The Rage!

Disruptive Behavior Disorders

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Disclosures

I have no relationships with commercial interests to disclose.

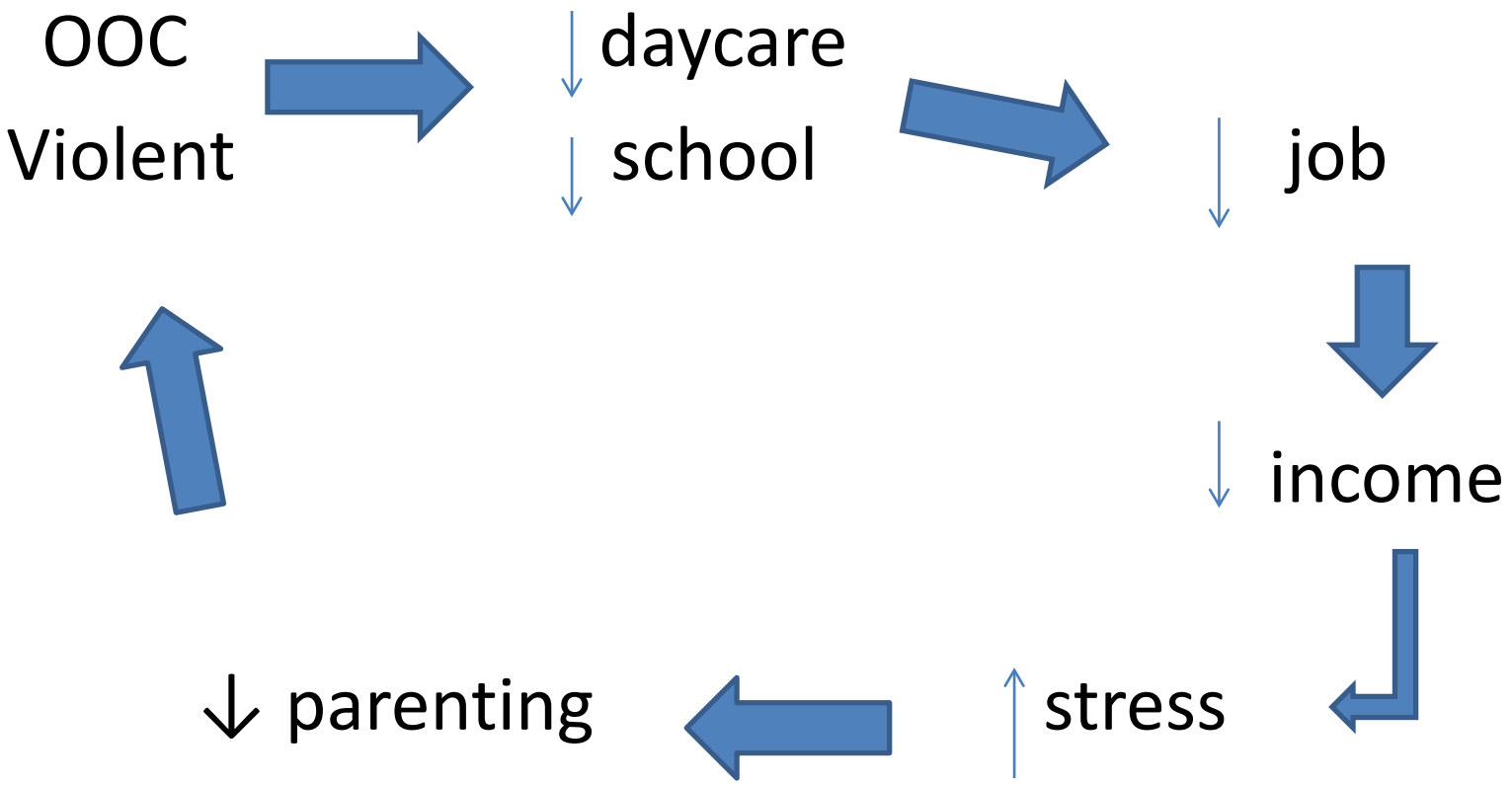
Ugly and Awful
“like a bull in a china shop”

- Flip tables
- Launch chairs
- Evacuate classroom
- Call police
- Ambulance to ER
- Throw lunch trays
- Clear desks
- Harms others (noses, glasses)
- Destroys property (think room, computers)
- Refusals
- Teacher burnout
- Holes in walls/doors
- Smash windows
- Dent/scratch cars
- Cut up furniture
- Flip furniture
- Threat to stab/shoot/kill
- Vulgar language
- Rips curtains
- Empty drawers/frig
- Smash big-screen TVs
- Deviant (shuts alarms off)
- Risk child abuse
- Threatens to kill
- Cruelly kills pets

Costly to families and society

- Parents change/lose jobs
- Schools hire staff, transport, special education
- Prevention save $70,000/7yrs (Puzzo, 2016)
- Cumulative cost 10x's w/o DBD (Puzzo, 2016)
- Health care costs (ambulance/ER/psych hosp/PMIC)
- Law enforcement (clinic/schools/homes)
- Teacher/caregiver burnout
- Family stress/mental health
- Damages (physically/emotionally)

Vicious cycle



Disruptive Behavior Disorder (DBD)

- Persistent/severe pattern antisocial behaviors in preschoolers, children, and adolescents.
- Antisocial: violate other's rights/societal norms
- Most represented in referred mental health (50%)
- Incidence community sample = 5.7%
- Frequent aggression, defiance, deceitfulness
- Stage for later psychiatric, legal, educational problems
- Stable and can persist throughout lifespan
- Most represented in children's mental health ctrs

Co-morbid

- ADHD (executive functioning deficits)
  - emotional impulsivity
- Oppositional defiant disorder (ODD)
  - defy authority, argue, severe temper outbursts
- Conduct disorder (CD)
  - 1.5%-4% general population (Paixao, 2013)
  - Pervasive/persistent form DBD
  - Violates right of others/societal norms
  - Childhood/adolescent onset
  - More negative outcomes (criminality, mental/physical health, academic/occupational underachievement)
  - Child onset worse than adolescent onset

Conduct disorders

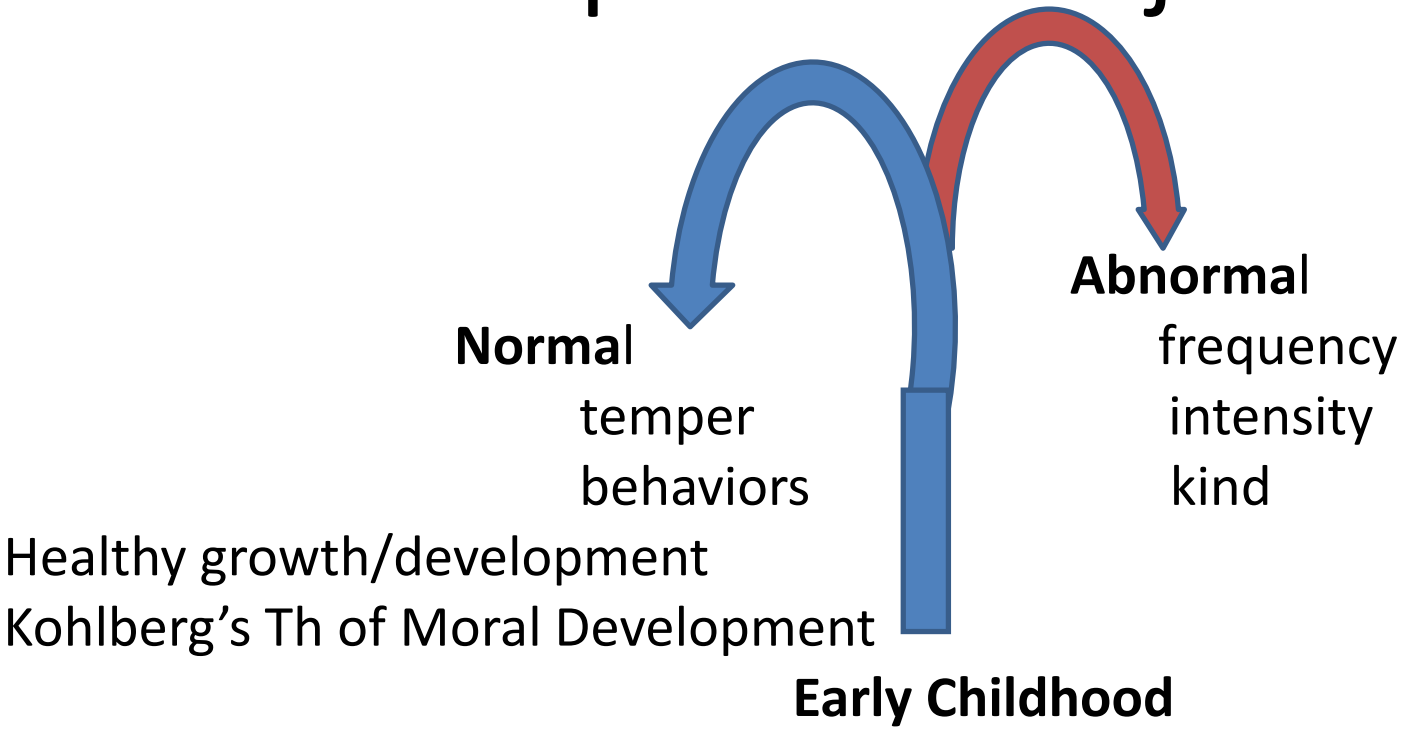
- **Reactionary**
- Impulsive reactive
- Mood/anxiety
- Hypervigilant to threat
- Emotionally overreactive/responsive
- Exaggerated affective response to perceived social threat
- Unprofitable, unplanned
- (Balia, 2018)

- **Callous-unemotional (CU)**
- ↓ empathy/guilt
- Shallow emotions
- Psychopathic dimension
- Predatory aggression
- Resistant to treatment
- Personal gain at expense of others and society
- CD CU = 50% referrals
- Planned
- Decreased cortisol, sympathetic response

CD CU

- Severe antisocial risk
- Serious persistent criminal behaviors
- Correlated with program failure
- Re-arrests in JCS
- Emotional arousal deficit
- Consequences ineffective
- Less cortisol
- Empathetic dysfunction

Developmental Trajectory



Etiology/development of DBD 2◦ complex interactions = neurobiological alterations.

Emotional regulation

- Ability to influence intensity, duration, and type emotion
- Ability to regulate emotions vital to mental health and achieve goals
- DBD = deficient in emotional processing
- Emotional disregulation = mood instability, severe irritability, aggression, temper outbursts, hyperarousal

Genetics x Environment

Innate
Genetic abnormalities
Genetic vulnerability

family psychopathology
poor disciplinary practices
maltreatment/neglect
poverty
deviant peers
teen parents
marital discord/separation
inter-parental conflict
prenatal toxins
(ie: tobacco, alcohol)
Sensory sensitivites

Environment (con't)

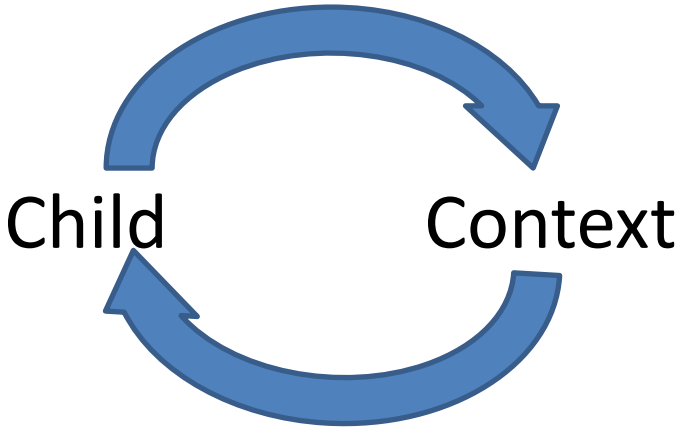
- Large family size
- Delinquent siblings
- Harsh/severe unpredictable parent discipline
- ↓ SES, income, class, occupation, housing
- Stress → ↓warmth/poor family management
- ↓ monitoring/supervision
- DB 2x's more prevalent in children from low income families (25%) vs non-economically disadvantaged (10%)

Electronics

- Addiction (dopamine)
- Displaces opportunities for social skill interactions/development
- Difficulty differentiating fiction/non-fiction world
- Disrupts normal sleep/wake cycle
- Opportunity for cyber bullying
- Use as escape (not cope)
- Moody, crazy, and lazy (Dunckley, 2015)

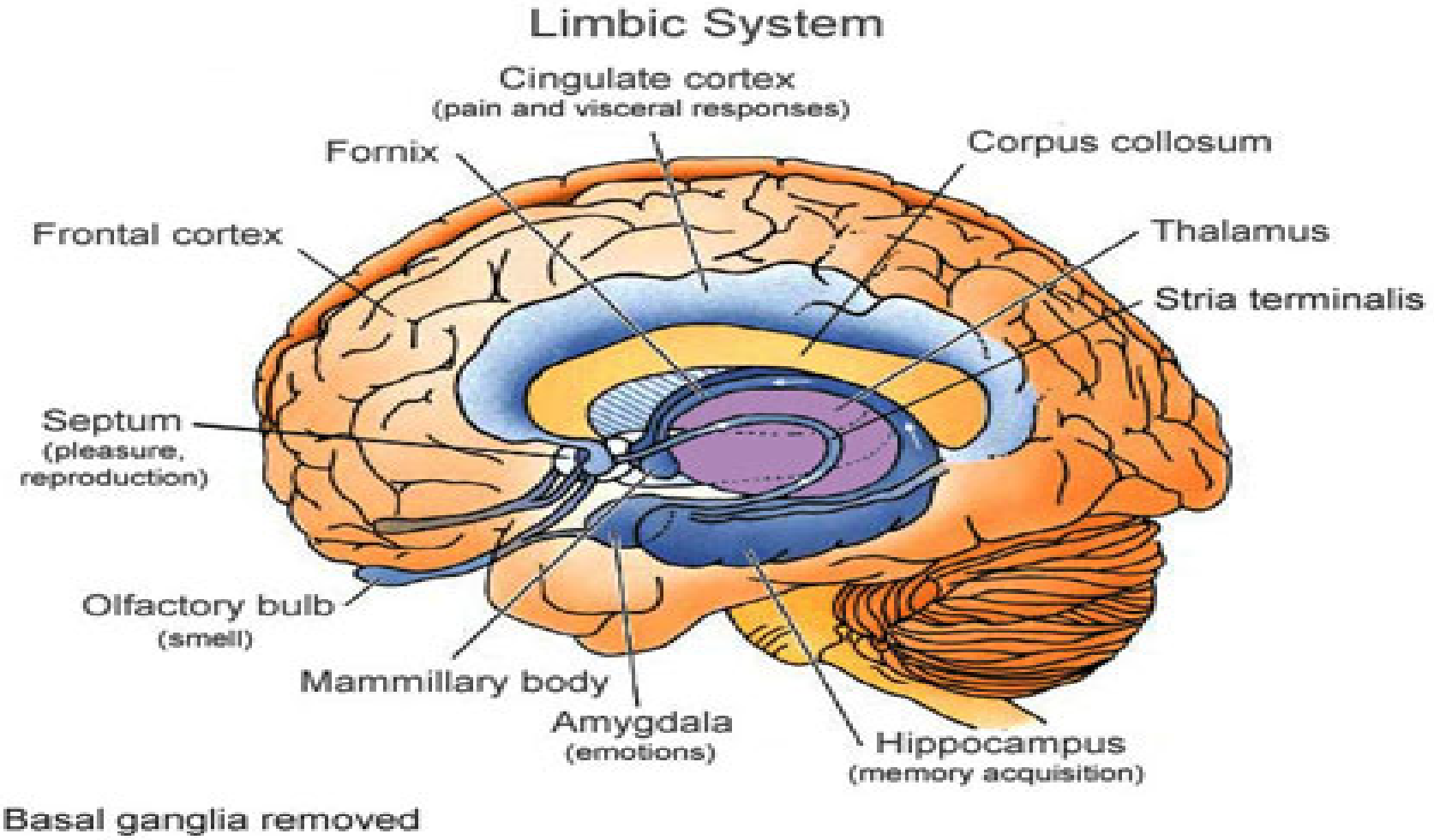
Biopsychosocial Model

Limbic system (houses emotional life). Amygdala = emotional learning/processing. HPA axis regulates biological responses to stress. Adverse childhood experiences can shape developing architecture of brain.



Threat → anxiety → alarm → ↑ cortisol → F/F/F

Neuro imaging: mid-brain structure



Structural/Functional Brain Differences

- DBD cluster in families
- Neurophysiologic/structural correlates with DBD
- ↓ size/activity of amygdala, insula, prefrontal cortex, cyngulate gyrus

(Balia 2018)

Developmental trajectory

- Multiple pathways to DBD
- Parents role is “well established”
  - Parental stress/mental health → DB
  - Coercive caregiver interaction
    - Challenge each other until fatigued and give in
    - Undesirable behaviors reinforced
  - Corporal punishment/harsh parenting
  - Inconsistent parenting/discipline
  - Negative parent affect
  - “Spoiled Kid Syndrome” (permissive parenting)

Main contributing factors to developing emotional competence?

Parental socialization of emotion

Healthy attachment

Continued healthy P-C relationship

Effective communication of expectations

Discipline limits/consequences

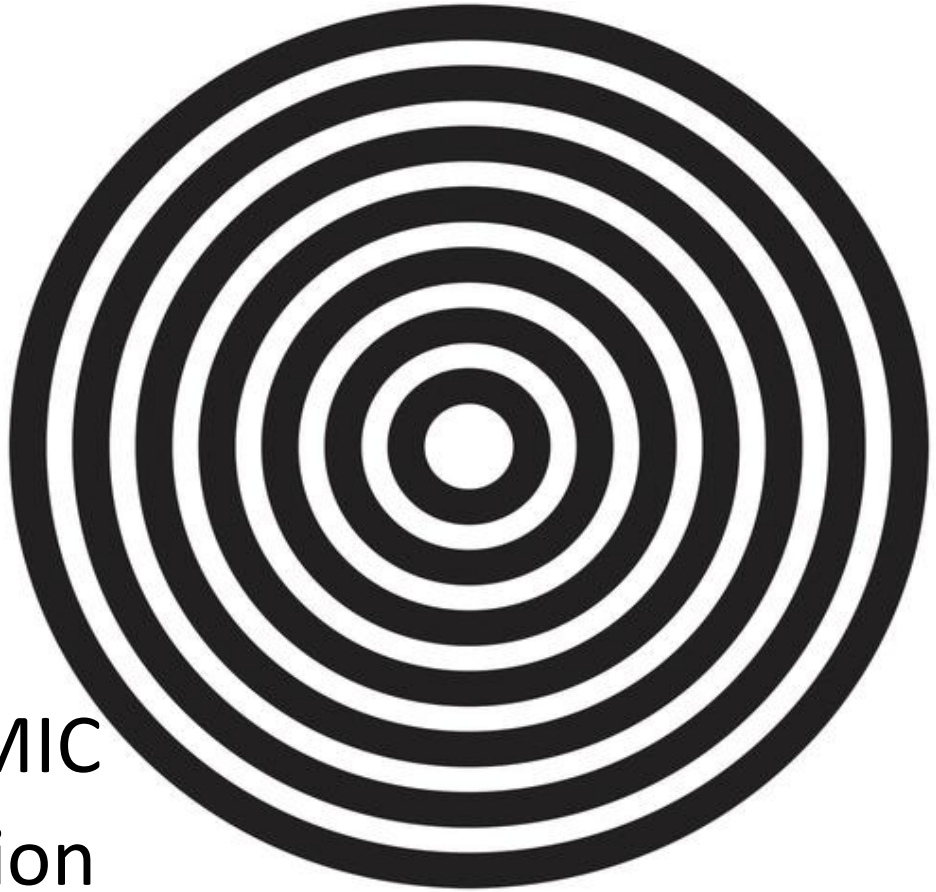
Emotional coaching throughout

Some do not follow socialization path.


Without early intervention and treatment, disruptive behaviors can worsen and create significant academic and behavior problems across the lifespan.

Treatment

- Parenting
- Stimulant
- Guanfacine
- SSRI/SNRI
- Antipsychotic
- Mood stabilizer
- Hospitalization/PMIC
- Foster care/adoption



Psychosocial Interventions

- **Parent Management Training (PMT)**
  - Trains caregiver, not child focus
  - ↑ parenting techniques, competence, confidence
- **Parent Child Interaction Therapy (PCIT)**
  - Dyadic P-C relationship focus
  - Δ maladaptive interactions
- **Individual behavioral therapy**
  - CBT, anger management, problem solving

Psychosocial Rx downfall

- Most effective to Δ disruptive behaviors
- Participant buy-in/engagement essential
- “rarely engage”
- Child welfare involved families in EB BPT > difficulties than general population.
- Multiple obstacles → drop-out rates 30-70%
- Takes long/hard commitment
- Negative prior experiences with the “system”

Combined/multimodal RX

- 1st line = child, parents, family, school (IEP) psychosocial interventions
- When psychosocial ineffective, not enough, or safety concerns, then adjunct with pharmacological interventions.
- More serious = greater medication need to help modify behaviors and allow them to participate in daycare, school, and social opportunities.

Psychostimulants (ADHD)

- **Methylphenidates**
- **Amphetamines**
- Short-acting and long-acting
- Many different formulations/dosages
- Effect size: medium/large (0.78)
- Dose/effect response
  - If suboptimal response, increase dose before changing medications, if tolerating OK.

Methylphenidate vs PCIT

- 1st study comparing psychosocial Rx with pharmacological
- Effect size > for behavior sx than ADHD sx
- Superior to PCIT
- Immediate vs PCIT time, effort, patience
- Psychosocial > dropout

(Veen-Mulder, 2018)

Alpha 2 receptor agonists:

- **Guanfacine** (1mg-4mg /d)
- **Clonidine** (0.1mg to 0.6mg/d)
- Superior to placebo in children
- Short-acting/long-acting
- Monotherapy/Adjunctive
- Rebound tachycardia/hypertension missed doses
- ½ tab (0.5mg) at bedtime x 1wk; then give in morning instead of bedtime. Titrate (short-acting) qd → bid → tid → qid → long-acting
- Long-acting (Intuniv/guanfacine XR): 1mg, 2mg, 3mg, 4mg

Anxiety/Mood disorders (SSRI/SNRI)

- DMDD, adjustment reaction w depression, dysthymia
  - Fluoxetine (Prozac) 10mg titrate ↑
  - Atomoxetine (Strattera) 1.4mg/kg/d
  - Buproprion (Wellburin) vs SSRI sexual side effects
- Anxiety/PTSD/adjustment reaction w anxiety
  - Sertraline (12.5mg titrate ↑)
- Serotonin syndrome
- Black box warning

Second generation antipsychotics (SGA)

- When psychosocial Rx and stimulants insufficient, SBA's efficacious in the management of aggression
- First line SGAs: risperidone, olanzepine, quetiapine, and aripiprazole
- Adverse effects: weight gain, metabolic syndrome, cardiac irregularities, hyperprolacemia
- Monitor labs: FBS, HgA1c, and lipids
- Off-label

(Balia, 2018)

Risperdal

- Most studied SGA Rx aggression in children
- Large effect size = 0.9 (Balia, 2018)
- Quality of evidence: high
- Magnitude of benefit: moderate/large
- Side effect burden: major
- Strength of recommendation: conditional ↑
- Dosing: 0.5mg -4.0mg/d (Gorman, 2015)

AAP guidelines (2012)

1. Engage patient/parents initially
2. Thorough initial work-up
3. Assess Rx effects with standardized measures
4. Assess risk/refer when acute A/A
5. Track and reassess
6. Collateral information
7. Psychoeducation
8. Plan Rx with family
9. Community supports

Center for Education & Research on Mental Health Therapeutics funded by Agency for Healthcare Research & Quality

Canadian Guidelines on Pharmacotherapy for Disruptive & Aggressive Behavior in Children & Adolescents (Gorman et al, 2015)

- Center for Education & Research on Mental Health Therapeutics
- Quality of evidence
- Magnitude of benefit
- Side effect burden
- Strength of recommendations

Strength of recommendations

- Psychostimulants: strong (↑↑)
- Guanfacine: conditional (↑)
- Clonidine: conditional (↑)
- Atomoxetine: conditional (↑)
- Risperidone: conditional (↑)
- Quetiapine: conditional (↓)
- Valproate: conditional (↑)
- Carbamazepine: strong (↓↓)

Medication can help parents, daycares, and schools manage difficult children with disruptive behaviors.

Not allowing children the benefits of medication can negatively affect their ability to participate in school. Critical to manage them carefully while monitoring the balance of improvement with adverse effects that may happen. Successful therapy entails careful dose finding and the right combination of medication.

Placements

- PMIC
- Hospital
- Foster care (+/-)
- Adoption (+/-)
- Biological
- Legal (Juvenile Court System)

Success Story

- Abandoned by biological parents
- Raised by adoptive relatives
- Truant school/wrecked car
- Three placements before foster care in Oelwein
- Improved school attendance/engagement
- Jobs
- Graduate next week with educational/job plans
- Show choir (The Greatest Showman)
- Last song: ***We are the children***

Resources

- Available