

Angry, Naughty Children

The Disruptive Behavior Disorders

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OUTLINE

- Definition and Clinical Picture
- Prevalence and Trends
- Etiology and Development
- Risk Factors
- Treatment (community, individual, medication)
- Common Clinical Situations (ADHD, aggression)

Oppositional Defiant Disorder

- Recurrent pattern of negativistic, defiant, disobedient and hostile behavior towards authority (>6 months)
- Clinical presentation: defiance, anger, quick temper, bullying, spitefulness, usually before 8 years
- Course: usually resolves with time, one-third develop conduct disorder within 2 to 3 years, high rate of comorbidity

ODD vs. Normal Kid

- Tom
- David
- Chief complaint: Angry, naughty child

ODD vs. Normal Kid

- Is it impairing?
- Are symptoms reported at home *AND* at school?
- Is it in context of a new temporary stressor?
- How well did they function in the past?

Conduct Disorder

- Repetitive and persistent behavior that violates basic rights of others or societal norms
- Clinical presentation: aggression, property destruction, theft, deceit, truancy
- Prognosis depends on age of onset, presence of aggression, and socialization
- Boys: more persistent, up to 80% continue to have symptoms in two years
- Girls: less persistent, but they develop more depression and anxiety

Is it really an illness?

- Symptoms intercorrelate highly
- Genetic
- Cross cultures and history
- But, heterogeneous etiology, natural history, response to treatment, and outcome

HEART FAILURE METAPHOR

- Extremely common in clinic and very impairing
- Defined by end result, not cause.
- Focus on risk stratification and reduction
- High cost (a CD kid costs ten times as much to society)

WHEN ITS NOT JUST A PHASE

- Younger age of onset
- High variety and number of symptoms
- Proactive aggression and cruelty
- Behavior is atypical for age and gender
- Presence of weapon
- Not in a social context

ASSESSMENT

- ODD: Vanderbilt Scales and report from multiple domains
- CD: (no good scale), reports from multiple domains
- Rule out drugs, ADHD, mood disorders, psychosis, neurologic illness, gang involvement, acute stressors, abuse

DEMOGRAPHIC CONSIDERATIONS

- Age: older = less aggression but more rights violations
- Gender: ~4x more prevalent in boys. Girls have more covert behaviors and find more antisocial partners (early pregnancy)
- Socioeconomic Status: CD and ODD more common in low SES, early onset CD more common in low SES and/or inner city. Can CD be protective?*

PREVALENCE

- 5% of children 6-18y have ODD or CD currently
- ODD: 2-16% of community, 50% of clinic population
- CD: 1.5-3.4% of community adolescents, 30-50% in clinic population
- Adult antisocial personality disorder: 2.6%
- Slight increase by generation, by survey and arrest records (recall and police bias)
- Gender differences diminishing, but thought to be at least twice as common in boys

PROGNOSIS and OUTCOMES

- High cost to individual, family and society
- Psychiatric comorbidity
- Substance abuse
- Educational problems
- Unemployment
- Delinquency/Criminality
- Violent relationships
- Teen pregnancy
- Generational transfer

COMORBIDITY*

- ADHD 10x more common in kids with ODD or CD
- Major Depression 7x more common
- Substance Abuse 4x more common
- Anxiety less common but social withdrawal more common

DEVELOPMENT

- Infants show early prosocial behavior
- Toddlers are normally defiant, in order to develop autonomy
- Defiance can emerge at 3 years
- Aberrant path: Tantrums at 5, arguing at 6, lying at 8, bullying at 9, stealing at 12*
- Aggression: common in 4-8yo, only severe acts continue and increase in adolescence

ETIOLOGY/RISK FACTORS

GENETICS

- Twin studies show correlation across genders for both ODD and CD (50%)
- More so with aggressive and reactive symptoms.
- Covert CD symptoms are more environmental
- Early criminality is more environmentally caused, while late CD is more related to genetics.
- Parental depression correlated with earlier onset and more persistent CD.

NEUROANATOMY

- Frontal lobe: decreased glucose metabolism correlates with reactive violence
- Abnormal EEG over frontal lobe correlates with negative affective style in ODD
- Orbitofrontal lobe: damage leads to increased impulsivity and aggression*
- Temporal lobe: damage associated with unprovoked aggression
- Amygdala: interpretation of social cues and facial cues
- Amygdala-Prefrontal pathway: suppression of negative emotions

NEUROCHEMICALS

- Serotonin: high blood levels and low CSF metabolites correlated with aggressive CD
- Cortisol: low salivary levels correlated with ODD and early onset aggression. Low cortisol also runs in the family of people with ODD, CD and APD
- Testosterone: Complicated. Only associated with early onset aggression when at abnormal levels

UNDERAROUSAL

- Consistently found to be correlated with antisocial behavior in children and adolescents
- Low HR predictive of later criminality, Lower skin conductance correlates with ODD/CD
- ODD kids have lower resting HR but have higher HR when frustrated
- Marker for lack of protective anxiety?

LEAD*

- Presence at age 6 predicts low IQ, inattention, restlessness
- Presence at age 11 predicts aggression, delinquency, somatic complaints

TEMPERAMENT

- Irritable, difficult children may evoke dysfunctional parenting*
- Attachment not predictive of ODD/CD
- Early temperament is weakly predictive of DBD
- Inhibited temperament is protective
- Twin studies suggest genetic component to temperament, emotionality and aggression

INTELLIGENCE and LEARNING

- High verbal IQ is protective, unless there is APD family history
- Psychopathic boys have normal IQs, higher than boys with CD and no psychopathy
- Girls with early onset CD tend to have high IQ
- Reading problems (left temporal cortex) associated with DBD and crime, (>girls)*

OTHER NEUROPSYCHOLOGY

- Behavioral (not cognitive) impulsivity found in early onset antisocial behavior
- Behavioral inhibition is protective, but social withdrawal is the greatest risk!*
- Delinquent juveniles have social cognition biases (hostile, egocentric), less empathy*
- Sociomoral reasoning deficits in CD are not consistently found*

PUBERTY AND HORMONES

- Girls with early puberty have higher CD/ODD
- Traditional wisdom?
- Treating early puberty (boys and girls) can cause increased aggression
- Hormone levels do not correlate with CD/ODD in typically developing

PARENTING

- Parent psychopathology more predictive than bad parenting*
- Low involvement, high conflict, poor monitoring, and harsh inconsistent discipline correlate with DBD*
- Physical punishment predicts aggression
- Lack of warmth and involvement predict oppositional behavior*
- Reciprocal relationship*

CHILD ABUSE

- Physical abuse and neglect predict APD, criminal behavior, and violence
- Abused children have social processing deficits
- Sexual abuse correlates with CD in victims that are mid-childhood age and older
- Sexual abuse victims of both genders develop DBD, girls have more depression

PEERS

- Rejected by peers but peers also reinforce by acquiescence
- Affiliation with like peers reinforces antisocial behavior*
- Rejection is more intense for females
- Females more sensitive to rejection as predictor for future behavior

NEIGHBORHOOD

- A bad neighborhood is more predictive of DBD, than it is for any other psychopathology
- Public housing outweighs virtually all protective factors
- Factors: disorganization, drugs, adult criminals, racial prejudice, poverty, unemployment

LIFE STRESSORS and COPING

- Stressors lead to disruptive behaviors, which in turn increase stressors.
- Girls with CD have high “emotion focused” coping, poor “active” coping, and more common self harm*

EVALUATION

- Rule out co-morbid conditions (ADHD, substance abuse, mood, anxiety)
- Look for recent changes and new stressors
- Evaluate for modifiable risk factors
- Information from multiple sources (parent, teacher, probation)
- Vanderbilt Scales, Overt Aggression Scale

TREATMENT MENU

- Education
- Treat co-morbid medical and psychiatric conditions
- Psychotherapy
- Parenting Support
- Community/Multimodal services
- Medication (least important)

What's not effective?

- Boot camps
- Summer jobs
- Peer counseling
- Home detention
- Scared straight

EDUCATION

- Risk factors, emphasizing what is modifiable (drugs, toxic exposure, parenting/abuse, parent mental illness, learning problems, peers, community)
- Safety precautions (drugs and weapons in the home, suicide and violence)
- Available resources (hospitals, crisis hotlines, referrals)
- Communication between providers and services is extremely important

COMORBIDITY

- ADHD: medication and parenting support +/- behavioral therapy
- Substance abuse: targeted treatment, motivational interviewing, consider residential
- Mood/Anxiety: individual therapy (CBT) +/- medication

PSYCHOTHERAPY

- Should be integrated into a broader program
- Child focused problem solving
- Social skills (group)
- Moral development
- "Probably efficacious:" anger/assertiveness training, rational emotive therapy

PARENTING SUPPORT

- Parent management training (PMT): effective across settings and over time, but does not bring symptoms out of clinical range.
- Parent-Child Interaction Therapy (PCIT): clinically significant improvement with ODD, particularly with the most young children. 1. Child directed interaction, 2. Parent directed
- Family Therapy has greater drop-out than PMT

PARENTING IN PRIMARY CARE (insert group)

In randomized controlled trial of bibliotherapy versus 12 session “Incredible Years” program, outcomes were equivalent and clinically significant (see graph)

www.incredibleyears.com Free and Purchased material

BIBLIOTHERAPY

- 1-2-3 Magic (2004) by Thomas Phelan, PhD (multiple languages and video)
- Winning the Whining Wars, and other Skirmishes (1991) by Cynthia Whitham MSW
- The Difficult Child (2000) by Stanley Turicki, MD
- Parenting Your Out-of-control Teenager by Scott Sells, PhD

PARENTING

- Coercive family relationships: how interaction can encourage oppositional behavior
- Positive reinforcement: rewards for positive behavior (greatest factor in behavior change!)
- Balanced emotional valence: parents’ emotions are contagious
- Time outs: short and consistent!
- Response cost: withdrawing rewards: less efficacious but most frequently used
- Token economy: needs to be consistent and meaningful to the kid
- Consistency of response: across place and time
- Priorities and sharing responsibility

COMMUNITY

- Get Creative!, use anything that reduces contact with delinquent peers and increases prosocial behavior, positive adult contact and monitoring
- Scouts, Boys and Girls Clubs, Big brother/sister, after school activities and sports, “communal parenting”
- Be careful of bringing together kids with ODD/CD.
- More formal programs: treatment foster care, school-based programs, bullying programs

MULTIMODAL SERVICES

- Strongest evidence for actual therapeutic effect, but hardest to acquire
- Availability greatest for those in public systems: foster care, juvenile justice, public mental health
- Multisystemic therapy: family, peer, school, and neighborhood interventions. Provides extensive supervision and decreases anti-social behavior and recidivism. Cost effective for communities.
- DSHS explanation of Wraparound Services
<http://www.dshs.wa.gov/mentalhealth/guidetotailoredcare.shtml>

PHARMACOTHERAPY

- Consider if symptoms severe and unresponsive to psychosocial interventions
- ODD and CD without comorbidity is not robustly responsive to medication
- First, rule out and treat ADHD, depression, Bipolar, psychosis.
- Some evidence that improvements in comorbid conditions will correlate with improvements in ODD/CD
- Monitor for medication diversion (not just stimulants!)
- Only methylphenidate and risperidone have some evidence for CD symptoms in isolation

ADHD and ODD/CD

- ODD is most the common comorbidity in ADHD, occurring in 60%
- Earlier age of onset and impairment (cost, number of meds, school performance)
- More likely progression to CD and other psychiatric illness
- More aggression and substance abuse (double the risk, compared to ADHD alone)

ADHD + ODD/CD Treatment

- MTA: ADHD similar to combined condition in treatment response (both ADHD and ODD symptoms)
- Non-stimulant medications are not as consistently beneficial for combined condition
- Combined condition has 11x the medication non-compliance
- Treatment should be combined with parenting and/or behavioral therapy
- For ADHD in general, combination therapy is not significantly different from medication when looking at “efficacy”, but combined therapy is better when comparing “normalization,” and dosage of medication and parent preference

AGGRESSION

- Most common reason for medication other than comorbid diagnosis
- Overt, reactive aggression is most responsive to medication
- Covert, premeditated aggression is less responsive
- Clear quantifiable goals, use of scales (OAS)
- Starting multiple interventions (meds or therapy) can lead to unnecessary “polytherapy”
- Stop interventions that don’t help

AGGRESSION TREATMENT

- Treat comorbid conditions
- Early intervention is key, behaviors solidified by age 10-12 years
- 2-6yo: parent management training (PCIT, PMT)
- 6-12yo: peer mediation, anger management, conflict resolution training, and assertiveness
- Teens: multimodal therapies, CBT
- Educational: speech and language pathology (expressive/receptive), reading and writing learning disorders

AGGRESSION PSYCHOPHARMACOLOGY

- Atypical Antipsychotics: risperidone is the most studied in kids. Can decrease hostility, impulsivity, hyperactivity and aggression in juveniles with CD, BAD, Psychosis, Autism spectrum, intellectual disability
- Mood Stabilizers: Lithium has large effect size (>1) in multiple trials. Depakote has some efficacy, may be greater at higher serum levels. Carbamazepine has not shown good benefit.
- Alpha agonists: Clonidine modestly effective in reducing aggression, even without ADHD. Guanfacine has not been really studied.
- Stimulants: Very effective when there is comorbid ADHD but questionable without ADHD

Thank you for coming!

Please feel free to email me with any questions: Michael.kisicki@seattlechildrens.org.

For specific clinical questions, contact PAL at 1-866-599-PALS

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Yudofsky SC, *OVERT AGGRESSION SCALE*

Overt Aggression Scale (OAS)	
Stuart Yudofsky, M.D., Jonathan Silver, M.D., Wynn Jackson, M.D., and Jean Endicott, Ph.D.	
Identifying Data	
Name of patient	Name of rater
Sex of patient: 1 male 2 female	Date / / (mo/da/yr) Shift: 1 night 2 day 3 evening
<input type="checkbox"/> No aggressive incident(s) (verbal or physical) against self, others, or objects during the shift (check here).	
Aggressive Behavior (check all that apply)	
Verbal aggression	Physical aggression against self
<input type="checkbox"/> Makes loud noises, shouts angrily <input type="checkbox"/> Yells mild personal insults (e.g. "You're stupid!") <input type="checkbox"/> Curses viciously, uses foul language in anger, makes moderate threats to others or self <input type="checkbox"/> Makes clear threats of violence toward others or self (I'm going to kill you.) or requests to help to control self	<input type="checkbox"/> Picks or scratches skin, hits self, pulls hair (with no or minor injury only) <input type="checkbox"/> Bangs head, hits fist into objects, throws self onto floor or into objects (hurts self without serious injury) <input type="checkbox"/> Small cuts or bruises, minor burns <input type="checkbox"/> Mutilates self, makes deep cuts, bites that bleed, internal injury, fracture, loss of consciousness, loss of teeth
Physical aggression against objects	Physical aggression against other people
<input type="checkbox"/> Slams door, scatter clothing, makes a mess <input type="checkbox"/> Throws objects down, kicks furniture without breaking it, marks the wall <input type="checkbox"/> Breaks objects, smashes windows <input type="checkbox"/> Sets fires, throws objects dangerously	<input type="checkbox"/> Makes threatening gesture, swings at people, grabs at clothes <input type="checkbox"/> Strikes, kicks, pushes, pulls hair (without injury to them) <input type="checkbox"/> Attacks others, causing mild to moderate physical injury (bruises, sprain, welts) <input type="checkbox"/> Attacks others, causing severe physical injury (broken bones, deep lacerations, internal injury)
Time incident began ____:____ am/pm	Duration of incident: ____:____ hours/minutes)
Intervention (check all that apply)	
<input type="checkbox"/> None <input type="checkbox"/> Talking to patient <input type="checkbox"/> Closer observation <input type="checkbox"/> Holding patient	<input type="checkbox"/> Immediate medication given by mouth <input type="checkbox"/> Immediate medication given by injection <input type="checkbox"/> Isolation without seclusion (time out) <input type="checkbox"/> Seclusion
<input type="checkbox"/> Use of restraints <input type="checkbox"/> Injury requires immediate medical treatment for patient <input type="checkbox"/> Injury requires immediate treatment for other person	
Comments	

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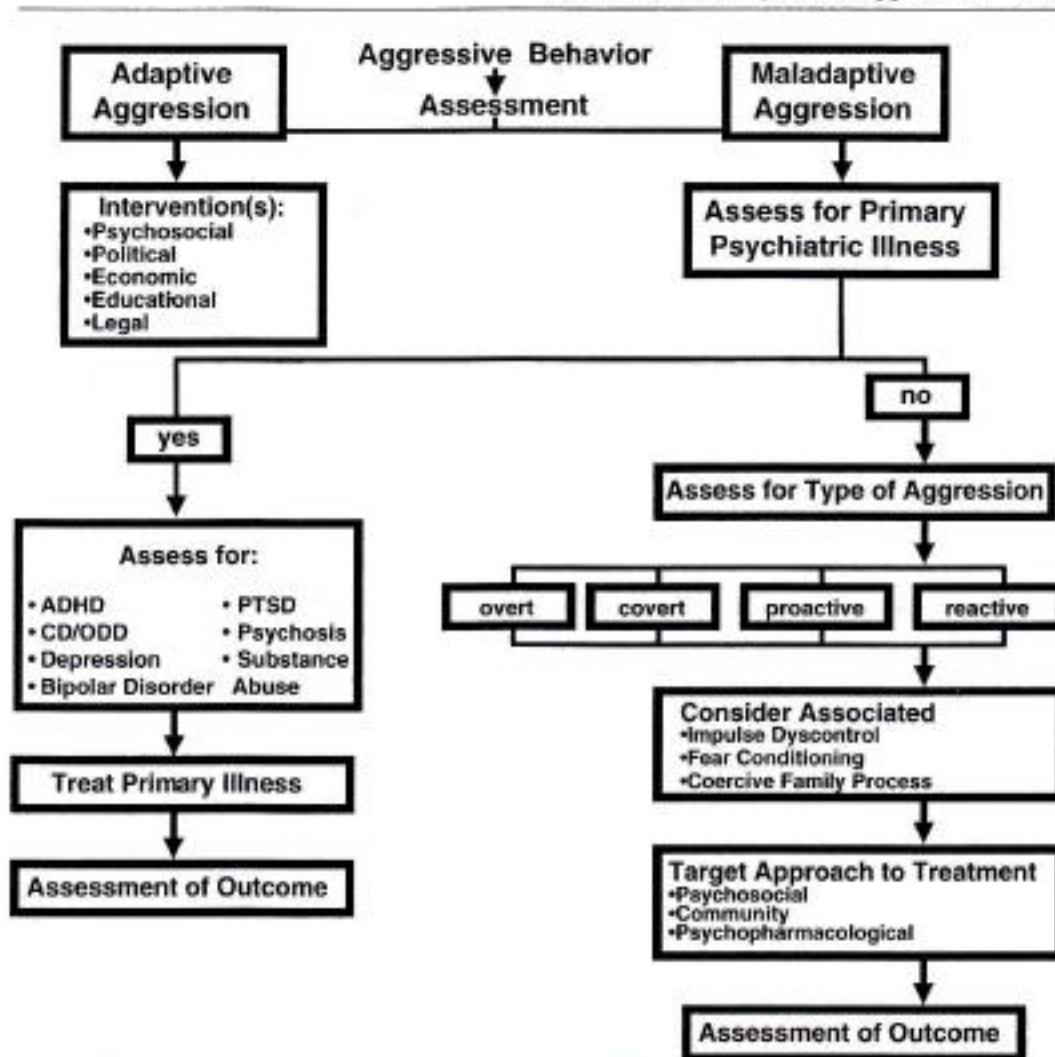


Figure 16.2 A systematic approach to the assessment and treatment of the aggressive child or adolescent.

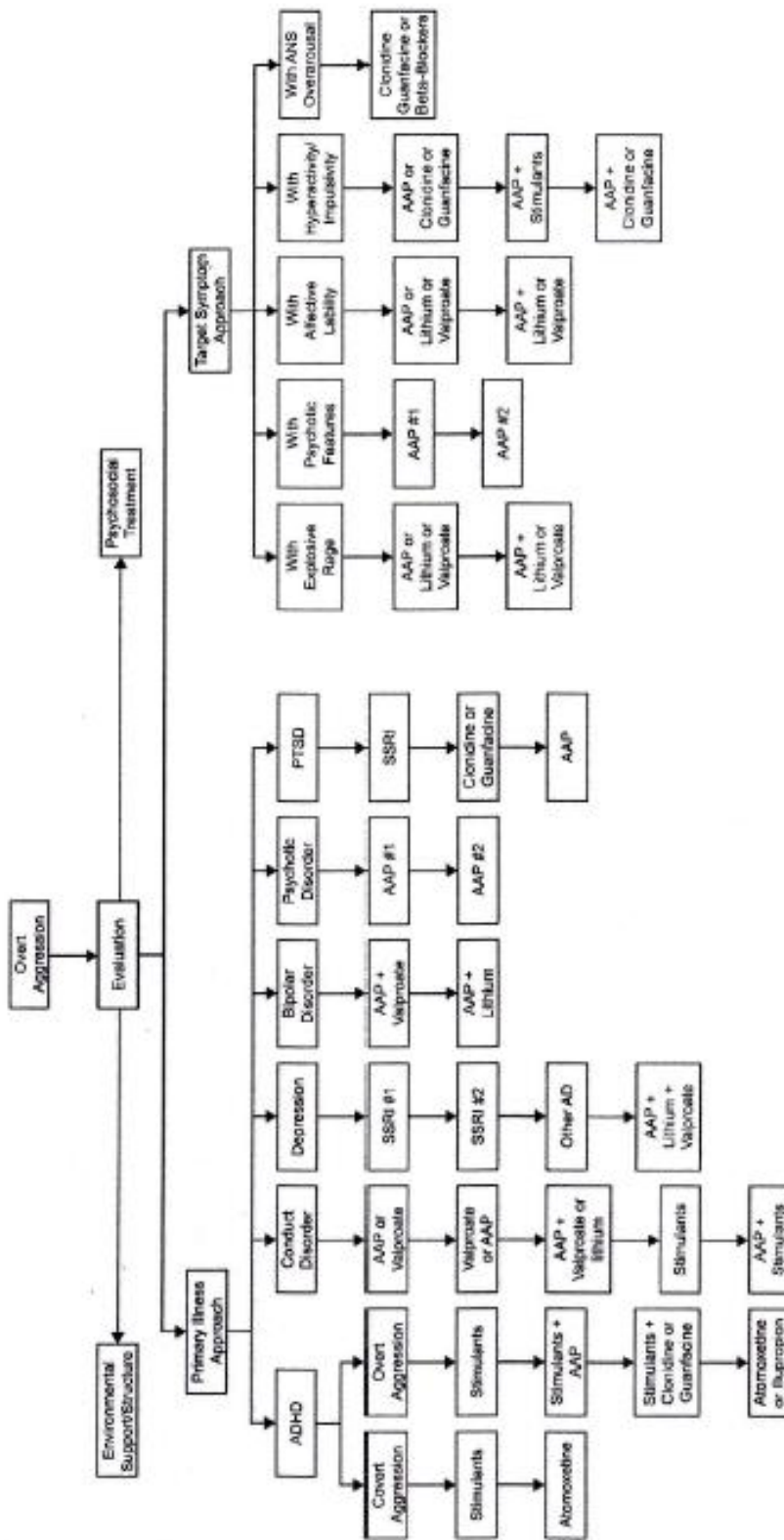


Figure 16.1 A clinical algorithm for the medication treatment of maladaptive aggression in juveniles.

The left side of the algorithm outlines a primary illness approach to the medication treatment of aggression; the right side illustrates a target symptom approach. AAP = atypical antipsychotics; SSRI = selective serotonin reuptake inhibitor; AD = antidepressants; PTSD = posttraumatic stress disorder; ANS = autonomic nervous system. Source: Adapted from Connor DE *Aggression and Antisocial Behavior in Children and Adolescents: Research and Treatment*. New York: Guilford Press, 2002 pp. 389–390. Used with permission. Copyright Guilford Press, 2002.