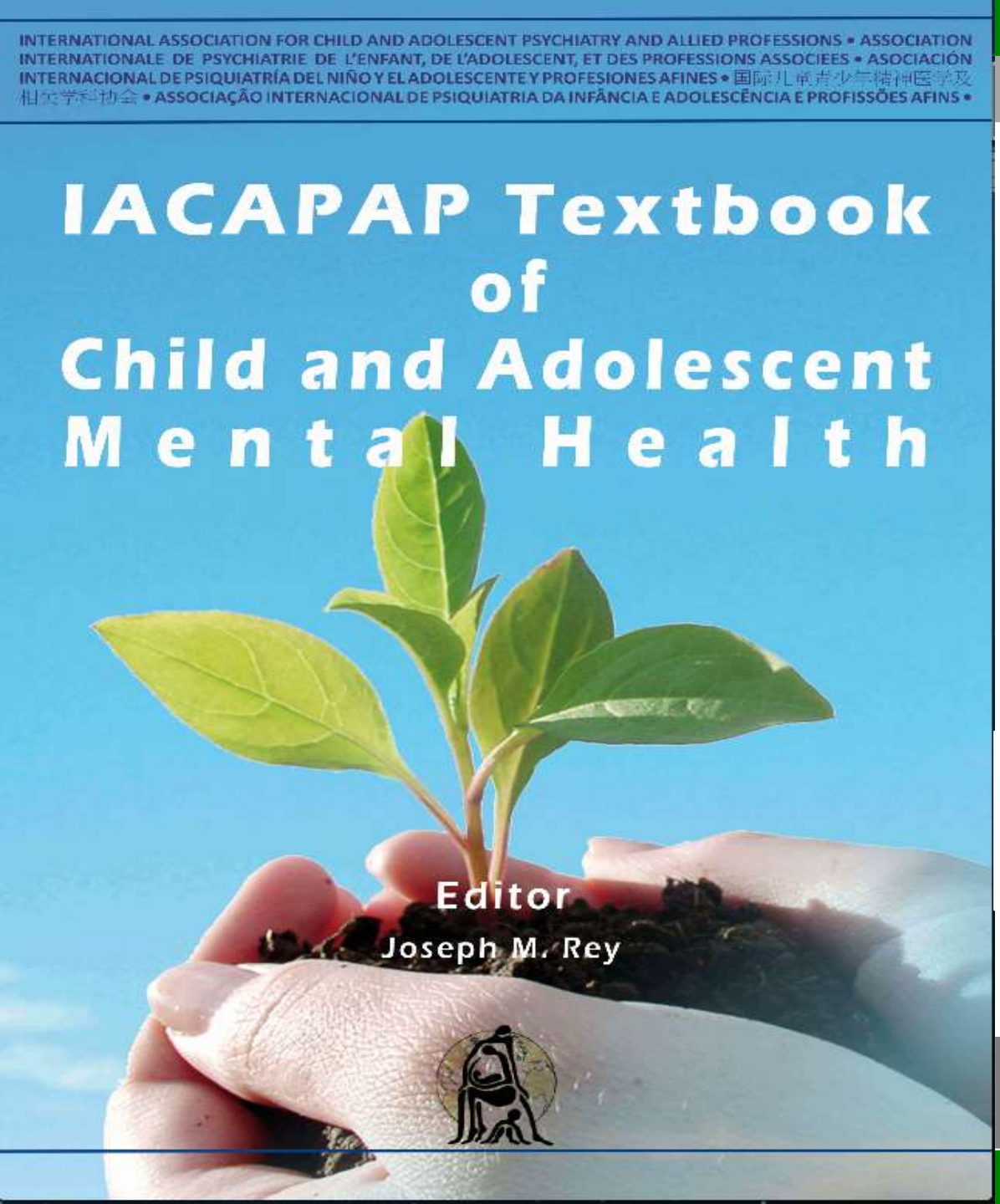

MOOD DISORDERS

Chapter E3

DISRUPTIVE MOOD DYSREGULATION DISORDER

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Companion Powerpoint Presentation

Adapted by Julie Chilton

The “IACAPAP Textbook of Child and Adolescent Mental Health” is available at the IACAPAP website http://iacapap.org/iacapap-textbook-of-child-and-adolescent-mental-health

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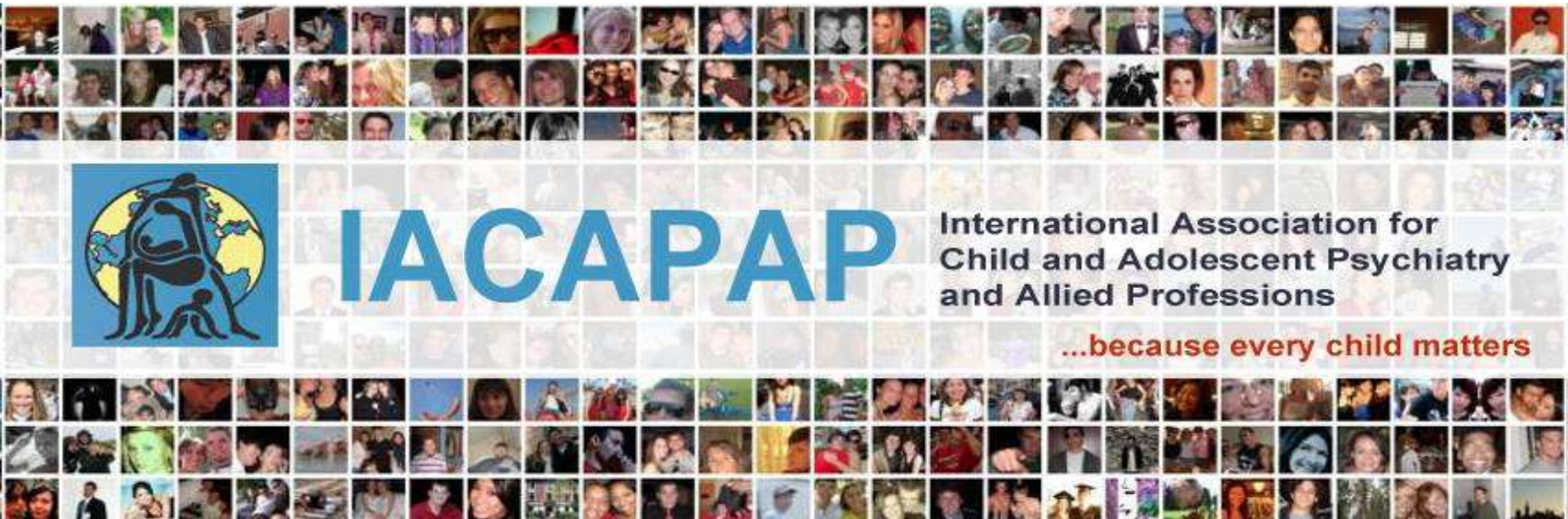


Disruptive Mood Dysregulation Disorder

Outline

- Clinical Presentation & Diagnosis
- Epidemiology
- Course and Outcome
- Assessment & Differential Diagnosis
- Etiology & Risk Factors
- Treatment

Disruptive Mood Dysregulation Disorder

Introduction

- “DMDD”
- Temper outbursts with chronic irritability
- New, controversial diagnosis in DSM-5
- Introduced to address pediatric bipolar disorder controversy
- Other interpretations:
  - Severe Mood Dysregulation (SMD), Leibenluft, 2003, minus hyperarousal
  - Child Behavior Checklist Dysregulation Profile
- DMDD vs ADHD vs Oppositional Defiant DIsorder vs Bipolar Disorder
  - Distinct etiology
  - Different neurobiology
  - Divergent developmental outcomes
  - All 4 have irritability and temper outbursts
- Debate about clinical validity and usefulness

Table E.3.1 DSM-5 diagnostic criteria for disruptive mood dysregulation disorder

Severe recurrent temper outbursts in response to common stressors, which are: • On average, three or more times per week • Temper outbursts are inconsistent with developmental level • Between outbursts, mood is persistently irritable or angry, most of the day and nearly every day.
Onset of symptoms must be before the age of 10
Symptoms must have been present for 12 or more months
Symptoms must not be absent for three or more consecutive months
Children must be between 6 and 18 years of age
Symptoms should be present in at least two of three settings (home, school, social situations) and are severe in at least one setting
Symptoms are not better explained by another medical disorder, are not the manifestation of substance abuse or medical condition, criteria for manic/hypomanic episode have not been met for more than one day and behaviors do not occur solely during an episode of major depressive disorder

Disruptive Mood Dysregulation Disorder
Severe Mood Dysregulation

- "SMD" described by Ellen Leibenluft et al in 2003
- Chronic (non-episodic) and severe irritability and hyperarousal without euphoria and grandiosity of bipolar disorder
- More studies on SMD than DMDD
- Upper age limit of onset for diagnosis of SMD is 12 vs 10 in DMDD
- SMD diagnosis requires symptoms of hyperarousal , DMDD does not
- **Increased risk for later depressive and anxiety disorders in adulthood but not bipolar disorder**

Disruptive Mood Dysregulation Disorder

Child Behavior Checklist Dysregulation Profile

- Captures broad overlap between SMD and DMDD behaviors
- Severe behavioral and affective dysregulation:
  - Irritability, aggression
  - Mood instability and “affective storms”
  - Hyperarousal
- Extreme scores on CBCL syndrome scales:
  - “anxious/depressed”
  - “attention problems”
  - “aggressive behavior”
- Epidemiology:
  - 1-2% in epidemiological samples from multiple studies
  - 6-7% in child psychiatric clinical samples (Holtman et al, 2008)
  - 13-20% in children with ADHD (Holtman et al, 2008)
- Increased risk for later substance use, conduct and mood disorders, suicidal ideation and attempts, **but not for bipolar disorder**

Disruptive Mood Dysregulation Disorder

Epidemiology

- 97% of SMD youths met criteria for DMDD, remainder failed to meet criteria only due to age of onset

- 8% 3-month DMDD prevalence in 6-year-old American children (Dougherty et al, 2014)

- Only 1% preschool and school age cohorts qualified when duration and frequency criterion applied (Copeland et al, 2013)

Disruptive Mood Dysregulation Disorder

Course and Outcome

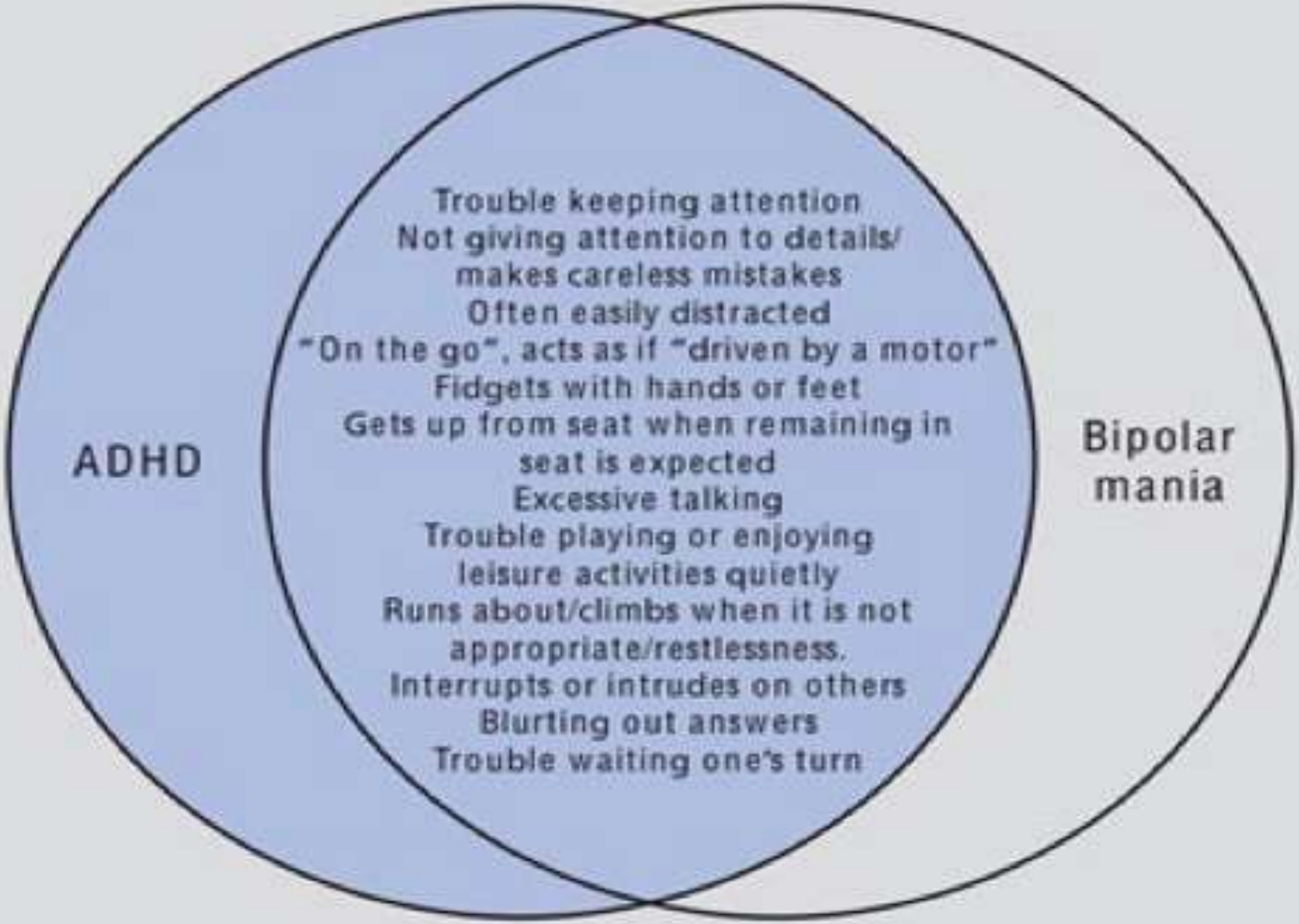
- 80% children with DMDD at age 9 also met criteria at age 6
- Childhood DMDD diagnosis has increased risk of:
  - Depressive disorders and ADHD
  - Disruptive behavior disorder symptoms
  - Peer relationship problems
  - Peer exclusion and victimization
  - Relational aggression
- Adolescent DMDD diagnosis has increased risk of:
  - Serious illness
  - Sexually transmitted diseases
  - Other non-substance related psychiatric disorders
  - Nicotine use
  - Police contact
  - Poverty
  - Not achieving a high school diploma and no college attendance
- **Patients with DMDD or SMD do not show later increased risk for bipolar but do have an increased risk for depressive disorders**

Disruptive Mood Dysregulation Disorder

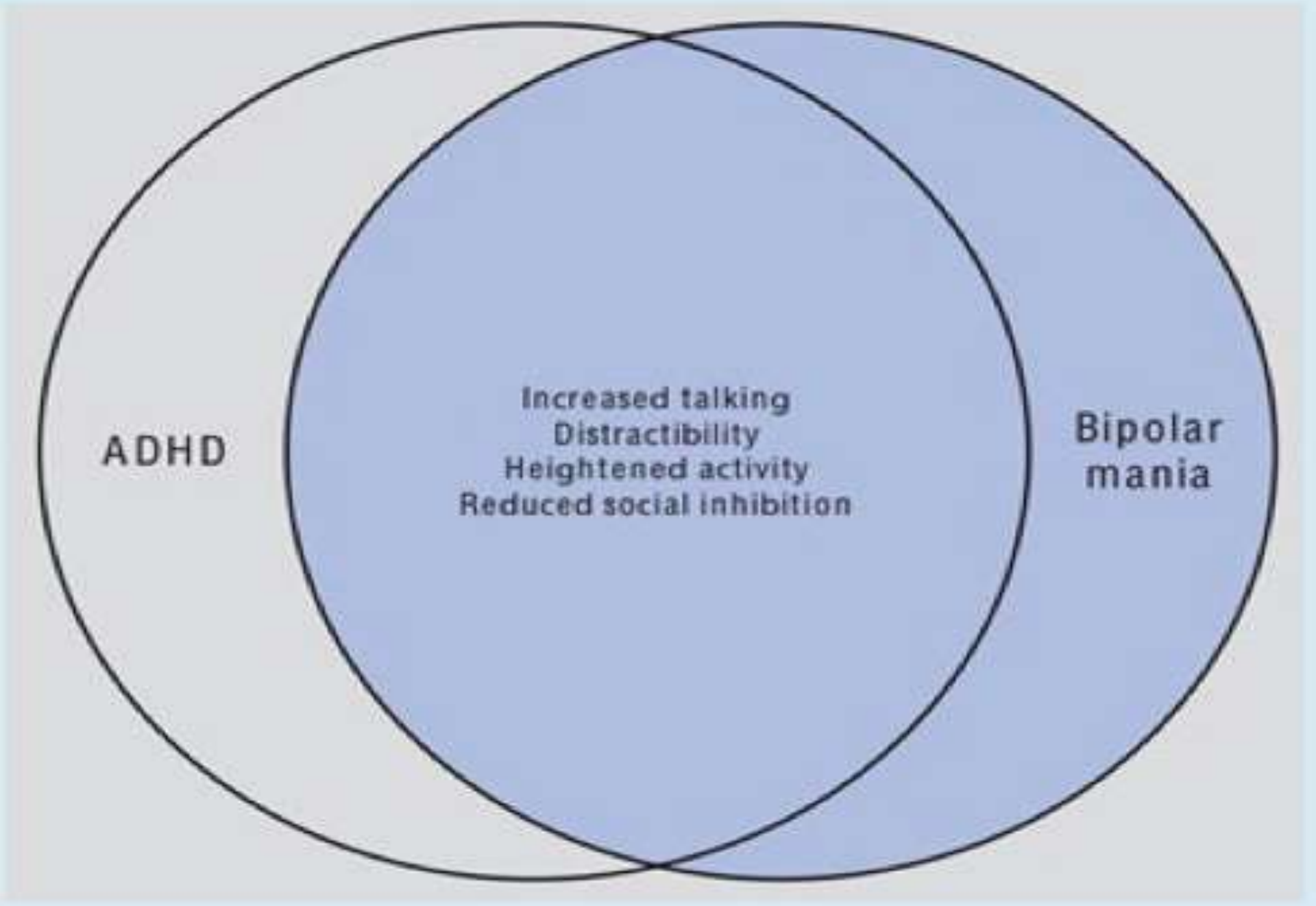
Assessment & Differential Diagnosis

- Irritability and temper outbursts common to DMDD, ADHD, oppositional defiant disorder, conduct disorder, bipolar
- Overdiagnosis of bipolar disorder between 1993-2003 in US
  - Doubled in adults
  - Increased 40 times in people under 20
- General consensus: bipolar diagnosis requires distinct manic or hypomanic episodes

DSM-IV symptoms of ADHD that can also be observed in a manic episode



DSM-IV symptoms of a manic episode that can also be observed in ADHD



Disruptive Mood Dysregulation Disorder

Etiology & Risk Factors

Developmental predictors of DMDD at age 6 (Dougherty et al, 2014):

- Parental lifetime substance use
- Temperamental "surgency"
    - High levels of activity
    - Reward seeking
    - Low shyness
    - Impulsivity

Chart review showing ¾ of DMDD patients had parents with mental health issues:

- Major depressive disorders
- ADHD
- Anxiety disorders

Disruptive Mood Dysregulation Disorder

Social-Affective and Cognitive Neuroscience

In SMD and bipolar disorder vs healthy controls:

- Less accuracy in labelling expressions
- Less sensitivity in facial emotion recognition
- Biased processing of threatening faces
  (Hommer et al 2014)

Differential neural activation on FMRI of patients with SMD shown fearful faces:

- Posterior cingulate cortex
- Posterior insula
- Inferior parietal lobe
  (Thomas et al, 2013)

Disruptive Mood Dysregulation Disorder

Treatment

- Few trials to inform clinical practice
- Most recommendations from studies with SMD, ODD and depression
- Younger children with emotion dysregulation more sensitive to changed parenting than children without
- Possible off-label psychopharmacological options: stimulants (methylphenidate), antidepressants, antipsychotics (risperdal), mood stabilizers (divalproex)
- Psychoeducation
- Collaboration with teachers
- Strategies for dealing with crises
- Identification of potential stressors and triggers
- Parenting programs
- Family therapy

  *rule out abuse and neglect

Disruptive Mood Dysregulation Disorder

Conclusion: Key Messages

- Useful diagnosis for children with severe, non-episodic irritability
- Irritability likely related to the depression dimension
- Different from bipolar disorder in longitudinal course, family history, and neuropsychological performance
- Diagnose pediatric bipolar disorder only when discrete episodes of mania
- Limited evidence to guide treatment

Disruptive Mood Dysregulation Disorder

Thank You!