Maryland Behavioral Health Integration in Pediatric Primary Care (MD BHIPP)

Resilience Break: Disruptive Behavior and DMDD

November 2nd, 2021

Robert T. Paine, DO
Assistant Professor of Psychiatry
University of Maryland School of Medicine

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

1-855-MD-BHIPP (632-4477)

www.mdbhipp.org

Follow us on Facebook, LinkedIn, and Twitter! @MDBHIPP

Disclosures

- Dr. Paine has no financial relationships with ineligible companies (either individually or as a group)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Learning Objectives

At the conclusion of this continuing medical education activity, the participant will be able to:

1. Understand the behavioral perspective of psychiatric illness and pathological behaviors.
2. Apply the theoretical perspectives discussed to develop a differential diagnosis for disruptive behavior disorders and DMDD.
3. Understand the evidence-based treatments for disruptive behavior disorders and DMDD.

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Outline-Part 1

- The Behavior Perspective
  - Driven/Motivated Behaviors
  - Socially Learned Behaviors
- Disruptive Behavior Case Formulation
  - Overview
  - Assessment and Diagnosis
  - Treatment Planning

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Outline-Part 2

- Treatments
  - Therapy
  - Medication
- Questions/Comments

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

The Behavior Perspective

- The term *behavior* applies to any motor-sensory activity linked to a goal.
- *Learning* plays a role in *all behaviors.*
- Behaviors can be classified as *driven* or *socially learned.*

- McHugh & Slavney, *The Perspectives of Psychiatry,* 1998

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

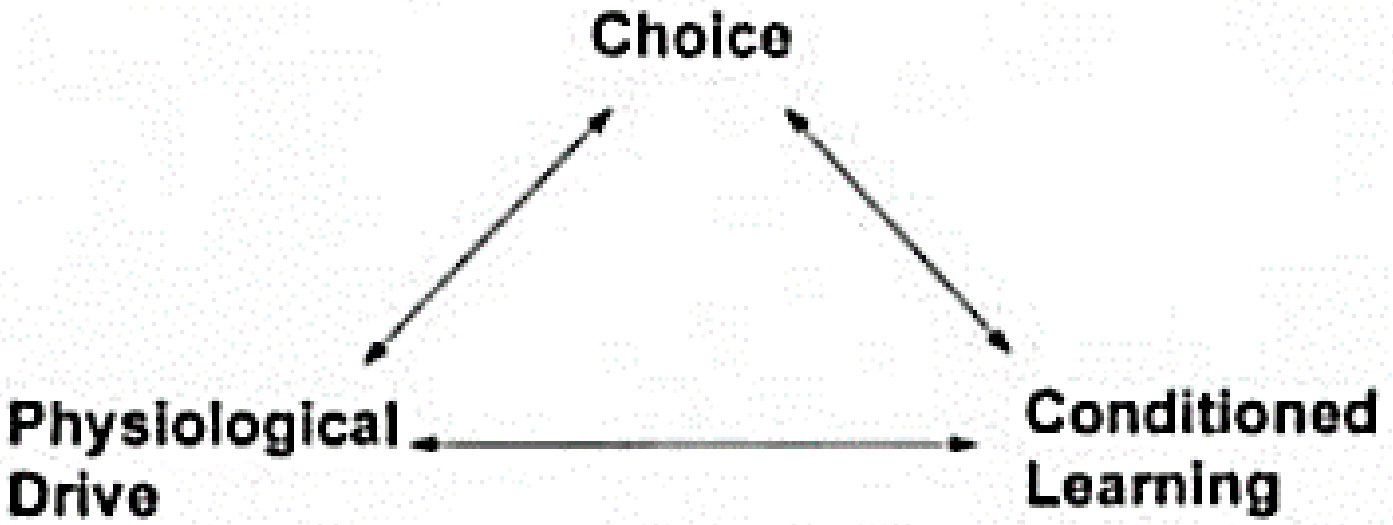
Driven Behaviors

- Driven and satiated by physiological mechanisms.
- Goals of driven behaviors are *vital organismic needs*.
  - Sex
  - Drinking/Eating
  - Sleeping
  - Maternity

McHugh & Slavney, *The Perspectives of Psychiatry,* 1998

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

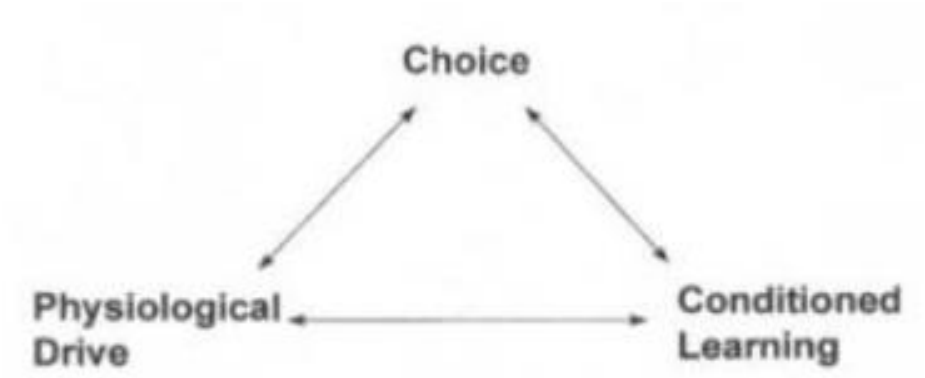
Triad of Driven Behaviors



McHugh & Slavney, *The Perspectives of Psychiatry,* 1998

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Treatment Targets



- Choice: “Abstinence for today”
- Physiological drive:
  - Methadone
  - Suboxone
  - Antiandrogen
- Conditioned learning
  - Antabuse (punishment)
  - Contingency management

McHugh & Slavney, *The Perspectives of Psychiatry,* 1998

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

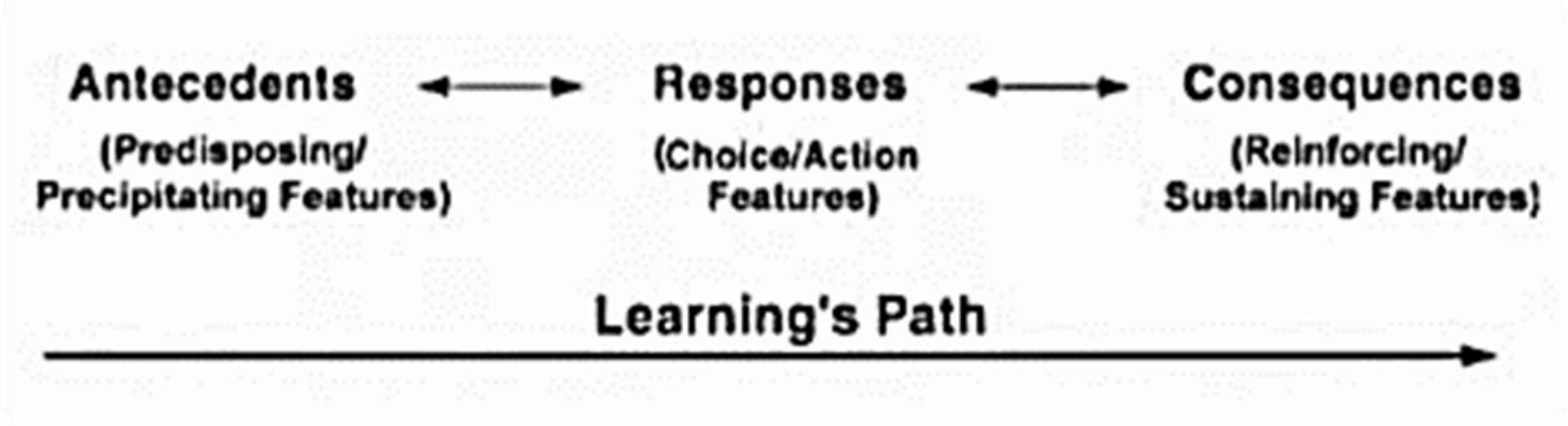
Goal-Directed Behaviors

- Primarily shaped through *social learning* via interaction of *antecedents, responses, and consequences*.
- Personal choice becomes enmeshed with social influences.

McHugh & Slavney, *The Perspectives of Psychiatry,* 1998

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Triad of Goal-Directed Behaviors



McHugh & Slavney, *The Perspectives of Psychiatry,* 1998

BHIPP
Maryland Behavioral
Health Integration in
Pediatric Primary Care

Goal-Directed Behavioral Disorders

- Disordered aspects of behavior may be defined by maladaptive goals, means, consequences, or provocations.
  - Disruptive behavior disorders
  - School refusal behavior

McHugh & Slavney, *The Perspectives of Psychiatry,* 1998

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Behavioral Assessment

1) What is going on?
2) Why?

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Functional Behavioral Analysis (What Is Going On?)

- Caregiver report and observation in naturalistic settings (school and home) to determine:
  - Antecedent/trigger of problem behavior
  - Environmental response/consequence maintaining the behavior
- Patterns of antecedent/consequence help to identify the problem behavior's function

Bearss, K et al (2018)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Collaborative Problem-Solving (Why?)

Challenging behavior occurs when the demands being placed upon a child outstrip the skills he has to respond adaptively to those demands.

- Doing well is preferable and kids do well if they can.
- Conditions that precipitate challenging episodes are highly predictable.
- The **family, not the child**, is the "identified patient."

Greene, R & Ablon, J (2006)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Behavioral Therapy Components

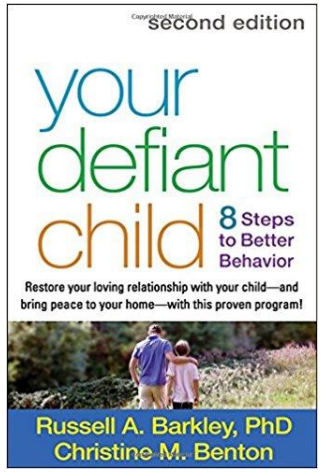
- Assessment
- Psychoeducation
- Prevention Strategies
- Consequences
- Generalization and Maintenance

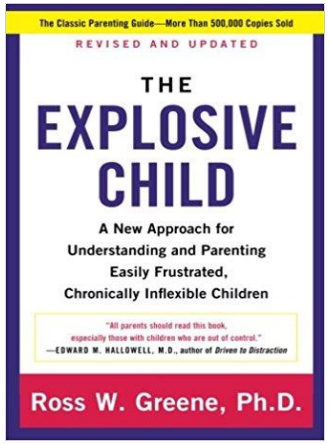
Bearss, K et al (2018)

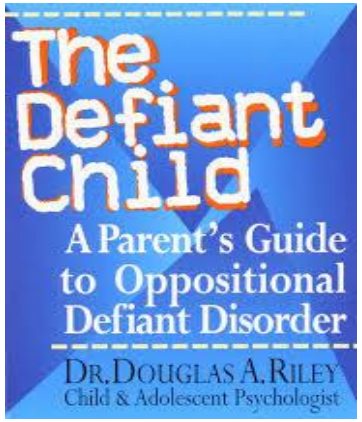
BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Books

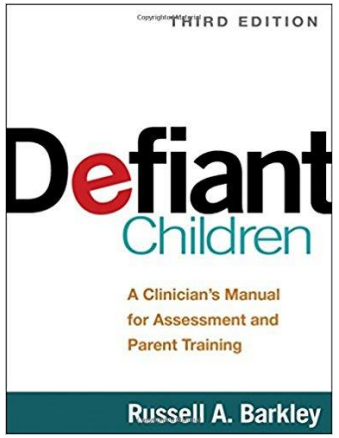
Parents

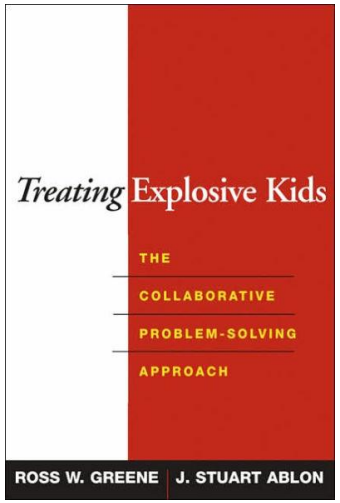






Clinicians





BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Disruptive, Impulse-Control, and Conduct Disorders

- Psychiatric conditions involving problems in emotional and behavioral regulation.
- Disorders are differentiated by predominant impairment in emotional and behavioral dysregulation.

DSM-5 (2013)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Dysregulated Spectrum

Conduct Disorder	Oppositional Defiant Disorder	Intermittent Explosive Disorder
• Behavioral dysregulation • Prevalence estimate: 4%	• Behavioral and emotional dysregulation • Prevalence estimate: 3.3%	• Emotional dysregulation • Prevalence estimate: 2.7%

DSM-5 (2013)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Case

- Max is a 14 yr old male seen in the emergency department accompanied by his parents after becoming very aggressive with them.
- He punched a wall and vandalized his room after his parents grounded him because of his previous defiant behavior.
- He had been suspended from school that day for disrespecting his teacher after he was caught fighting another student.

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

- His parents describe Max as a strong-willed, stubborn child. He has difficulty with rules and refuses to follow them. He is grouchy and irritable around adults, including the ED staff.
- Max enjoys being with his friends and playing video games. He had been diagnosed with ADHD when he was in kindergarten, when his teacher noticed he had a poor attention span and could not sit still.

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

- According to his parents, Max has “blown up” a few times before, smashing items in his room and shouting obscenities.
- Parents noticed that he is more defiant in concurrence with discontinuing his ADHD stimulant medication.

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Disruptive Mood Dysregulation Disorder

- A childhood condition of chronic, extreme irritability, anger, and frequent, intense temper outbursts.
- Categorized as a depressive disorder in DSM5 reflecting longitudinal finding that children with chronic irritability typically develop unipolar depressive disorders rather than bipolar disorders in adulthood.

Elmaadawi, A (2018); DSM-5 (2013)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

DMDD Criteria = OI VEY

- **O**utbursts - frequent, impairing, in more than one place (i.e. not just conflict with a parent or teacher)
- **I**rritable mood when not having outbursts
- **V**ery chronic – has lasted at least a year
- **E**xplained by another [better understood] condition (e.g., mania (at least a day), MDD, PTSD, anxiety, autism?) NOT DMDD
- **Y**oung – starts in childhood (after age 6, before age 10)

Carlson, G (2017)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Study Sample Size (irritable + explosive)	Inpatient DMDD 32	LAMS DMDD 184	SUSB DMDD 236	New York University Tantrums 51	No DMDD
Manic Symptoms: CMRS>=20	69.6	28	33.3		8.9
Bipolar I Manic	3.1	9	9.7	0	6.4
ADHD	**81.2**	**79**	**81.9**	**74.5**	**76.0**
Anxiety	41.9	31.5	31.2	49	36.8
Depression	41.9	20	17.4	29.4	18.4
ODD	**100**	**70**	**82.7**	**88.2**	**14.8**
ADHD + ODD	**78.1**	**77**	**86.1**	**n/a**	18.1
ASD	28.1	3	31.8	n/a	15.7

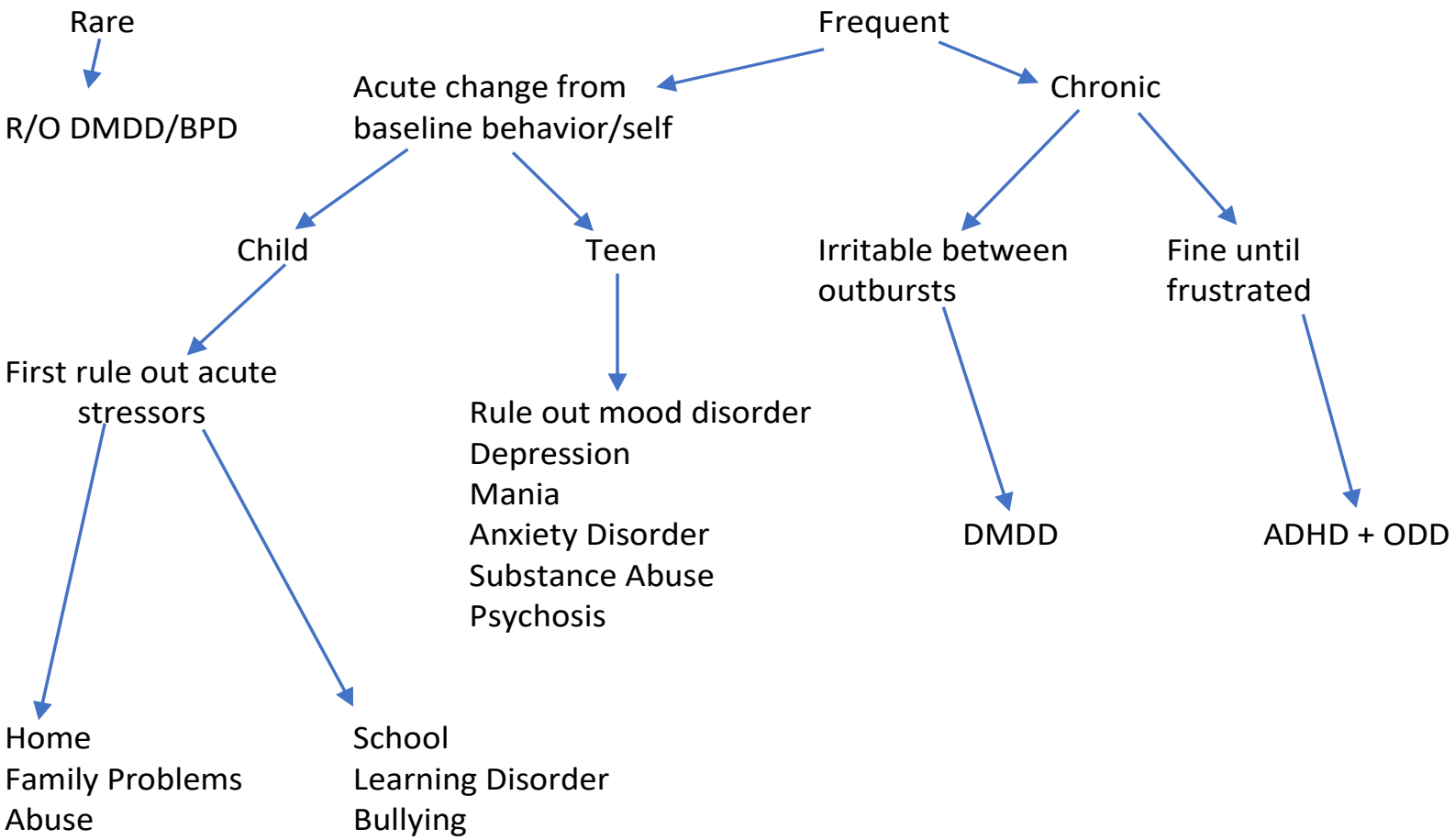
Carlson, G (2017)

What is Max's Diagnosis?

A. ODD
B. DMDD
C. Bipolar Disorder
D. ADHD
E. A and D

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

DDX of Explosive Outbursts



Carlson, G (2017)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Treatment Planning

- Overall goal is to reduce the frequency, intensity, and duration of explosive episodes.
- Behavioral therapy should always be considered a first-line intervention and should be implemented across all settings.
- Medication treatment should target common comorbid disorders:
  - ADHD
  - Depression
  - Anxiety

Elmaadawi, A (2018)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Systematic approach to “mood dysregulation”

1) Comprehensive psychiatric assessment
   - While ADHD/ODD are common; anxiety, depression, and autism are other common primary disorders; it is why they are “rule outs” for DMDD
   - Keep careful records of frequency, intensity, number, and duration of outbursts

2) Maximize the treatment of the base condition
   - Most data: it is ADHD-C
   - If symptoms remain, add another medication
     - SSRI/SNRI
     - “Mixed receptor antagonists”
     - Mood Stabilizers
     - Pay attention to weight gain immediately (metformin has good data)

3) The condition appears quite chronic; short-term solutions are inadequate

Carlson, G (2017)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Pharmacotherapy Measurement of Target Symptoms

1) How the child feels
   - CESDC/PHQ-9 teens for depression/irritability
   - SCARED/GAD-7 (>12) for anxiety
2) What the child does
   - Modified Overt Aggression Scale
   - Parent and Teacher Vanderbilt

Carlson, G (2017)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Pharmacotherapy

- No medications are FDA approved for DMDD.
- ADHD Medications
  - Stimulants
  - Alpha-2 agonists
  - Atomoxetine
- Antipsychotics
- Mood Stabilizers
  - Divalproex
  - Lithium
- Antidepressants

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Stimulants

- Emotional dysregulation commonly occurs in youth with ADHD.
- Optimization of CNS stimulant therapy of ADHD is well tolerated and effective for externalizing symptoms, irritability, and parent-rated impairment.
- CNS stimulants should be considered as first-line pharmacotherapy for DMDD, particularly for patients with comorbid ADHD.

Elmaadawi, A (2018); Baweja et al (2016)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Alpha-2 Agonists Guanfacine ER and Clonidine XR

- ADHD Monotherapy
  - Effect size less robust than stimulants, but may be offered if patient/family objects to stimulant treatment.
  - Guanfacine ER: Target 0.1 mg/kg/day
    - Ages 6-12: Max 4 mg/day
    - Ages 13-17: Max 7 mg/day
- Stimulant partial responders
  - 25-30% of ADHD patients fail to respond to stimulant monotherapy.
  - Useful in afternoon for rebound impulsivity/hyperactivity/emotional dysregulation after stimulant wears off.

Wilens, T (2016)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Atomoxetine

- Typically, a second-line agent for patients who cannot tolerate or fail to respond to stimulant therapy.
- A RCT showed significant improvement in ADHD *and* ODD symptom domains compared to placebo after 9 weeks of treatment.
- Initiate at 0.5 mg/kg/day, increase to 1.2 mg/kg/day after 3 days.
- BID dosing may mitigate tolerability concerns at higher doses.

Greenhill, L (2015); Dittmann et al (2011)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Antipsychotics (Mixed Receptor Antagonists)

- If the youth fails to make treatment gains with the agent best suited for his/her primary disorder, the physician should consider adding an atypical antipsychotic to the primary treatment.

Pappadopulos et al (2011)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

TOSCA Trial

- Evaluated the superiority of 6 weeks of PT plus stimulant plus risperidone (i.e., augmented treatment) over PT plus stimulant plus placebo (i.e., basic treatment) in children 6 to 12 years old with ADHD and severe aggression.
  - The acute 9-week trial consisted of 3 weeks of PT and stimulant treatment for everyone followed by 6 weeks of randomized double blinded augmented or basic treatment.
  - The second study drug (risperidone or placebo) was added only for children who did not respond sufficiently to PT and stimulant alone.
- Result: medium advantage of augmented over basic treatment on the primary outcome measure of disruptive behavior

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Divalproex

- A RCT found that when treated with stimulant and divalproex adjunctive treatment, 30 youths with ADHD and chronic aggression refractory to stimulant monotherapy demonstrated higher rates of remission of aggressive behavior.

Zaraa, S et al (2017); Blader et al (2009)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Lithium

- Earlier studies found that lithium significantly improves aggressive behavior in hospitalized pediatric patients with conduct disorder.
- A later study comparing lithium vs placebo for treatment of severe mood dysregulation found no significant differences between groups.

Campbell et al (1995); Blader et al (2009); Dickstein et al (2009)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Antidepressants

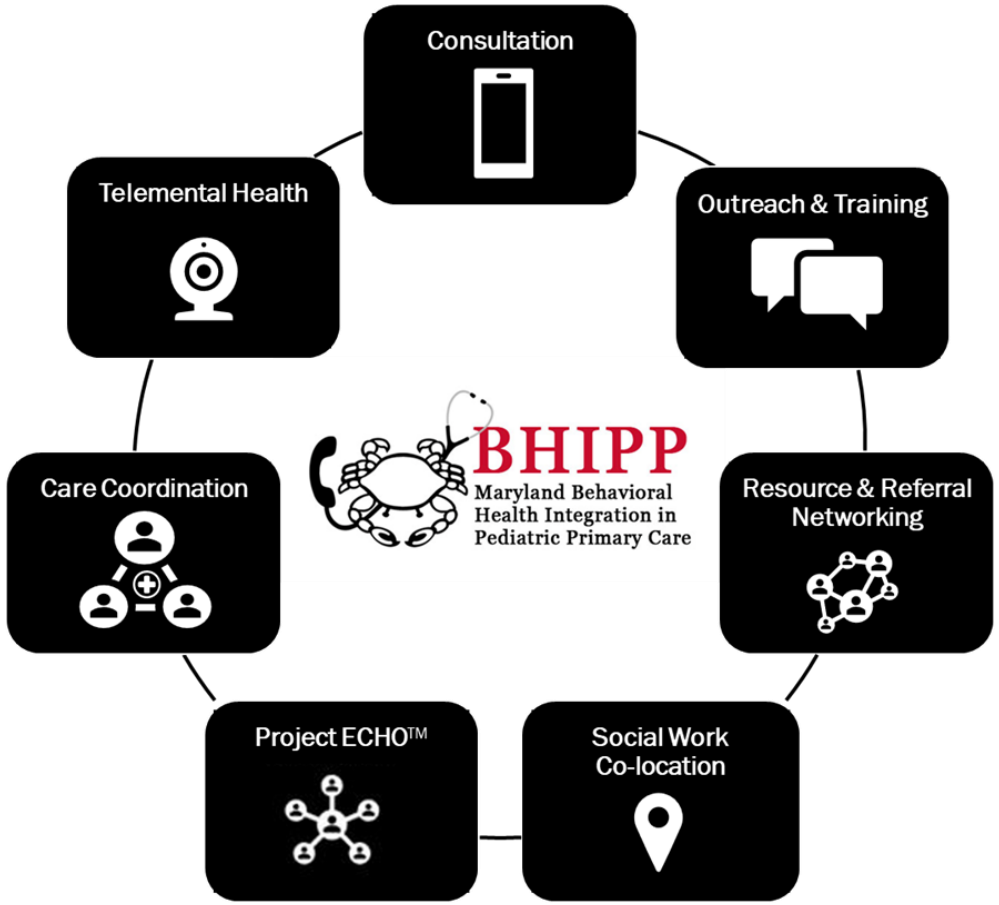
- Youth who present with severe irritability/aggression should be screened for depression and anxiety disorders.
- If criteria for a depression/anxiety disorder are met, the clinician may consider a trial of SSRI medication indicated for that disorder.

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Maryland Behavioral Health Integration in Pediatric Primary Care (BHIPP)

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Who We Are – Maryland BHIPP



Offering support to pediatric primary care providers through free:

- Telephone consultation (855-MD-BHIPP)
- Resource & referral support
- Training & education
- Regionally specific social work co-location (Salisbury University and Morgan State University)
- Project ECHO®
- Direct Telespsychiatry & Telecounseling Services
- Care coordination

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care

Thank you!

Maryland Behavioral Health Integration in Pediatric Primary Care (BHIPP)

1-855-MD-BHIPP (632-4477)
www.mdbhipp.org
Follow us on Facebook, LinkedIn, and Twitter! @MDBHIPP

For resources related to the COVID-19 pandemic, please visit us at [BHIPP Covid-19 Resources](#).

BHIPP
Maryland Behavioral Health Integration in Pediatric Primary Care